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CLIL *beyond* the classroom

A pedagogical framework to bridge the gap
between school and museum content and
language integrated learning

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Foreword

When I started thinking about doing a PhD in Language Education, I was not sure I wanted to concentrate on language learning in the museum context. Of course, I had a thriving passion for museums and even a stronger one for language learning and teaching, and the integration of the two seemed like an interesting area to investigate. However, I also had a powerful urge for my research to be useful, to make a difference on individual lives.

In the first few months of my PhD journey, I kept asking myself this very same question: am I really fulfilling my aim of being of use to others through my research? I had to be realistic: I was not going to cure cancer, or find a solution to global warming. Mine would be a drop in the ocean of foreign language education research, and it would explore a possible solution to bridging the gap between formal (school) and non-formal (museum) foreign language learning and teaching, with specific attention to the Italian context. Was this going to qualify as socially useful research, where by “social” I meant that it would include multiple actors of the current society, and by “useful”, that it would have a positive impact on their personal and professional lives?

I will not provide you with an answer now, but leave you to the research participants’ words and numbers, to the narrative of how this particular project developed and of what model and artefacts it produced, and to my own, and to those of my fellow researchers’ reflections, beliefs and attitudes. Indeed, while the main audience of this written work is the academic community, I also and particularly want to reach the educational community at large: one that ought to be inspired to produce innovation well beyond the current project so as to create a sustainable teaching and learning ecosystem committed to improving young people’s holistic foreign language learning.

Abstract

In the last two decades, several studies have reported on the benefits of Content and Language Integrated Learning (CLIL) on students' affective and cognitive gains, and just as many pedagogical frameworks exist to inform teachers' design and implementation of CLIL modules/units. However, CLIL is still confined within the classroom walls, and no study has yet investigated CLIL beyond the classroom.

This PhD thesis addresses the above-mentioned gap by reporting on a three year action research project in collaboration with the Foundation Civic Museums of Venice and the *Liceo artistico* Marco Polo and aimed at: (i) developing a pedagogical framework to bridge the gap between CLIL learning at the museum and at school, (ii) understanding the impact of participating in a CLIL museum visit on upper secondary school students' attitudes and perceived learning outcomes. The project involved several actors - the museum staff, 322 upper secondary school students, 11 upper secondary school teachers and the Researcher-practitioner – working in three different institutions: the museum, the school, and the university.

A mixed method research design was implemented and results reveal that, despite the difficulty in integrating CLIL and museum-based pedagogies, participating in the CLIL museum visit can have a very positive impact on students' attitudes towards the use of the foreign language in an authentic context and on their perceived learning outcomes. Also, we found that there is a connection between students' attitudes towards CLIL beyond the classroom and their professional interests and type of school attended. Finally, a pedagogical framework was designed to support both museum educators and teachers' design and implementation of CLIL activities that bridge the gap between the classroom and the world beyond.

If we teach today's students as we taught yesterday's,

we rob them of tomorrow

John Dewey (1902)

1. Introduction

“From the standpoint of the child, the great waste in the school comes from its inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school.”

(Dewey 1907, 89)

The idea for this research came from the realisation that the boundaries between what and how we learn languages are now more blurred than ever before. The advent of technology, the mobility of people, ideas, and goods within and across countries, the needs and dynamics of what Bauman calls the “liquid society” have resulted in dramatic changes in educational policies at national and international level. According to the OECD “the growth of human capital to ensure economic success requires the development of ‘the knowledge, skills competences and attributes that allow people to contribute to their personal and social well-being and that of other countries’” (2007 quoted in Coyle, Hood, and Marsh 2010, 154). In the light of our multilingual society, knowing more than one language has thus become a fundamental component of human capital, and the European Union has placed great efforts in promoting the most innovative approaches to language teaching and learning.

In the last twenty years, CLIL (Content and Language Integrated Learning) has certainly gained momentum across and outside Europe as one of such approaches. The recent report on the state of the educational policies regarding the teaching and learning of languages in 42 European countries (European Commission 2017) shows how, as of today, all the states have, to different degrees and in different ways, implemented CLIL in their educational system. The reasons behind this trend are to be found in the belief that CLIL promotes a more authentic and motivating use of the foreign language (henceforth FL). Not only have several studies shown that CLIL students are more motivated to learn the FL (Lasagabaster 2011; Lasagabaster and Sierra 2009; Seikkula-Leino 2007), but they have also been found to be more linguistically competent than their non-CLIL counterparts (Lasagabaster 2008; Coyle 2013), while no negative repercussion on their L1 development and content learning has been detected (Dalton-Puffer 2011). However, CLIL programmes are still confined within the walls of the school classroom, and thus seem to be one step behind more “real life” experiences, such as study abroad and service learning programmes (those that combine learning objectives with community service; see Canuto 2016). As

Menegale (2013, 1) points out, “one of the goals of language learning is that students can both apply outside the classroom what they learn at school and, vice versa, can use in classroom what derives from their experience in real life”. Sylvén and Sundqvist (2015, 59) underscore that CLIL can very well take place outside of the school context, especially because “it seems particularly effective when learners use English while at the same time there is content of some type needed to be learned”. Curiously enough, museums in Italy have recently moved in this direction by offering museum learning programmes that integrate content and FL learning (see Fazzi 2018). However, according to Sylvén and Sundqvist (2015), students’ engagement in out-of-school FL activities is still rather unexplored in the literature, and, to our knowledge, no study has yet investigated out-of-school CLIL. This deficit calls for empirical research that, on the one side, investigates the affordances of museums for FL learners, and on the other, offers methodological guidelines to both museum educators and teachers to collectively bridge the gap between CLIL education in and *beyond* the classroom.

In Paragraph 1.1., we will briefly outline our research, while in Paragraph 1.2., we will describe how this thesis is structured.

1.1. The current research

In trying to address the above-mentioned gap, our thesis aims at: 1) defining a pedagogical framework that could help bridge the gap between CLIL at school and at the museum, and 2) exploring the impact that participating in a CLIL museum visit has on students’ attitudes and perceived learning outcomes. As for the first aim, we devised the following research questions:

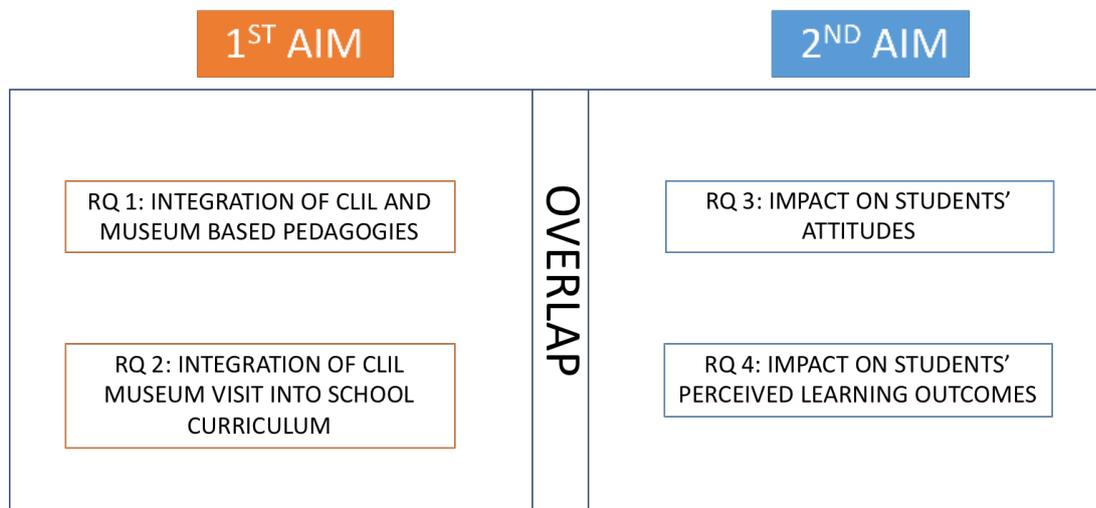
- 1) What aspects need to be taken into consideration when integrating CLIL and museum-based pedagogies?
- 2) What aspects need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum?

As for the second aim, we devised the following research questions:

- 3) What impact does participation in the CLIL museum visit have on students’ attitudes?
- 4) What impact does participation in the CLIL museum visit have on students’ perceived learning outcomes?

Our research process can be visualised in Figure 1:

Figure 1: *Visual representation of research process*



We decided that the best way to answer the abovementioned research questions was to design an action research project in collaboration with the Foundation Civic Museums of Venice, and the *Liceo artistico* Marco Polo. According to Ebbutt (1985 quoted in Coonan 2000, 9), “action research is the systematic study of attempts to change and improve educational practice by groups of participants by means of their own practical actions and by means of their own reflections upon the effects of those actions”. Within this methodological framework, our action plan consisted of the following stages (see Table 1):

Table 1: *Plan of the current action research project (adapted from Kemmis and McTaggart 1988)*

1) Plan and Act stages

Development and implementation of three CLIL museum programmes and of a school-museum integrated CLIL module (see Chapters 6 and 7), with the aim of: (i) responding to the principles of museum-based learning and pedagogies, (ii) *scaffolding* and encouraging students' active and collaborative engagement with museum contents through English as a FL, and (iii) promoting the integration of CLIL museum visit in the upper secondary school curriculum (see Chapters 6 and 7).

2) Observation stage

Design of four main research questions, which aimed at exploring participants' reflections, comparisons, and evaluations as regards the integration of CLIL and museum-based pedagogies across the school and museum contexts, and investigating students' attitudes and perceived learning outcomes through using eight research instruments (see Chapters 8).

3) Reflection stage

Design of a pedagogical framework, which, on the basis of the analysis and discussion of the findings to the four research questions, would respond to the pedagogical aims set in the "Plan" stage (see Chapters 9 and 10).

1.2. Overview of the thesis

The current research consists of two parts. In Part 1, we will present the literature that has informed our study, and which is related to three main fields of research: language learning beyond the classroom (Chapter 2), museum-based pedagogy (Chapter 3), and CLIL teaching and learning (Chapter 4). Thus, we will outline the brief literature review on language learning in the museum setting (Chapter 5). In Part 2, we will focus on our study. We will outline in detail the CLIL museum programmes developed at the Foundation Civic Museums of Venice (Chapter 6), and the school-museum integrated CLIL module at the *Liceo artistico* Marco Polo (Chapter 7). Then, we will outline the research methodology underpinning our study (Chapter 8), and present the analysis of the findings of our research project (Chapter 9), before discussing them (Chapter 10). Finally, we will present our conclusions, by highlighting both limitations and future developments (Chapter 11) of our research.

PART 1

The theoretical framework

2. Language learning beyond the classroom

Acquisition results from a combination of language instruction, exposure to language input (Krashen 1985 quoted in Benson 2011, 7), and opportunities to produce language input (Swain 1985 quoted in *ibid.*), and both academics and teachers agree that students “learn best when they combine classroom learning with out-of-class learning” (Benson 2011, 7).

According to Byalystok (1981), extramural exposure to a FL, that is the encounter that students have with the FL outside of the school context, can be defined as *functional practice*, as “the most functional situation” for language learning “would likely occur outside the classroom in a natural setting, where conveying the message is the only essential goal of the language occasion”. The implication is that language learning is not limited to the classroom but can potentially take place in any context, be it the family, an online/face-to-face tandem project, an after school programme, or the Internet (Hyland 2004; Reinders and Benson 2011; Nunan and Richards 2015; Sylvén and Sundqvist 2017). In this context, the true challenge for the contemporary researcher is not in demonstrating that language learning is ubiquitous in nature, but to describe what learning opportunities or affordances for language learning are specific to each context, how they are/can be exploited by learners, and how teachers should be involved (Reinders and Benson 2017, 561). If we really want students to fulfil their learning potential, we need both in- and out-of-class learning activities.

The main task of this chapter is to give an overview of the learning settings *beyond* the classroom that have received most attention in the literature, bringing to the fore the impact they have on learners’ language development and affective factors. In paragraph 2.1., we will outline the different interpretations and definitions related to language learning beyond the classroom. Thus, we will report on Benson’s (2011) framework as a possible tool to investigate, describe, and analyse language learning beyond the classroom (see paragraph 2.2.). In paragraph 2.3., we will summarise some of the literature on informal (see paragraph 2.3.1.) and non-informal (see paragraph 2.3.2.) language learning, before devoting attention to the emerging research on CLIL beyond the classroom (see paragraph 2.3.3.). In paragraph 2.4., we will move onto presenting some of the existing pedagogical frameworks on how the gap between in and out-of-school language learning can be bridged. Finally, we will explain the rationale for the current research.

2.1. What is learning beyond the classroom?

In the last two decades, learning beyond the classroom has established itself as an innovative field of research both in the educational sciences and applied linguistics. Unfortunately, confusion has crept in with alternative terms being used to define overlapping concepts. The result is a terminological jungle, in which different types of learning are conceptualised in different ways, as a result of different underpinning theories of learning.

In an attempt to shed light on the debate, the official journal of the European Union (European Commission 2012) gives the following definitions:

Formal learning means learning which takes place in an organised and structured environment, specifically dedicated to learning, and typically leads to the award of a qualification, usually in the form of a certificate or a diploma; it includes systems of general education, initial vocational training and higher education.

Non-formal learning means learning which takes place through planned activities (in terms of learning objectives, learning time) where some form of learning support is present (e.g. student-teacher relationships); it may cover programmes to impart work skills, adult literacy and basic education for early school leavers; very common cases of non-formal learning include in-company training, through which companies update and improve the skills of their workers such as ICT [i.e. Information and Communication Technologies] skills, structured on-line learning (e.g. by making use of open educational resources¹), and courses organised by civil society organisations for their members, their target group or the general public.

Informal learning means learning resulting from daily activities related to work, family or leisure and is not organised or structured in terms of objectives, time or learning support; it may be unintentional from the learner's perspective; examples of learning outcomes acquired through informal learning are skills acquired through life and work experiences, project management skills or ICT skills acquired at work, languages learned and intercultural skills acquired during a stay in another country, ICT skills acquired outside work, skills acquired through volunteering, cultural activities, sports, youth work and through activities at home (e.g. taking care of a child).

Keeping the distinction above, the European Centre for the Development of Vocational Training (CEDEFOP) also refers to intentionality as the dimension that distinguishes between formal and non-formal learning, on the one side, and informal, on the other (Cedefop 2007, 15). Indeed, while

formal and non-formal learning are intentional from the learner's point of view, informal learning is characterised by lack of intentionality as, in most cases, informal learning is non-intentional (or incidental/random; *ibid.*).

It needs to be highlighted that two main approaches have been adopted by researchers when trying to define the different kinds of learning: one that sees informal and formal learning as opposite poles (see Colley, Hodkinson, and Malcolm 2002; Hofstein and Rosenfeld 1996), and the other that interprets this distinction as more hybrid (see Eshach 2007).

In particular, on the basis of an extensive literature review, Colley, Hodkinson, and Malcolm (2002 quoted in Golding, Brown, and Foley 2009, 38) suggest that formal and informal learning "can be characterised and differentiated from each other" inasmuch they represent polar opposites (see Figure 2). Of the same opinion is UNEVOC (2008 quoted in *ibid.*), which classification also includes non-formal learning (see Figure 2).

Figure 2: Types of formal and informal learning: Table 1 (Colley, Hodkinson, and Malcolm 2002 as reported in Golding, Brown, and Foley 2009, 38) and Table 2 (UNEVOC 2008 as reported in Golding, Brown, and Foley 2009, 38)

Table 1: Possible ideal types of formal and informal learning (Colley, Hodkinson and Malcolm 2002, Table 7, pp.14–15)

Formal	Informal
Teacher as authority	No teacher involved
Educational premises	Non-education premises
Teacher control	Learner control
Planned and structured	Organic and evolving
Summative assessment/accreditation	No assessment
Externally determined objectives/outcomes	Internally determined objectives
Interests of powerful and dominant groups	Interests of oppressed groups
Open to all groups according to published criteria	Preserves inequality and sponsorship
Propositional knowledge	Practical and process knowledge
High status	Low status
Edificant	Not edificant
Measured outcomes	Outcomes imprecise, unmeasurable
Learning predominantly individual	Learning predominantly communal
Learning to preserve status quo	Learning for resistance and empowerment
Pedagogy of transmission and control	Learner-centred, negotiated pedagogy
Learning mediated through agents of authority	Learning mediated through leader democracy
Fixed and mediated timeframe	Open-ended engagement
Learning is the main, explicit purpose	Learning is either of secondary significance or is implicit
Learning is applicable on a range of contexts	Learning is context specific

Table 2: An overview of different conceptions of 'formal', 'non-formal' and 'informal', as applied to education and learning (UNEVOC 2008, Table 1: 6)

	Formal education	Non-formal education	Informal learning
Grew, Okech & Preston (2004)	"Organised" and "intentional" learning whose outcomes are accredited	"results from organised activities within or outside the workplace which involve significant learning which is not accredited"	"that which occurs 'unintentionally' or as a by-product of other activities" (GFCO (2003). New classifications of learning activities are currently being developed for the IIT Adult Education Survey and these will form a good comparison to IECILO definitions for informal and non-formal learning, especially for the developed world. (see below)
Tight (2004)	"Formal education is that provided by the education and training system set up or sponsored by the state for those express purposes" (Givonwofide 1993: 8)	"any organised, systematic, educational activity, carried on outside the framework of the formal system, to provide selected types of learning to particular subgroups in the population, adults as well as children. This defined, non-formal education includes, for example, agricultural extension and farmer training programmes, adult literacy programmes, occupational skill training given outside the formal system, youth clubs with subsidised educational purposes, and various community programmes of instruction in health, nutrition, family planning, cooperatives, and the like." (Chombe & Ahmed 1997: 8)	"The life-long process by which every individual acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment – at home, at work, at play from the example and attitudes of family and friends, from travel, reading newspapers and books; or by listening to the radio or viewing films or television. Generally, informal education is unorganised, unsystematic and even unintentional at times, yet it accounts for the great bulk of any person's total lifetime learning – including that of even a highly 'educated' person." (Ocasio & Ahmed 1997: 8)
		"education for which none of the learners is enrolled or registered" (OECD 1997: 11)	
Eurostat (2004)	"education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous 'ladder' of full-time education for children and young people, generally beginning at age of five to seven and continuing up to 20 or 25 years old. In some countries, the upper parts of this 'ladder' are organised programmes of joint part-time employment and part-time participation in the regular school and university systems: such programmes have come to be known as the 'dual system' or equivalent terms in these countries."	"any organised and sustained educational activities that do not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions, and cater to persons of all ages. Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out-of-school children, life skills, work skills, and general culture. Non-formal education programmes do not necessarily follow the 'ladder' system, and may have a differing duration."	"intentional, but it is less organized and less structured ... and may include for example learning events (activities) that occur in the family, in the workplace, and in the daily life of every person, on a self-directed, socially-directed or socially directed basis." As defined in the report of the Durston IY/MLL (paragraph 20, page 12). The UNESCO manual for statistics on non-formal education (page 6) reads: "Informal learning is generally intentional, but unorganized and unstructured learning events that occur in the family, the workplace, and in the daily life of every person, on a self-directed, family-directed or socially-directed basis."

After reviewing the definitions presented in the two figures above, Golding, Brown, and Foley (2009) propose a theory of learning, which is more organic in nature, and compare learning to producing food. Though politically marked¹, the analogy is useful inasmuch as formal learning, compared to “large-scale food” production, and informal learning, compared to “backyard and community gardening”, are viewed as superficially similar products, but in fact differ in terms of (idem, 47): “processes, context, content, and purposes associated with production”. They conclude that all learning situations are more or less characterised by both formal and informal aspects, and that the aim should be to integrate or hybridize them (idem, 47), and to see them as interrelated. For example, McGivney (1999 quoted in Van Marsenille 2015, 25) claims that there is much more continuity between formal and informal learning than we might think. Indeed, informal learning may well take place in the classroom when “learners work in groups and share views and experiences” (ibid.). On the other hand, “formal learning occurs in an informal learning situation when the learning is more structured, when the learner is active, structures their own learning and understands how the language is used, its rules and applications” (ibid.).

Other researchers have drawn similar conclusions from learning traditions, which are rooted in ethnographic studies aimed at exploring how communities around the world conceptualise learning. In particular, Rogoff et al. (2016) report some of these traditions, highlighting that:

(...) how learning is organised and supported is more important than where learning occurs. After all, schools themselves can be organized in informal ways (...), and many settings outside of schools employ the factory model of instruction that is often found in schools, such as when parents didactically control children’s learning (idem, 370).

With the negative label of “factory model”, Rogoff et al. (idem, 370) refer to “a more didactic way of organizing instruction that is common in schools” also called “Assembly-Line Instruction (ALI)”, which they put in sharp contrast with “Learning by Observing and Pitching In (LOPI)”, typical of heritage communities living in the Americas. Within these two paradigms, Scribner and Cole (1973 quoted in ibid.) demarcate that “school learning relies almost exclusively on language, especially language used out of the context of practical activities and concrete referents, whereas informal learning heavily employs demonstration without stating rules or principles”. According to the authors (ibid.), informal activities in the communities are not only meant to

¹ Golding, Brown, and Foley (2009) focus on the power relations that characterise both informal and formal learning. Their underpinning agenda is to address the need of Australian educational policies to acknowledge the value of informal learning within the context of Adult and Community Education (ACE).

cognitively educate the child, but also to engage him/her emotionally. What appears to be decisive in differentiating Assembly-Line Instruction (formal) from Learning by Observing and Pitching (informal) traditions is ‘experience’. According to Greenfield and Lave (1982 quoted in *ibid.*), informal education is “embedded in observation and imitation of everyday life activities, with relatives demonstrating activities without (or with rare) explicit curriculum or pedagogy”. On the other hand, formal education takes place “in institutional settings that are removed from everyday life, with specialized personnel presenting principles using a highly systematized and verbal curriculum and pedagogy that focuses on training as an end in itself”. Despite the differences between the two traditions, Rogoff et al. (2016) recognize that they are not mutually exclusive and they call on schools and policy makers to combine them with the aim of creating more holistic educational environments.

Many researchers have agreed that contrasting informal with formal learning in a strict manner is simplistic, and fails to recognise the complexity of both (Hofstein and Rosenfeld 1996; Rogoff et al. 2016). Moving away from the ‘location’ only factor, Ellenbogen (2002 2011 quoted in Bellini 2018, 10) claims that it is social participation that plays a key role in distinguishing between the two kinds of learning. Umphress et al. (2006 quoted in Bellini 2018, 10) suggest that formal and informal learning are different inasmuch as students worry about “whether there are consequences for their failure or success to learn”. Within this perspective, Bellini (2018) report on Callanan, Cervantes, and Loomis’ (2011 quoted in *ibid.*) conceptualisation of informal learning, as comprising the following five dimensions:

- 1) The extent to which learning is the result of didactic teaching.
- 2) The extent to which learning is socially collaborative.
- 3) Its embeddedness in meaningful activities.
- 4) Whether it is initiated by the learner’s interest or choice.
- 5) The relative presence or absence of external assessment with important consequences.

These dimensions show how the ‘location’ where learning takes place is not sufficient to strictly define it as formal or informal. However, Eshach (2007), one of the main researchers in the field of science learning, goes as far as to say that not even the ‘structure’ can alone account for the distinction between formal and informal learning. Indeed, he proposes to distinguish between three kinds of learning – formal, non-formal, and informal - on the basis of other factors, such as motivation, social context, assessment, and interest (see Figure 3).

Figure 3: Differences between Formal, Non-Formal and Informal Learning (Eshach 2007, 174)

Formal	Non-formal	Informal
Usually at school	At institution out of school	Everywhere
May be repressive	Usually supportive	Supportive
Structured	Structured	Unstructured
Usually prearranged	Usually prearranged	Spontaneous
Motivation is typically more extrinsic	Motivation may be extrinsic but it is typically more intrinsic	Motivation is mainly intrinsic
Compulsory	Usually voluntary	Voluntary
Teacher-led	May be guide or teacher-led	Usually learner-led
Learning is evaluated	Learning is usually not evaluated	Learning is not evaluated
Sequential	Typically non-sequential	Non-sequential

Moreover, Eshach (2007) highlights that the distinction between informal and non-formal learning is necessary to account for all the characteristics of out-of-school learning. In particular, he suggests that “the frequency to which we attend a place where the learning occurs” (idem, 174) is fundamental to explain this dichotomy. What the author suggests is that informal learning is more likely to occur in places we visit in our day to day life (i.e. homes, streets, schools), whereas non-formal learning, which is usually prearranged and structured, is more likely to occur in places we seldomly visit (i.e. museums, zoos, planetariums, and aquariums) (see Figure 4).

Figure 4: Informal and non-formal learning model (Eshach 2007, 174)

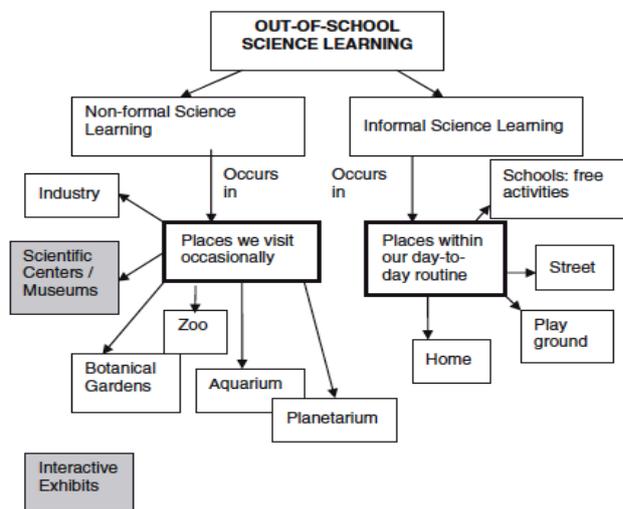


Fig. 1. Informal and Non-Formal learning.

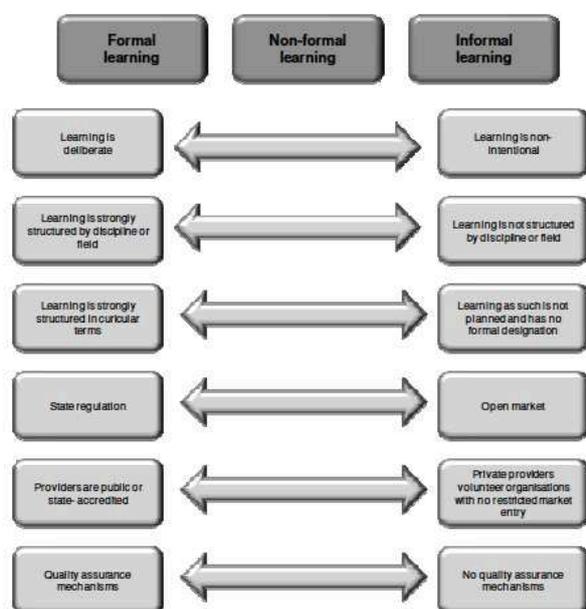
In explaining Figure 4, Eshach (ibid.) claims that museums should be considered as non-formal science learning settings especially when people participate in structured activities within the framework of a school fieldtrip. However, other researchers in the field of museum education

have categorised museums either as sites of informal (see Mathewson-Mitchell 2007; Callanan, Cervantes, and Loomis 2011 quoted in Bellini 2018, 12), or formal learning, adding to the ambiguity so far described.

The aim of this paragraph was that of giving a brief overview of the debate surrounding the conceptualisation of different types of learning, and their related terms and definitions. The hybrid nature of out-of-school learning has led to lack of uniformity in its definition, as scholars have interpreted and categorised it in different ways. In focusing on informal learning, Bellini (2018) affirms that this type of learning is also defined by other labels, such as ‘self-instructed’ (Van Marsenille 2015 quoted in *idem*, 13), ‘intentional’ (*ibid.*), ‘incidental’ (Doyle 2001 quoted in *ibid.*), and, interestingly, ‘experiential’ (Kolb 1984). In addition, we need to remember that alternative terms and contradictions exist also as regards the distinction between non-formal and informal learning. Rogoff et al. (2016), for example, view extracurricular and after-school programmes as examples of informal learning, while other authors would likely refer to them as non-formal activities.

Within this landscape, the definitions offered by the European Commission (2012) (see beginning of the current paragraph) are pragmatic, as they are meant “to enable policy makers, researchers and practitioners to speak the same language in their international activities” (Werquin 2010, 24). However, as Werquin (*ibid.*) highlights, it is not very helpful to consider the three learning concepts as “rigidly circumscribed”. Indeed, the author (*ibid.*) claims that: “Non-formal learning is situated somewhere between formal and informal learning and there may be advantages in establishing degrees of formality rather than fixed definitions”. He thus proposes the following framework (see Figure 5):

Figure 5: *The continuum of learning from formal to informal learning (Werquin 2010, 24)*



In the above framework, the distinction between the different types of learning is successful in the extent to which users can analytically take into account the national and local variations. In fact, the definitions of the European Commissions (2001, 2012) and Cedefop (2008), while positively clarifying terms so as to simplify communication at international level (see OECD, 2007; Cedefop and European Commission, 2008; Tissot, 2009 quoted in *ibid.*), also simplify the complexities of the concepts involved.

2.2. The informal/non-formal/formal debate in applied linguistics

The same debate has long interested the field of applied linguistics. Reinders and Benson (2017) highlight that “the development of a coherent descriptive model that can help us to separate out the different forms and dimensions of language learning beyond the classroom” (*idem*, 562) is a “long-term task” (*idem*, 563). In fact, whereas classroom research has mainly focused on “conventional classrooms in educational institutions”, the aim of research on language learning beyond the classroom is much more wide, and more difficult to delimit (Benson 2011, 9). The same terminological confusion, as highlighted in the previous paragraph, can be found in this field, with language learning beyond the classroom being identified by a ‘jungle’ of names (Benson 2011, 9), including: ‘out-of-class’, ‘out-of-school’, ‘after-school’, ‘extracurricular’, and ‘extramural’; ‘non-formal’ and ‘informal’; ‘self-instructed’, ‘non-instructed’ and ‘naturalistic’; ‘independent’, ‘self-directed’ and ‘autonomous’.

Among these, ‘extramural’ (from *extra*, “outside”, + *mural*, “walls”) has certainly gained the widest recognition in the literature. In particular, it was Sundqvist (2011) who first referred to “extramural English” (EE) as an umbrella term able to include the encounters that, more or less voluntarily, students have with English outside of the classroom. As she claims, extramural English does not imply any “degree of deliberate intention to acquire English (...) on the part of the learners, even though deliberate intention is by no means excluded from the concept”. Students might engage with English not because they consciously want to but because they feel pressured by their peers or parents (*idem*, 107).

The problem with the terms cited above is that they are not as inclusive as language learning beyond the classroom (Benson 2011, 9), as they each refer to a number of different dimensions. In particular, Benson (*idem*) identifies four different dimensions – Location, Formality, Pedagogy, and Locus of control – which he uses to describe, analyse, and discuss language learning beyond the classroom. He claims that:

“defining language learning beyond the classroom as a field of inquiry (...) is to say that it is centrally concerned with location for language learning other than the classroom and with relationships between these locations and aspects of formality, pedagogy and locus of control” (*idem*, 12).

Within this context, ‘out-of-class’, ‘after-school’, ‘extracurricular’, and ‘extramural’ refer mostly to Location, that is the setting where language learning and teaching take place. However, Location is not enough to account for the complexity of that *beyond*, and this is where the other dimensions come into play. According to Reinders and Benson (2017, 562), “after identifying the location (...) we may then determine whether the learning is informal or formal, non-instructed or instructed, self-directed or other-directed”, always “bearing in mind that each distinction has its own complexities and should be treated as a matter of degree”. The second dimension is indeed Formality, which is defined as “the degree to which learning is independent of organised courses leading to formal qualifications” (Benson 2011, 10). Moving to the third dimension, Pedagogy, Benson (2011, 11) talks about a continuum from ‘instructed’ to ‘naturalistic’. In particular, the author suggest that while ‘instructed’ refers to a situation in which there are frontal and deductive explanations, and materials and testing are offered in accordance to a curriculum, ‘naturalistic’ is more used when “the learner sets a (...) learning situation with the intention of language learning, but once engaged in the situation, switches the focus of attention to communication, enjoyment or learning something other than the language itself” (*ibid.*). The last dimension identified by

Benson (2011) is Locus of control, which refers to the person (agent) that mostly makes the decisions about learning and teaching (idem, 12). Therefore, the last cohort of terms - ‘independent’, ‘self-directed’ and ‘autonomous’ – refers to a situation in which it is the student that decides about his/her own learning and uses strategies to guide this process independently from the presence of a tutor.

However, in describing and discussing language learning beyond the classroom, Benson (idem, 13) introduces other two concepts, that is Setting and Mode of practice, which are interconnected with the four dimensions mentioned above. He highlights how Setting does not simply imply “location”, but also “a particular set of circumstances within a location that offer affordances for and constraints on possibilities for language learning” (ibid.). In this sense, when describing the setting of a specific learning situation, one has to outline the main physical features of the space, but also the students’ relationship to other people and objects in the setting. Finally, a description of the setting should also consider the pedagogical implications, in relation to the dimensions of formality, pedagogy, and locus of control. The other concept, Mode of practice, is defined as “a set of routine pedagogical processes that deploy features of a particular setting and may be characteristic of it” (idem, 14). According to the author, it is important to highlight the distinction between Setting and Mode of practice, because we tend to connect each setting with one specific mode of practice, without considering that their features and affordances can be used in a dynamic way (ibid.). As the author highlights:

(...) a classroom, for example, may support both teacher-fronted formal instruction, or less formal, student-directed task-based activities, just as a self-access centre might support individual self-directed use of self-instructional materials or group activities led by a teacher (ibid.).

2.3. Research on language learning beyond the classroom

In the next two paragraphs, we will outline some of the empirical research on the effects of language learning beyond the classroom. We use here Benson’s (ibid.) label in a pragmatic way, as our aim is that of giving a snapshot of the settings, other than the classroom, where language learning can take place. However, for a more easy-to-follow classification, we will use the European Commission’s (2012) distinction between informal learning and non-formal learning. It needs to be stressed that these definitions are only used here out of convenience, and that it is

important to bear in mind the different dimensions that any type of learning entails as highlighted by Benson (2011; see paragraph 2.2.).

2.3.1. Research on informal language learning

The focus of this paragraph is on the impact that engagement in informal learning activities/projects has on students' language learning and affective factors. Through integrating the European Commission's (2012) definitions with those of Eshach's (2007), we here identify informal learning activities/projects as having the following characteristics:

- 1) they take place in daily activities related to work, family or leisure.
- 2) They are not structured in terms of learning objectives, time, and contents.
- 3) They are mostly unintentional from the learner's perspective.
- 4) They are not awarded grades/qualifications.
- 5) They involve a strong intrinsic motivational component.

Several studies have shown that students' engagement in informal English language activities (i.e. watching television and films, listening to music, writing fan fiction, and digital gaming) has a positive impact on students' language development and affective gains.

Through presenting twenty-eight case studies of language learning beyond the classroom, Nunan and Richards (2015) come to the conclusion that the benefits of informal learning can be summarised with three key-words: authenticity, meaningful, and autonomy. Indeed, in informal contexts, learners have the opportunity to both engage with authentic input – listening and reading to texts that come up in regular communication -, and produce authentic output –producing personally meaningful utterances instead of the “prefabricate formulaic” ones often produced in the classroom (Nunan 2014, 7). In terms of interaction, Nunan notices that this is mostly unpredictable and uncertain in informal contexts. In particular, Nunan (2014) highlights that while classroom discourse consists of “simple rituals and routines as well as display language”, and thus is structured and hierarchical, discourse beyond the classroom consists of “complex rituals and routines resulting from authentic (rather than display) language”, and thus is mostly “unstructured” (idem, 2).

In the Swedish² context, Sundqvist (2009) explored both the time spent on extramural encounters with English and their impact on the oral proficiency and vocabulary skills of 80 students (age 15-16; 36 boys and 44 girls) during one school year (2006-7). In particular, students reported to spend an average of 18.4 hours per week on extramural English activities, with “listening to music” being the most popular, followed by “playing video games”, “watching TV”, “watching films”, “surfing the internet”, “other activities”, “reading books”, and “reading newspapers/magazines” (see Sundqvist 2009 reported on in Sundqvist 2011, 110). Sundqvist (2009) found that the total amount of time spent on informal English activities was positively and significantly correlated with both students’ oral proficiency and size of vocabulary. In particular, the activities that require a greater degree of interaction, such as digital gaming, were found to have more of an impact on students’ oral proficiency and vocabulary than receptive activities. Interestingly, while boys in the study seemed to engage more in activities closely connected with oral proficiency and vocabulary, girls opted for more passive/receptive activities, revealing a gender effect which also resulted in boys’ higher oral and vocabulary test scores than girls’. As regards the affective dimension, Sundqvist’s (2009 reported on in Sundqvist 2011, 113) study revealed a significant positive correlation between students’ engagement in extramural English activities and their self-efficacy and anxiety, with the same differences across the two genders as mentioned above. Interestingly, Sundqvist (2009) also finds that there is a negative correlation between speaking and anxiety with frequent gamers feeling less anxious about speaking the more they played.

Other studies have shown the benefits of L2 gameplay on students’ vocabulary (Sundqvist and Wikström 2015; Turgut and Irgin 2012; Jensen 2017), affective gains, and willingness to communicate (Peterson 2012; Reinders and Wattana 2012). For example, Turgut and Irgin (2009) investigated how 10 primary and secondary students in Turkey engage with online games through English and the impact of playing video games on their English vocabulary and pronunciation skills. Their findings suggest that playing video games, such as Knight Online World version, Counter-Strike, Grand Theft Auto: Vice City, Warcraft III: Reign of Chaos, and FIFA 08, where gamers have to collaborate and interact with the other participants to win the game, have a strong impact on both their incidental vocabulary learning and motivation. Indeed, during the

² In paragraph 2.2., we mentioned that it was Sundqvist (2009, 2011) that first used the label Extramural English (EE) and most of the authors from the same geographical region have adopted it when dealing with informal learning. It also needs to be pointed out that most of the literature on informal learning comes from Sweden as a result of recent changes in the national curriculum for English language teaching (see Olsson 2011; Sundqvist 2009, 2011; The State Council 2010; The Swedish National Agency of Education 2004), aimed at better addressing students’ needs and interests.

observation and subsequent interviews, participants claimed that, through playing, they were exposed to the same vocabulary multiple times, increasing the opportunity for its acquisition. Moreover, they also reported to enjoy looking up new words when they felt they were necessary to advance to the next levels in the game (idem, 763). Indeed, Gee (2003, 2008 cited in Kuure 2011, 37) argues that games provide young people with plenty of opportunities to practise “in a simple form the same complex routines that in a school context they might consider tedious and unmotivating”, and that they “advance learning because they require and produce shared cognition, collaboration, cross-functional teams and shared expertise”. In this regard, Turgut and Irgin (2009, 763) also point out that the continuous interaction with both the virtual characters and the other gamers was highly valued by the participants in the study as it offered them immediate feedbacks on their comprehension and oral production, and motivated them to improve their English language skills. However, participants also referred to the importance of using English to make friends with their fellow gamers.

Other research has concentrated on the link between time spent watching TV/films in the FL/L2 and its impact on young people’s language development (Caimi 2006; Rodgers and Webb 2011, 2017; Webb and Rodgers 2009). For instance, Caimi (2006) claims that films, which simultaneously present context, sound, image, and a narrative structure, positively affect FL learners’ receptive and productive oral skills, while at the same time increasing their intercultural competence. On the other hand, Rodgers and Webb (2011) carried out a corpus based analysis of the scripts of 288 tv episodes reaching the conclusion that watching tv shows can potentially have a positive impact on incidental vocabulary learning. However, researchers have highlighted how there are differences on how English learners engage with this particular extramural activity depending on the broadcasting habits of their countries. In fact, while in Scandinavia and Eastern Europe, the Netherlands, and Portugal, films and tv shows are broadcast in their original language with subtitles, in other countries such as Spain, Germany, France, and, particularly important here, Italy, both audio-visual categories are dubbed in the local language (Zanetti 2016, 21). Studies suggest that this is one of the reasons why teenagers in the first cohort of countries show better listening and vocabulary skills in English than do those in the second cohort (Ruperez-Micola et al. 2009 quoted in *ibid.*). Despite the advent of the Internet, which has opened the possibility for youngsters “to watch original material thanks to YouTube and file sharing platforms” (Zanetti 2016, 21), the situation has mostly remained the same. In his Master Dissertation, Zanetti (2016) claims that of the 350 Italian upper secondary school students, aged 14-20 years old, participating in his study, the great majority reported not to watch films and tv series in English frequently. He

suggests that the reason behind the apparent lack of interest towards this category could be that watching films is cognitively demanding, time consuming and thus requires a great deal of effort and commitment, especially in the case of learners that have a low level of English (Olmedo 2015).

An important point to make here is that young people engage with an extremely rich variety of multimodal texts every day (see Lam 2000; Thorne, Black, and Sykes 2009), thus acting as prosumers -both producers and consumers – of the new media landscape (Sundqvist and Olin-Scheller 2013, 332). For example, writing fan texts (Black 2008) and fiction (Sauro 2017) has proven to be a powerful activity in boosting young people's language and literacy development. Indeed, through collaboratively producing fan texts, learners have the opportunity to exchange ideas, receive feedback on their compositional skills, and co-construct knowledge with their peers in an authentic and stimulating environment (Black 2008 reported in Sundqvist and Olin-Scheller 2013, 333). Another Swedish study (Olsson 2011) explored the impact of extramural English on students' written production (i.e. letters and news articles), and revealed that the highest scores in the writing tasks and final grades belonged to those students who had reported to engage with extramural English more often.

Despite the abovementioned encouraging results, several studies have demonstrated how students tend to carry out more frequently receptive rather than productive activities in out-of-school contexts (see Hyland 2010). For example, Pickard (1996 cited in Hyland 2010, 182) conducted a study on the types of informal activities that a group of German students carried out to improve their English, and found that “students tended to choose activities involving the receptive skills such as reading and listening, rather than the productive skills, but were also influenced by whether the activity was intrinsically interesting to them”. In the Honk Kong context, both Yap (1998 cited in *ibid.*) and Hyland have demonstrated the difficulty of students to engage in productive (both writing and speaking) activities outside of the school context. While Yap's (*ibid.*) study focused on secondary school students, Hyland's (2010) looked at prospective English teachers, who she thought would be very motivated to exploit any opportunity to improve their skills both in their formal and informal learning context. However, what the author found was that the majority of the university students majoring in the English language, avoided speaking in English outside their work or study environment due to specific socio-political factors (i.e. fear of being judged by their Cantonese friends). What Hyland (*ibid.*) suggests is that the contextual factors in which language use is taking place need to be addressed if one wants to be able to explain the reasons behind the amount of time students devote to informal FL activities and the

types of activities they prefer. In the case of Hyland's (2010) research, there was a discrepancy between the use students made of English in their public and private domain, revealing a preference for using Chinese in the public context, where showing solidarity to their own group was necessary. However, personal networks can also work as catalysts for language learning. Palfreyman (2011), for example, demonstrates how in the United Arab Emirates (UAE) family is a social resource for FL learning as it provides "information, support, feedback and models of learning or performance" (idem, 19). The author refers to the Social Network Theory when saying that people live within networks of relationships, which support the transfer of resources, such as information or gifts, and facilitates people's activities (ibid.). Through conducting paired interviews with five female Arabic learners (aged 18-25), studying at the English medium Zayed University (ZU), and one member of their social network, Palfreyman revealed that these learners used their siblings, parents, neighbours, and friends both as conversation partners, and to get the resources they needed to improve their English language skills.

Within the same idea of learners as social agents, Kalaja et al. (2011) conducted a longitudinal study in Finland and looked at first year university students' beliefs about what they had learned of English or Swedish both in and outside of the school context. As regards the school context, both students of English and Swedish reported to have mostly learned the 'basics', that is grammar and vocabulary (ibid.). On the contrary, out-of-school activities "were seen as the means to actually get to use the languages in all modalities", as most of the students confirmed to use different types of media as important material and semiotic resources for learning (ibid.). Furthermore, students regarded speaking as simply another skill to practice inside the classroom and as "actual language use" in informal contexts (idem, 56). However, in conceptualising learning, students shared the idea that learning is a "gradual, accumulative process, which starts from the basics and proceeds in a sequential manner to the study of particular aspects or (sub)skills one at a time" (idem, 58), and did not think of it as something to build through interacting with other people and engaging in tasks. Another element that emerged from students' interviews was that students of Swedish and English reported to engage differently in out-of-school learning activities as a result of the social discourses surrounding the two languages. While English students sought out learning opportunities in varied ways and out-of-school contexts, Swedish learners failed to do so. Indeed, students' learning in out-of-school contexts depends on their "perception of and willingness to exercise their power to act, or agency"³ (idem, 55). Kalaja et al.

³ Kalaja et al.'s (2011) article embraces Lantolf (2000 cited in ibid.) theory, and sees L2 learning as "a mediated activity taking place in a specific setting: it is a process that occurs with the help of socially and culturally mediated means -either other people or a number of semiotic and material tools" (Kalaja et al.'s 2011, 48).

(2011) well highlight this dimension of language learning beyond the classroom, by defining L2 learners as “social agents” who collaborate with other individuals and exploit the tools and resources available to them to achieve their communicative goals. In this sense, every context – be it the family, an online/face-to-face tandem project, an after school programme, surfing the net etc. - potentially offers affordances to advance one own’s language knowledge and skills.

In the Veneto region (north-east of Italy), Menegale (2013) points out how of the 473 Italian students, aged between 11 to 18, who answered her questionnaire, more than half reported to never or hardly never engage with English outside of the school context. However, when they did engage with English outside of school, students claimed to engage in receptive activities more than in productive ones, even though some of them affirmed to also engage in writing activities. While Menegale (2011, 2013) research mainly focused on the relationship between students’ use of English outside of school and their level of autonomy, she also explored students’ perceptions in relation to FL (i.e. English) use in informal contexts and its implications for teachers. The students in her study perceived the English learnt beyond the classroom as different from that learnt in the school setting, as “the language they run into in informal contexts cannot be found in schoolbooks”, and it is much “closer to their everyday life, interests, and needs” (Menegale 2011 reported in Menegale 2013, 12). Furthermore, English beyond the classroom was regarded by these students as less challenging as it did not seem to require high level of accuracy nor it had to undergo teachers’ evaluation (ibid.).

The same reluctance in engaging with English language learning in the school context has been recorded in other European countries (Henry 2013; Henry and Cliffordson 2017; Ushioda 2013), but for different reasons. In Sweden, English is omnipresent and represents young people’s preferred medium of communication in many out-of-school settings. According to Henry and Cliffordson (2017, 717):

While interactions in English-mediated digital environment (...) can be engaging, creative, and personally meaningful, experiences in school can be altogether different. Even in countries with progressive educational systems (...) English lessons tend to be text-book-centred and offer little scope for personal expression (...)

Henry (2013) refers to this situation as an “authenticity gap” between the highly valued cognitive, emotional, and aesthetic experiences related to the use of English outside the classroom, and the often mundane learning experiences students have with English inside the classroom. Also, activities carried out in out-of-school contexts tend to be perceived as more in tune with students’

identity and thus contribute to an increased perception of authenticity (Henry and Cliffordson 2017, 718). Against this backdrop, the authors (idem) argue that students' ideal and current selves (see the L2 Motivational Self System Model in Dörnyei 2005) play an important role in defining both their motivation to engage with English in and outside of school, and their self-perception of instructed contexts.

Another recent study (Bellini 2018) carried out in the Veneto region investigated third year middle school students' (n=45; 13-14 years old) level and type of engagement with English and German informal language activities through administering a two part questionnaire. He found that students tended to engage more with English than with German outside of school. In fact, while the most frequent activities in both languages related to technology (i.e. videogames, social networks, listening to songs, and watching Youtube videos), findings revealed that English was nonetheless the preferred language for all of these activities. Bellini (idem) suggests that the reason behind these results is students' perception of English as a more useful tool in real life (see Crystal 2003 on English as a global language) in comparison to German. Furthermore, his findings revealed that students engaged more in receptive rather than in productive activities. However, a good percentage of the students also reported to speak to tourists more than once a week. This is not surprising given that the Veneto region witnesses an intense flow of tourists all year around, especially in those areas that are close to Venice. Indeed, both Menegale (2013) and Bellini (2018) are particularly relevant for our research as their participants come from the same geographical area and are likely to have the same background and exposure to English as our participants (see Paragraph 8.5.).

2.3.2. Research on non-formal language learning

The focus of this paragraph is on the impact that engagement in non-formal learning activities/projects has on students' language learning and affective factors. Through integrating the European Commission's (2012) definitions with those of Eshach's (2007), we here identify non-formal learning activities/projects as having the following characteristics:

- 1) they take place in settings beyond the classroom, such as summer camps, youth groups, clubs, churches, museums, theatres, online platforms, parks, etc.
- 2) They are structured in terms of learning objectives, time, and contents.
- 3) They involve some sort of learning support.
- 4) They involve intentional learning from the learner's perspective.

- 5) They are usually experience based, and focus on *meaning* rather than on *form*.
- 6) They are not usually awarded grades/qualifications, unless they are part of a formal module both inside and outside the classroom.
- 7) They are generally non-sequential, and/or have a short duration.
- 8) They usually involve a strong intrinsic motivational component.

Among the non-formal learning settings cited above, summer camps have gained wide recognition as offering alternative and useful opportunities for language development. Although they differ substantially in terms of format, location, underpinning language teaching methodologies, teaching staff, and students' characteristics, summer camps can provide students with both formal activities (classroom based), and non-formal activities (i.e. sport, theatre, arts and crafts, sightseeing trips). While a number of studies has focused on the impact that summer camps have on offsetting immigrant children's learning losses over the summer (Cooper et al. 1996; Stanat et al., 2012), others have focused on students' foreign language development and motivation. For example, Wighting et al. (2005) conducted a descriptive study on the effect of a 3 week English language summer camp on 149 Chinese students (8-18 years old). The summer camp was hold in China in a hotel accommodation, which hosted both the participants and the formal activities, and was taught by American teachers in collaboration with Chinese teachers. The camp did not only consist of formal classes, but also of recreational activities (i.e. sports, sightseeing trips, drama) with the end goal of promoting spoken English both inside and outside the more "traditional" classroom. Through conducting both students and teachers' surveys and interviews, the findings revealed that participating in the camp had a positive impact on students' language proficiency and motivation. In terms of motivation, the following aspects were particularly valued by the students: (i) the opportunity to interact with native speakers, (ii) the novelty of a relaxed, casual, and enjoyable setting, and (iii) the use of games, singing, drama, sports and field trips. Students reported strong positive feelings towards the more interactive pedagogical framework of the summer camp, in sharp contrast with that of their traditional language classrooms, which only focused on the mastery of grammar. Therefore, the authors concluded that it was the "synergistic interaction of three elements: the camp context, the interactive nature of the teaching and learning activities, and the opportunity to use spoken English for authentic purposes" (idem, 98) that accounted for the positive learning experience. Interestingly, what students perceived to be most beneficial was the fact that they had the chance to build strong relationships with the other students, and the teachers.

Another interesting context of non-formal language learning is “tandem learning⁴”, in which learners of different languages and levels are paired with tandem partners. As Sasaki (2015, 115) argues, “the unique aspect of this activity is that, unlike regular native speaker— non -native speaker (NS-NNS) communication, where only one participant (i.e., NNS) benefits as a learner, tandem partners bring their own L1 knowledge and reciprocally support their partner’s L2 learning”. In the last few years, there has been an increase in the promotion of online tandems thanks to the availability of learning environments facilitated through computer-mediated communication (CMC). For example, Stickler and Emke (2011) investigated the benefits on adult students of engaging in language learning through a tutor-supported online learning environment. The project, called LITERALIA (Learning in Tandem to Encourage Reciprocal Autonomous Learning in Adults), involved 229 learners from five institutions in four different countries. In particular, learners were offered the opportunity to interact with their tandem partners through both a structured online workspace – forums, ‘wikis’, and live textchat using Moodle - e-mails, and exchange face-to-face meetings. Learners were matched representing six language combinations, and received different types of support, both technical, such as introductory sessions on the use of the online tools and principles of tandem learning, and content-based, such as the provision of structured and moderated forum topics. Through administering questionnaires and interviews, the authors, as participant observers, revealed that the online tandems allowed for different types of learning to occur over time. In particular, there was a passage from a more tutor-led, formal type of learning, to a more learner-led type of learning, both non-formal and informal (idem, 157). Indeed, participants reported learning outcomes, such as development of social, digital, and learning to learn competences, that the organisers had not included among the learning objectives (ibid.). The researchers also found that learners increased their level of autonomy, by becoming more conscious of what and how much they learned incidentally during the project, and using this knowledge to further their own progress. In this sense, the non-formal learning component seemed to help bring “the processes of informal learning” – an incident of which was the joint cooking experience organised by the participants themselves – “into the conscious foreground of the learners” (idem, 158). The authors thus concluded that non-formal learning can be an excellent tool to promote students’ awareness as regards the exploitation of learning affordances in different contexts and at different times.

⁴ See Braga (2007), Little (2003), Ushioda (2000) for a more detailed description of the benefits of online tandems on L2/FL development.

Sasaki (2015) report on another non-formal project in which Japanese students (14-15 years old) were paired with American students (14-17 years old) and used e-mail tandem as a tool for communication. Sasaki argues that using e-mail tandem is beneficial for students as they use language both as a medium of authentic communication and as the topic. Thus, it promotes both metalinguistic awareness and autonomy (see also Little 2003). However, Sasaki also claims that the role of the teacher in pedagogically designed e-mail tandems is pivotal, especially in the case of young learners. For example, through reflecting on the issues encountered during the project, Sasaki (2015) argues that teachers can help ease technical issues, suggest ways to correct partners' mistakes, and decide on partner dyads so as to increase the likeability of an enduring and motivating communication between partners, both as regards their characters and language level. Non-formal projects using Experiential Learning as a tool to improve students' foreign language skills have also been investigated. The Experiential Learning Theory (ELT) developed by Kolb (1984) argues that learning is "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (idem, 41). From this perspective, Kolb designs a learning model in which students go through four phases (Kolb and Kolb 2009, 298-299): experiencing, reflecting, thinking, and acting. In trying to support nine Chinese students learning Italian as an L2 in Venice, Schiattone (2016) designed a short non-formal project, consisting of multiple cooking class experiences followed by lessons about the experience. The Chinese students attended the third year of a Culinary Arts and Hotel Management high school as part of an exchange programme, and took part in both pre- and post-intervention tests and a final questionnaires. Despite the limitations of the study, interesting results were found as regards both students' language development and motivation. Students reported to have developed a better awareness of their learning difficulties, and seemed to both perform better and be more motivated to learn Italian. What is important for our discussion here is that the presence of the tutor, both during the practical cooking lessons and the follow up language classes, was pivotal in supporting students to exploit the language affordances offered by their cooking classes. The follow up lessons served as a tool to systematise and expand the vocabulary that the students had already "experienced" during the practical cooking sessions (see also Kohonen et al. 2014 on how to bridge the gap between learning in and outside of the classroom through Experiential Learning programmes). It is important in the current section to also cite Service Learning as a tool used to bridge the gap between language learning inside and outside the classroom. Service learning is defined as:

“the various pedagogies that link community service with academic study so that each strengthens the other. The basic theory of service learning is Dewey’s: the interaction of knowledge and skills with experience is key to learning” (Ehrlich 1996 quoted in Canuto 2016, 17).

“(…) a model of experiential learning that combines classroom learning with volunteer work that achieves community goals. Real life experiences in the community are linked to course content through processes of critical reflection” (Eyler and Gilles 1999 quoted in idem, 165).

In Service Learning, the teacher is both the educator and the director of students’ learning through creating a strong and empathic collaboration with the community, sharing both duties and success (Canuto 2016, 22). Within this context, Canuto (idem) studied the effect of using Service Learning to promote Canadian university students’ motivation towards learning Italian as a FL. She divided the students in two groups, one attending the Service Learning experience (i.e. museum, teaching, working with the elderly, collecting family stories), and the other one only attending the lessons in class. The author collected both quantitative and qualitative data and found that, at the end of the academic semester, the students participating in the Service Learning experience were more motivated towards the Italian language and culture than the control group. The qualitative findings revealed that Service Learning can help increase students’ willingness to communicate, interest towards the language, and awareness of language gaps. Furthermore, students reported that through actively working with the community, they also had the opportunity to know themselves better, both as people and as language learners. However, Canuto (idem, 137) underlines that using Service Learning as part of an academic language course requires a very well structured plan and a considerably well-thought coordination. The author also argues that the help of an assistant, supporting students both in class and during the Service Learning experience, might have helped with the smooth running of the project. In fact, the project went through several years of testing, which helped the author and her colleagues to better understand the entity and type of resources needed to successfully guide students during the implementation of their service experiences.

2.3.3. Towards CLIL *beyond* the classroom

Content and Language Integrated Learning (CLIL) has attracted a great deal of attention in terms of its effects on both students’ learning and affective factors (see Paragraph 4.4.). While most of the research has focused on the application of CLIL within the classroom walls, Silvén and

Sundqvist (2015, 59) highlight that “simultaneous learning of content and language may very well take place also outside school”. In fact, according to Lancaster (2018, 95), extramural English can, to some extent, be perceived as out-of-class CLIL, especially if we take into consideration Massive Multiplayer Online Role Playing Games (MMORPG), such as World of Warcraft, in which learners use the L2/FL in the context of historical and literary fictional environments. In this case, learners, driven by their passion in winning the game (see Paragraph 2.3.1.), either consciously or unconsciously, increase their knowledge and skills both as regards the language and the contents.

The abovementioned relation between extramural English and CLIL closely refer to informal learning. In this paragraph we take a slightly different perspective reporting on two studies that have investigated CLIL as applied to non-formal learning projects.

The first study is an action research which investigated the impact of a technology assisted urban game on students’ perceived learning gains (Pitura and Terlecka-Pacut 2018). An urban game is defined as:

“a type of an outdoor thematic game that is inspired by historical events, literature, films, computer games or fictional stories, in which public space is used as a game board. Notably, even though these games are mostly organised in towns, they can be, in fact, organised at any location. These games have a defined goal, scenario and rules; teams or individual players compete by completing tasks, e.g. finding a place or an object, getting to a specific point. Those who do the tasks the fastest or score the most points win the game” (idem, 4).

In this particular study, the authors devised an urban game aimed at exploring the historical and cultural aspects of the city of Cracow in Poland. Twenty-two upper secondary school students took part in the game, which was divided into the two following stages:

- 1) First part: teams of participants tour the city completing tasks at eight different stations. In each one, they interview tourists and inhabitants of Cracow so as to collect the material for the second part of the game.
- 2) Second part: students create multimodal online presentations in English once they are back in their school in Warsaw. (idem, 10)

The game was designed and carried out through the collaboration of five school teachers, fifteen university students (pre-service English language teachers), and three Erasmus students. The

results of the students' questionnaires revealed that participating in the urban game constituted an invaluable and meaningful experience for the students. In particular, even though the game was perceived as challenging, the learners felt satisfied about having the opportunity to compete with their peers, prove their efficacy, and successfully accomplishing the tasks during the game. The authors also found that students' interest in the game was connected with the novelty of the experience (i.e. being in a new town, using a map, using English for authentic communication; *idem*, 20). Furthermore, the aspect that students valued the most was the social dimension of the experience, which pushed them to finish the game, despite the bad weather conditions. Students' strong positive attitudes towards the game was also confirmed by the fact that "although they were not formally obliged to participate in the game and their ensuing presentations were to be prepared in their free time, they chose to engage in the activity" (*idem*, 21). As regards students' perceived learning gains, they reported to have increased both their English knowledge and skills, and their historical knowledge, teamwork and digital skills. Despite the positive abovementioned results, the authors (*ibid.*) highlight that designing and implementing an urban game is an incredibly demanding and long-term endeavor, which requires the collaboration of many actors and entails logistical organization, training, and time.

The second study (Rodenhauser and Preisfeld 2015) is set in Germany and is a quasi-experimental investigation of the effects of combining CLIL principles with practical experimentation in an out-of-school lab during a course on molecular biology. Three groups of secondary school students took part in the study: one bilingual group (n= 198), who participated in the pre-lab activities and lab experience in English as a FL, one monolingual group (n=224), who participated in the pre-lab activities and lab experience in German as an L1, and one control group (n=68), who took the same course as the other two groups minus the lab experience. Secondary teachers were provided with materials on elementary laboratory methods and background knowledge on genetics and molecular biology to prepare students before the lab experience. The lab experience consisted of providing students with a virtual criminal case, which they had to solve through conducting saliva tests, and gathering other information with the end goal of convicting the suspect (*idem*, 102). While the contents of the course were the same for both bilingual and monolingual groups, the former received additional linguistic support measures to cope with learning the contents through a FL. Through administering cognitive tests, results showed that using English both in class and during the lab experience did not negatively affect students' cognitive achievements. However, the most interesting finding regarded students' affective responses. In fact, those students in the bilingual group who were more FL oriented

seemed to have increase their biological self-concept, that is they felt they were more capable to do science thanks to the practical lab experience. The authors explain this latter result by suggesting that “students having a high verbal and a low biological self-concept, experience that they are better at understanding the experimental manual and background information and therefore better in conducting the experiments than their schoolmates” (idem, 107).

2.4. Bridging the gap between in and out-of-school language learning: teachers’ beliefs, practice, and training

If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly (Ausubel 1968 quoted in Menegale 2013, 9).

Three main implications can be drawn from Ausubel’s statement. First, we learn by actively building on already existing knowledge through the help of others and not by means of accumulation or transfer. Second, our pre- ‘existing knowledge’ is activated in different settings, through different activities, and at different points in time. Third, teachers need to be aware of what and how their students learn outside of the classroom so as to help them integrate, expand, and systematise their out-of-class knowledges and skills with activities inside the classroom.

In this scenario, the classroom ceases to be the main setting for learning (Reinders and Benson 2017, 571), and becomes the place where students - through teachers and peers’ support⁵ - draw together the knowledge and skills they have acquired elsewhere.

Nunan (2014) argues that “classrooms exist to provide learners with learning opportunities that they cannot get outside the classroom”. From this perspective, the role of teachers in choosing the activities to promote students’ knowledge and skills transfer is fundamental. According to Perkins and Salomon (1988, 22), knowledge transfer is the process by which the “knowledge or skill associated with one context reaches out to enhance another”. In this sense, the authors claim that the whole point of education, its goals and aspirations, is embedded in this very concept, as both the knowledge and skills acquired in school ought to inform students’ performance in life beyond the classroom walls (idem, 23). However, despite its importance, Perkins and Salomon (idem, 24) pinpoint that knowledge transfer is difficult to achieve, especially when knowledge (skills

⁵ In accordance with the Vygotskyan theory of zone of proximal development (see Vygotsky 1978; Lantolf and Gabriela 1994; Masuda and Arnett 2015, 11-12).

included) is too ‘local’ - that is too specialised to allow for any generalisation or cross-cutting transfer. Thus, in their model, they claim that transfer is only possible under two conditions: low road transfer and high road transfer (ibid.). While the former refers to “the automatic trigger of well-practiced routines in circumstances where there is considerable perceptual similarity to the original learning context”, the latter “depends on deliberate mindful abstraction of skill or knowledge from one context for application in another” (idem, 25; also reported on in Menegale 2013, 9). Taking these two conditions into consideration, Perkins and Salomon advise teachers to use both “hugging” - to promote low road transfer - and “bridging” - to promote high road transfer - techniques (see also Fogarty et al. 1992). To understand what these techniques imply for language teachers, we propose here Menegale’s (2013, 9-10) adaptation of James’ (2006) strategies:

Figure 6: *Strategies aimed at favouring transfer of knowledge in language teaching domain (Menegale 2013 adapted from Fogarty et al. 1992)*

Hugging techniques	Bridging techniques
<p>1. Setting expectations: Simply alert learners to occasions where they can apply what they are learning directly, without transformation or adjustment.</p> <p><i>Example: "Remember, you'll be asked to use these pronouns correctly in the essay due at the end of the week."</i></p>	<p>6. Anticipating applications: Ask students to predict possible applications remote from the learning context.</p> <p><i>Example: After students have practiced a thinking skill or other skill, ask, "Where might you use this or adapt it? Let's brainstorm. Be creative". List the ideas and discuss some.</i></p>
<p>2. Matching: Adjust the learning to make it almost the same experience as the ultimate applications.</p> <p><i>Example: Use of audio recordings of academic lectures with the request to students to take notes on the main content in</i></p>	<p>7. Generalizing concepts: Ask students to generalize from their experience so to produce widely applicable principles, rules, and ideas.</p> <p><i>Example: After reading articles taken from newspapers and reviews of different genres,</i></p>

<p><i>anticipation of a quiz that will test their knowledge on the topics proposed.</i></p>	<p><i>ask students to highlight what characterises each text register.</i></p>
<p>3. Simulating: Use simulation so that students can use their ultimate knowledge or will be soon asked to use new knowledge. Activities like role plays highly involve learners and have a positive effect on their attitudes to language learning (Scarcella, Crookall 1990 cited in James 2006:154).</p> <p><i>Example: Simulate a situation where students need to ask for street directions, as preparation for next school trip in the target foreign country</i></p>	<p>8. Using analogies: Engage students in finding and elaborating an analogy between a topic under study and something rather different from it, belonging to other contexts.</p> <p><i>Example: Ask students to reflect in what writing a literature essay and a technical report are comparable.</i></p>
<p>4. Modelling: Predicted outcomes can be showed and demonstrated rather than just described or discussed.</p> <p><i>Example: To make students understand how to write a report of biology experiments, instead of describing the requested linguistic structures, the teacher will show a sample of a written report, while orally explaining its content.</i></p>	<p>9. Parallel problem solving: Engage students in solving problems with parallel structure in two different areas, so that they can gain an appreciation for the similarities and contrasts and use same strategies.</p> <p><i>Example: Make students infer the meaning of same new vocabulary first from a newspaper article, so letting them use and find help from the knowledge of the context, and then from an academic text.</i></p>
<p>5. Problem-based learning: Have students learn content they are supposed to use in solving problems through solving analogous kinds of problems, pulling in the content as</p>	<p>10. Metacognitive reflection: Prompt and support students in planning, monitoring, and evaluating their own thinking.</p>

<p>they need it (following "task-based language teaching", as described in Nunan (1989) and Willis (1996))</p> <p><i>Example: Students work on drafting a letter to be attached to their CV.</i></p>	<p><i>Example: Ask students to reflect on how to prepare for a possible job interview, with the perspective to understand what language requirements would be necessary to face eventual troubles.</i></p>
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Another pedagogical model aimed at facilitating language transfer across-contexts is the one developed by Thorne and Reinhardt (2008) and called “Bridging activities”. In an attempt to maximise their interest and engagement in the classroom, the model proposes to involve students in the analysis of internet/new media literary texts they have personally selected in their out-of-school time. In particular, the model consists of three stages (idem, 566): in the first stage, activities focus on observation and collection, that is students are asked to “develop awareness of their own internet use habits and to collect texts of interest”; in the second stage, activities centre around guided exploration and analysis, that is students are required to notice and analyse the linguistic and social features of the texts; and in the third and final stage, activities focus on creation and participation, that is students “join internet communities and participate in text creation”. The main aspect of this approach is the enhancement of students’ agency, as “the teaching builds on learners’ (rather than teachers’)” language experience, and curiosity (Thorne and Reinhardt 2008 cited in Sundqvist and Olin-Scheller 2013, 332).

Despite the existence of pedagogical models, teachers often fail to positively acknowledge and capitalise on what students learn outside the classroom (Olsson 2011; Sundqvist 2009, 2011; Sundqvist and Oline-Scheller 2013; Reinders and Benson 2017). This is often due to both their beliefs, and lack of training. In her doctoral research, Menegale (2011, 2013) compared students’ perceptions of their engagement with English outside of the classroom with those of their teachers, and found that teachers overestimated the frequency with which students used English outside the school context (idem, 13). In exploring the reasons behind these findings, Menegale came to the conclusion that the discrepancy between students and teachers’ perception regarding language use beyond the classroom could result from a lack of awareness on the part of either or both group, or from “lack of a process of classroom reflection and sharing on this particular topic” (ibid.). Indeed, Menegale (ibid.) highlights that teachers’ perceptions seemed to derive from either impromptu conversations with their students or as a consequence of students asking for their help for texts downloaded from the internet, and only in a few cases from a survey conducted at school.

Despite the fact that Menegale's (2013) arguments are to be viewed within the domain of learner and teacher autonomy (see Benson 2013 and Little 1995 for an overview on the topic), the implications in our context are important: the only way teachers can bridge the gap between in and out-of-school English language learning is if they develop both their awareness and teaching skills/tools (Sundqvist and Olin-Scheller 2013, 333). In particular, Sundqvist and Olin-Scheller (2013) report on a training programme in Sweden called "Boost for teachers", which aimed to promote language teachers' professional development. The programme involved more than thirty thousand teachers and focused on both subject theory and teaching methodology. Findings from a small survey revealed that the training proved to be very successful in empowering teachers to diminish the gap between school and extramural English, as they claimed to feel more comfortable when addressing their students' needs and interests (ibid.).

2.5. Our contribution to the debate

According to Benson and Reinders (2011, 5), while studies on language learning and teaching beyond the classroom have certainly appeared through the years, there is now an increased interest on the part of researchers to investigate learning in settings beyond the classroom. Indeed, the underlying assumption is that acquisition should no longer be seen in "purely cognitive terms, but in terms of participation in communities and contexts of various kinds" (ibid.).

In this chapter, we have given an overview of some of the aspects that have been explored in the field of applied linguistics in relation to language learning beyond the classroom. We have given examples of studies investigating both informal and non-formal learning, reporting on some of the findings about what and how students learn in different contexts beyond the classroom and the impact it has on their language development and affective factors. In so doing, we have also tried to give an idea of how multifaceted and complex this field of research is. In fact, we have looked at learning beyond the classroom from multiple perspectives, also highlighting the overlaps between informal and non-formal learning. We have also hinted at the emergence of CLIL beyond the classroom as an important area of inquiry. On the one side, researchers have built parallelisms between the benefits of CLIL and of English extramural exposure. For example, Sylvén and Sundqvist (2012) deal with the similarities between extramural English and CLIL by comparing the effects of CLIL with those of digital gaming. On the other hand, researchers have started wondering whether CLIL students are more predisposed

to informal English beyond the classroom. From this perspective, Lancaster's (2018) study revealed that the CLIL students in her sample dedicated more hours to learning English outside of school in comparison to their non-CLIL counterparts (*idem*, 111).

In the current research, we are interested in devising a pedagogical framework that integrate CLIL and museum-based pedagogies with the aim of bridging the gap between formal (school) and non-formal (museum) language learning. In so doing, we also intend to contribute evidence to the debate on how and what students learn outside of the school context. In particular, we believe that to be able to evaluate the learning gains, both cognitive and affective, of language learning beyond the classroom, the specific setting needs to be fully described, taking in consideration its socio-cultural, physical, and pedagogical aspects. From this perspective, Chapter 3 will offer a detailed description of both the theories of learning in the museum and the pedagogical implications. Finally, in Chapter 5 we will give an outline of (i) the research on L2/FL/CLIL education in the museum and (ii) the programmes museums at both international and Italian level have implemented to promote language skills.

3. Learning and teaching in the museum

In her Master Dissertation entitled “Making Human Rosetta Stories: Museums and Foreign Language Learning”, Wilson (2012, 11) asks two very interesting questions: “What attraction might museums hold for foreign language teachers and their students? What might lead a foreign language class to give up valuable class time and money in order to participate in a museum program?”. In our research, we might have to bend these questions a little, as we focus on the integration of content and foreign language learning, but the core dilemma remains: why delivering content and language integrated learning in the museum and how to go about facilitating this type of learning?

To respond to these question, we need to fully understand what a museum is, how it fulfills its educational mission, and what specific physical, personal, social, and instructional aspects (see Falk and Dierking 2000) influence students’ cognitive and affective learning as resulting from a school trip to a museum. Thus, in Paragraphs 3.1. and 3.2., we will describe how the museum came to acquire the current organization and mission. In Paragraph 3.3., we will explore the history, policies, and current state of museum education, with a particular focus on the Italian context. In Paragraph 3.4., we will outline the main knowledges and competences that a museum educator should have. In Paragraph 3.5., we will outline the literature review on the benefits of museum learning, and the educational power of objects, while in Paragraph 3.6. we will describe the main theories of learning in the museum. Finally, in Paragraph 3.7. we will look at the main strategies/activities characterising museum-based pedagogy, and in 3.8, we will outline some of the findings related to school-museum collaboration, and their pedagogical implications.

3.1. What is a museum?

A hospital is a hospital. A library is a library. A rose is a rose. But a museum is Colonial Williamsburg, Mrs. Wilkerson’s Figure Bottle Museum, the Museum of Modern Art, the Sea Lion Caves, the American Museum of Natural History, the Barton Museum of Whiskey History, the Cloisters, and Noell’s Ark and Chimpanzee Farm and Gorilla Show.

(Richard Grove 1969 quoted in Alexander and Alexander 2008, 1)

That of “museum” is a concept that has changed tremendously over time, and today denotes a wide range of institutions that conduct a broad variety of activities, and as such cannot rigidly be classified⁶.

In the XX century, scholars have given different interpretations of how museums should serve the contemporary society, and according to the international definition promoted by ICOM (2007), a museum can be defined as:

a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.

This definition well highlights the changes that the museum concept has undergone through the centuries. It is not only a physical place where objects are kept and exhibited nor a place of research exclusively aimed at experts, but a public forum where both education and enjoyment can take place. However, it is also true that because of the different functions fulfilled by museums, they are complex organisations, which benefit from the contribution of different expertise. According to Desvallées and Mairesse (2009, 20), “museums work with objects which

⁶ The etymology of the English word *museum* comes from the Latin word *museum*, but it is originally from the Greek *museion*, which denoted a temple dedicated to the muses, the patron goddesses of the arts. It later came to identify the institute founded by Ptolemy I Soter 280 BC in Alexandria of Egypt. Despite having a collection of objects, instruments, and other *realia*, the *Museion* of Alexandria was mainly a philosophical academy or university, which also hosted scholars in residence paid by the state (Alexander and Alexander 2008, 3). Similarly, Alexander the Great created a museum and an international library in which scholars could study and practice their arts and science. While the idea that the Greeks and Romans held of the museum is certainly different from ours today, they too owned “public collections of objects valued for their aesthetic, historic, religious, or magical importance” (ibid.). However, the *modern museum* is a product of the Renaissance, and of the humanists’ passion for studying the past and understanding the world around them (idem, 5). For example, Paolo Giovio (1483-1552) uses the term *museum* when referring to his own collection, and later to the building, which came to host it and that was open to the public (see Hernández and Hernández 1994). It was the birth of this museum to inspire the creation of other private collections and the diffusion of galleries. In the XVI century, the words *gallery* (Italian: *galleria*), *cabinet* (Italian: *gabinetto*) or *Wunderkammer* (from German), appeared to indicate the museum concept. Although different in nature⁶, they were in essence the “playthings” of aristocrats and rich people, and thus were rarely open to the public. In the XVII and XVIII centuries, all the noble residences hosted galleries, and some of them would later become museums (see for example the galleries of Wien, Dresda and Düsseldorf). In fact, collecting was a symbol of social prestige and was instrumental for the celebration of the virtues and wealth of the nobility and ruling families. However, collectors slowly realised that to give long lasting life and significance to their collection, they had to transfer them in the public domain. It was in this way that the museum became an institution open to public (the first public museum was the Ashmolean Museum, established by the University of Oxford in 1683), which soon assumed a pedagogical role as regards the education of the people. Following the establishment of the Louvre and British Museum, by the end of the XIX century, regional and national bodies throughout the world had opened museums aimed at the public goods, giving rise to the concept of museum as both a repository of objects and as a site for learning.

form their collection”, and have mainly three functions: “preservation (which includes the acquisition, conservation and management of collections), research and communication” (which includes education and exhibition).

3.2. The museum and its staff

According to Abu-Shumas and Leinhardt (2002, 45), “museums are complex and unique social communities” that are made of subcommunities – such as directors, curators, scientists, educators, security personnel etc. – who, despite working on the same resources (the museum collection), have different goals and thus different agendas. This is the reason why, “if the museum is to operate effectively, these subcommunities must understand each other and at least to some extent appreciate each others’ particular concerns and functions” (ibid.). However, as Abu-Shumas and Leinhardt (ibid.) argue, each museum is characterised by “its own ecology of communities within it”, as different types of museums have different discourses that reflect their goals and communicate to visitors their thinking about their collection (idem, 46).

According to Desvallées and Mairesse (2009, 20), “museums work with objects which form their collection”, and have mainly three functions: “preservation (which includes the acquisition, conservation and management of collections), research and communication” (which includes education and exhibition). From this perspective, the most relevant document that defines the principles, objectives, and aims underpinning the museum profession and that offers guidance in relation to the conduct of museum professional staff throughout the world is the *Code of Ethics for Museums*⁷. The *Code* is the result of three periods of consultation with the membership and its last and final version was approved at the 21st General Assembly of ICOM, Seoul in 2004 with acclamation.

The educational mission of museums can be interpreted as aiming at creating the necessary conditions for visitors to appreciate, enjoy, and understand the natural and cultural heritage (principle 4). However, the museum learning provision cannot be explored in isolation, as it is shaped by the overall organisation, vision and mission of the institution. Whenever planning a museum learning programme, museum educators need to consider both the curatorial framework and the pedagogical implications related to the needs of the audience they are to address. While museum objects can certainly be read in different ways and for different purposes, this does not

⁷ The full version of the *Code of Ethics for Museums* can be found at this link: <http://archives.icom.museum/ethics.html#section6>.

mean that museum educators can forget about the design of the exhibition and how this is linked to specific scientific understandings and interpretation philosophies of the collection. In the next paragraph, we will outline the complexity of the role and profile of museum educators in more details.

3.3. Museum education: definitions and trajectories

The educational function of museums is today widely recognised as being of vital importance for both their financial and social existence. According to Hooper-Greenhill (1994a, 65):

museum and gallery education is now acknowledged in the museum world as a vital and integral part of a well-managed museums, and in the educational field as an essential aspect of enlightened state provision.

However, there is no single definition of what “museum education” entails. In the *Key Concepts of Museology* published by ICOFOM in collaboration with ICOM, Desvallées and Mairesse (2009) define museum education as:

a set of values, concepts, knowledge and practices aimed at ensuring the visitor’s development; it is a process of acculturation which relies on pedagogical methods, development, fulfilment, and the acquisition of new knowledge (idem, 31).

Other concepts that are related to “museum education” are “museum pedagogy” and “museum activities” or “cultural actions”. On the one hand, “museum pedagogy” refers to “a theoretical and methodological framework at the service of educational activities in a museum environment, activities the main purpose of which is to impart knowledge (information, skills and attitudes) to the visitor” (Allard and Boucher 1998 quoted in idem, 32). On the other hand, “museum activities” or “cultural actions” include “mediation” and “interpretation”, which in contrast with “teaching” assume that the visitor is active and autonomous and decides what to learn in the museum (see Paragraph 3.6. for a more detailed description of the theories of learning in the museum).

While in the Anglo-saxon tradition, the term “museum education” is preferred (see Trombini 2003; Cataldo and Paraventi 2007), in the Italian context, “museum pedagogy” (*didattica*

museale) is usually used. On the website of the Italian Ministry of Education, museum pedagogy is described as:

all the methodologies and tools used by both museums and schools to make collections, exhibitions, and in general every kind of cultural exhibition accessible to the wider public
(Ciocca 2006; our translation)

However, this definition is not exhaustive and leaves the reader to wonder about what it is meant by “methodologies” and “tools” (Mazzotti 2010, 34). In an attempt to better define the field, Mazzotti (idem, 39-40; our translation) highlights that museum pedagogy is strictly related to the pedagogies of other disciplines, but it is also different inasmuch:

- i) museum pedagogy is the research field in which the pedagogies related to the other disciplines are integrated in the teaching and learning processes that take place in the museum settings and in relation with the objects and exhibitions.
- ii) Museum pedagogy is the discipline, which studies the problems related to the teaching processes planned and implemented in the museum settings and with the use of objects and exhibitions, and which aims at promoting and supporting the learning processes underpinning the formation of knowledges and competences that can be evaluated.

The definitions presented above are the result of years of debates both in the academic and institutional context. It needs to be pointed out that museum education originated in the Anglo saxon world, and it is relevantly new in Italy. The first educational services developed in England (see Hooper-Greenhill 1994a for an historical overview of the developments of museum education in this country) and in the United States between the end of the XIX and the beginning of the XX century. In particular, the museums in the United States were the first in the world to have an *Educational Department* (De Socio and Piva 2005). At the same time, after World War II, the UNESCO put in practice actions aimed at promoting studies on the social and educational role of museums. In the final recommendations of the conference *Le rôle éducatif des musées* (The educational role of museums), which took place in Athens in 1954, museums were invited to strengthen the collaboration with schools by training teachers on the principles underpinning museum education and by creating areas specifically aimed at fulfilling their pedagogical role.

From 1954, the attention to how museums address the needs of the society they are to serve through their educational services have grown tremendously. However, the focus in our research is on museums' actions to increase school students' learning, and on the relationships they build with teachers.

3.3.1. Museum education in Italy

According to Ciocca (2006, 43), the birth of museum education in Italy can be traced back to a series of political initiatives taking place between the 1950s and 1970s. In the years that followed the foundation of the Italian Republic (1947), museums and schools became useful tools to promote the cultural and educational growth of the country. However, it was only later, in the conference taking place in Perugia (1995) that museums started to abandon the idea of being repository of objects mainly aimed at research and conservation, in lieu of viewing themselves as institutions at the service of the community. In 1963, during the Congress on "Pedagogy of museums and monuments" in Gardone Riviera, the core of the discussion centred around the very low flow of visitors to museums. A series of recommendations were thus developed so as to make the Italian people aware of their cultural heritage. In 1970, the Ministry issued the ministerial document n.128, officialising the foundation of the educational services in the main museums in Italy and of centres aimed at coordinating them within the regional educational bodies across Italy. However, it was with the Conference on the "Museum as a social experience" (Rome, 4-6 December 1971) that the educational function of museums assumed a more modern theorisation. According to Russoli (1972, 79; our translation), the museum should represent "a maieutic instrument, which allows a critical knowledge, and that does not lead to a dogmatic indoctrination, but to an open opportunity of free judgement".

This new idea of the museum as an actor actively involved in the wellbeing and cultural growth of its society led to a number of changes in the school curriculum. In the curricula of both primary (D.P.R. 12 February 1985, n.104) and low secondary (D.M. 9 February 1979) schools, field trips to museums and the importance of familiarising students with the cultural heritage were both introduced for the first time. In the 1996, the *Centro per i Servizi Educativi* (Centre for educational services) of the Ministry of Cultural Heritage and Activities was founded with the aim of providing organisation models, sources, methodologies and specific information on how to promote the cultural heritage.

3.3.2. School-museum partnership: the Italian political landscape

Despite the attention placed on lifelong learning of the last decades, the main target of museum educational services is still school students. This is not surprising when thinking about how and for what reasons museum educational services developed (see paragraph 3.1.2.). However, the partnership between schools and museums has gone through several changes in line with both national and international educational and training policies.

In the Italian context, the first document that highlights the importance for schools to provide students with field trips to museums and other cultural institutions appears in 1996 (Ministry of Education, C.M. 2 October n. 623). In this document, the Ministry asks teachers to organise field trips, which respond to the learning objectives of the school curriculum and can thus be integrated in its practical implementation. In 1998 an agreement is signed by the Ministry of Cultural and Environmental Heritage and the Ministry of Education regulating the efforts of both bodies to promote the collaboration between museums and schools. In particular, Art. 2 of the agreement stipulates that:

the Ministry of Cultural and Environmental Heritage will increase the educational sections through introducing educational services of the Museum and of the Environment in every peripheral office. These services will favour the relationship with schools through collaboratively designing and implementing projects of one or more years, making sure to integrate the respective competences.

The Ministry of Education, University and Research will act so as to make sure that schools, within their institutional autonomy⁸, collaborate with the Regional Authorities cited above (our translation).

The partnership between schools and museums is well represented by the following diagram (adapted from Ciocca 2006, 51; see Figure 7):

⁸ See D.P.R. 8 March 1999, n. 275 for the regulation on school autonomy in relation to the implementation of the national plan for education as identified in the Art. 21 of Law 15 March 1997, n. 59.

Figure 7: Diagram of policies regulating school field trips to museums (Ciocca 2006, 51)



Recently, the Italian school system has undergone dramatic changes thanks to the reform named “The Good School” (*La Buona Scuola*, Law n.107 approved by the Italian Parliament in 2015). This reform has placed great emphasis on three main strands: language education, digital education, and partnership with museums and other cultural institutions. In particular, Art. 7a invites schools to increase students’ artistic and musical competences through collaborating with museums and other public institutions. This partnership is also highlighted in the National Plan for Cultural Heritage Education (*Piano Nazionale per l’educazione al patrimonio culturale* 2015), which affirms that:

school has always been one of the partners *par excellence* of projects aimed at cultural heritage education, and several tools have been implemented to make this partnership more fluid and efficient. Within this perspective, the recent reform named *The Good School* defines a legal frame, which will help create more efficient partnerships (idem, 7; our translation).

3.4. The museum educator: role and profile

A museum educator is a facilitator of learning who builds on collections, location, and history to inspire and excite visitors of all ages. As audience advocates, museum educators recognize and address visitor needs and expectations all the while making museum content accessible, providing context and building meaning (Shery J. Levinsky quoted in Johnson 2009, 47)

Building on what already said in the previous paragraphs about the complexity of the museum context, it is evident that museum educators play a challenging role in fulfilling the educational role of the museum.

Despite recent recommendations and debates, the official recognition of the “museum educator” profession is still underway in Italy. However, in the 1990s, with the foundation of visitor services in public museums in Italy and the need to formalise working contracts related to their staff, a strong debate arose as regards the requirements and professional competences necessary to work as a museum educator.

The first attempt in offering professional guidelines was carried out by the Ministry of Cultural Heritage and Activities with the “*Decreto degli standard di qualità dei musei*” (Ordinance on the standards of quality for museums; D.M. 10 May 2001). This document lists eleven professions working in the cultural field and, for the first time, it underlines the need of appointing a *Responsabile del servizio educativo* (Education Manager) with the following responsibilities: heritage education, scientific dissemination and management of educational activities, training and coordination of teachers and educational staff. A more structured document appeared in 2005, named the “*Carta Nazionale delle professioni museale*” (National map of the museum professions) and issued by ICOM-Italia (2005; revised in 2008). In the *Carta*, twenty professions are identified and divided in 4 areas of expertise. According to this document, the *Responsabile dei servizi educativi* (Education Manager) “designs educational projects and coordinates its implementation, identifying communication and mediation strategies, through using the right tools for the respective audiences. He/she also manages the relationships with schools and other educational stakeholders, universities and research centres, which deals with the professional development related to the different areas of expertise” (idem, 22; our translation). On the other hand, the *Educatore museale* (Museum educator) “implements the educational activities as organised by the museum adapting them to the specific characteristics and needs of its visitors” (idem, 23; our translation). In particular, he/she (idem, 24; our translation):

- conducts the activities, trails, and workshops in relation to the permanent collections and temporary exhibitions.
- Takes part in research groups aimed at the development of educational activities.
- Collaborates to the planning of educational initiatives and innovative projects.
- Collaborates to the creation of texts and materials specific to his/her area of expertise.

- Supports the implementation of the educational services, by signalling needs and issues, and suggesting new initiatives.
- Manages the physical spaces, tools, and materials in accordance with his/her duties.

As for the qualifications that a museum educator should hold to fulfil the abovementioned duties, he/she should have a Bachelor degree in a subject that is related to the museum, a certificate or other qualification in heritage education, and knowledge of at least one foreign language, that is English. The *Carta* also states that: (i) the museum educator's assignment should be formalised with a document that sets out his/her specific functions and responsibilities, ensuring the continuity and fulfilment of the educational role of the museum, and (ii) the museum educator is a resource that can be shared by more than one museum in a collaborative manner (ibid.). The *Carta delle professioni museali*, while not being legally binding, has received wide international recognition, leading to the drafting of the "European Manual of Museum Profession" (ICOM 2007). Today, the *Carta* is still a point of reference for the hiring, training, and coordination of museum educators across the whole cultural sector in Italy.

According to Hooper-Greenhill (1994a, 81), a museum educator should have the following attributes:

- teaching experience in primary, secondary, tertiary, and community education.
- Knowledge up to degree level of the full extent of the museum collections.
- A museum studies qualification and museum experience.
- Be a fluent communicator with skills in all media, including audio-visual media and exhibitions.
- Flair of working with objects.
- Managerial skills.
- Be prepared to work unsocial hours.
- Work with different specialists.

While it is virtually impossible for a museum educator to have the academic expertise of all the different collections of a museum, educational staff need to be given the time to develop that expertise through directly engaging with the collections (ibid.). In particular, "newly appointed education staff will need sufficient time to research the collections and to identify and develop ways of relating the artefacts to the needs and interests of the groups with whom they will be

working”(ibid.). It is also important to point out that museum educators are the interface between the museum and the other institutions, and they need to be aware of the educational policies that frame such institutions. When this is not possible, educators should build links and networks with other specialists so as to be best prepared to address the needs of their educational stakeholders and audiences (ibid.).

According to the guidelines as set by the *Gruppo per l’educazione nei musei scientifici dell’ANMS* (“Group for science museum education”; Mauro and Travagli 2013, 60), a museum educator should (i) be an expert in the discipline related to the collections, (ii) know the museum context in its complexity and operation, and (iii) be competent in relation to the psychological and pedagogical aspects of museum education. Moreover, a museum educator, while being creative, charismatic, friendly, and patient, should also have (Matthieu 2011, quoted in idem, 60):

- listening and observation skills.
- Flexibility and ability to adapt to different situations and visitors.
- Multitasking skills.
- Ability to balance between emotions and rationality.
- Interdisciplinary competences (i.e. languages, theatre, music, ICT).
- Emphatic and welcoming skills.

In line with these guidelines, Celi et al. (2003 quoted in ibid.: our translation) claim that: “the educator of a [scientific] museum is very different from a school teacher (...). A expert educator should motivate rather than explain, ask questions rather than answer them, prompt changes rather than solutions, and he/she should do all of this by maintaining a positive and collaborative attitude. In this sense, he/she should not provide the visitors with a *pre-digested* version of information, but should encourage curiosity, interest, and attention and guide self-learning” and discovery.

Taking into consideration the theoretical and political picture outlined above, we agree with Hooper-Greenhill (1994a, 80) when saying that anyone interested in becoming a museum educator would need a lifetime to acquire all the “ideal qualifications and experiences” required. Continuous reflection, engagement in professional development, and an open mind and interest towards the changes in the cultural setting seems to be both sufficient and necessary conditions to carry out the museum education assignment properly. However, when looking at the demographics and relationships with the union of those actually working in the field of museum education in Italy, the profiles are quite varied: generally young and enthusiastic people, or retired

people that have the time and will to still serve society, professionals with a flexible schedule or that have different jobs and are usually temp workers, people that have transversal skills who have a technical-scientific background and have later acquired pedagogical, museology and communication related skills, or that have a pedagogical background and have later acquired knowledges and skills related to the museum context in which they work (Merzagora and Rodai 2007, 2002; Celi et al. 2013 quoted in Mauro and Visser Travaglia 2013, 61).

Within this complex and evolving picture, museum educators' professional development and their collaboration with other cultural and educational staff are fundamental if the museum is to carry out the process of reflective inquiry of its existence within society (see also ICOM 2017).

3.5. The educational value of field trips to museums

In investigating the educational value of school field trips to museums, researchers have indicated that student groups that visit a museum often show cognitive gain (Stronck 1983 quoted in Griffin 2004, 59), and a more positive attitude towards learning (Orion and Ofstein 1991 quoted in *ibid.*) than those who do not. According to DeWitt and Storksdieck (2013, 182), “researchers have had varying degrees of success in measuring cognitive learning resulting from school field trips, but evidence generally suggests that such trips can have a positive impact on learning of facts and concepts”. However, these gains are often small, which is not surprising given the one-off nature of field trips to museums (*ibid.*). Moreover, there is evidence that field trips to museums can have long-lasting positive affective outcomes (Knapp 2000, Jarvis and Pell 2002, quoted in *idem*, 184), “such as increased motivation or interest, sparking curiosity, and improved attitudes towards a topic” (*ibid.*, 183). Moreover, museums are said to “provide important learning opportunities that potentially bridge the gap between the classroom and the world beyond, enabling education to fulfill its aim of preparing students for the opportunities, responsibilities and experiences of adult life” (Mathewson-Mitchell 2007, 5).

Thus, the conclusion that can be drawn, and that collects the general consensus, is that, under the right circumstances, learning on and from a field trip is “a valuable supplement and addition to classroom instruction, as well as an excellent way to prepare students for future learning” (*ibid.*, 182).

In conceptualising learning resulting from visiting a museum, the team at the Research Centre for Museums and Galleries (RCMG; University of Leicester) has defined the Generic Learning Outcomes (GLOs) framework (Hooper-Greenhill 2004; Hooper-Greenhill et al. 2002, 2004). This

framework was largely piloted in the UK (the sample contained around 3,172 teachers and 56,810 students visiting well over 200 museums across England; see Clarke 2013, 54), and today offers an incredible tool for museums interested in evaluating the impact and outcomes of their educational programmes. The framework is successful inasmuch it conceptualises learning in the museum as multidimensional phenomenon, of which the acquisition of knowledge is just one dimension.

In fact, according to the GLOs framework, learning in a museum positively affects:

- Increase in knowledge and understanding.
- Increase in skills.
- Change in attitudes or values.
- Evidence of enjoyment, inspiration and creativity.
- Evidence of activity, behaviour, progression.

3.5.1. The ‘power’ of museum objects

“The more I looked at them, the more I studied them, the more I appreciated their beauty over and above the information about their context. They were beautiful! The more I described them and handled them, the more emotionally attached to them I became ... My eyes opened” (Vogel 1991 quoted in Dudley 2009, 1)

The quote above well demonstrates that the potential of museums as ideal sites for learning lies in their objects⁹. Indeed, while it is always complex to define what distinguishes learning in the museum from learning in school, the main element that characterises the former is that it “is based on objects and experiences rather than text” (Paris and Hapgood 2002, 40). This idea is capitalised upon by Hooper-Greenhill (1994a, 98), who claims that the realness of objects, that is their material aspect, “enables the possibility of an arousal of interest or a focus of attention that is qualitatively different from the attention given to the written word”. From this point of view, one of the strengths of objects is their ability to engage visitors’ multiple senses, allowing holistic learning experiences. According to Stein and Meredith (1993 quoted in Levent and Pascual-Leone

⁹ With the term ‘object’ we refer to a variety of cultural expressions - both tangible, such as artefacts, made or modified by a person or persons, and specimens, natural objects, and intangible, such as oral traditions and performing arts – “collected” by museums (Dudley 2009). In the current research, most of the objects students engaged with were tangible, mainly art works (frescoes, paintings, sculptures etc.) and animal specimens. However, intangible objects can also be used in devising foreign language learning activities in the museum context.

2014, xvi), “our perceptual experience of the world is richly multimodal”, and we primarily learn through our senses. Pearce (2010, xiv) takes it one step further, claiming that “materiality is all we are and all we have” and it “informs ourselves and everything we know” (idem, xv), especially “our moral and aesthetic understandings, which belong within our sensuous presence in a world known through our senses”. Thus, it is the materiality of objects which we respond to with both our brain and body, and it is this immediate reaction to objects which engage students’ multiple intelligences (Gardner 2011). Indeed, according to Gardner (ibid.), there are seven types of intelligences or abilities - linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal, and intrapersonal - and engaging more than one during object-based learning “not only gives confidence to students with different strengths and weaknesses, but also helps solidify students’ grasp of the concept being studied” (Darling-Hammond et al. quoted in Wilson 2012, 11). From this point of view, objects ‘speak’ in ways that representations of those objects do not” (Evans, Mull and Poling 2002, 55), and, as Hooper-Greenhill (1994b, 102) claims, engaging with photographs or slides of real things often results in a less authentic experience. On one side, two-dimensional reproductions do not allow for any understanding of solidity and scale of the object (ibid.). On the other, “we have to use our (...) imagination to guess from colour what the texture might be” (ibid.). Only experiencing the real thing can truly lead to holistic learning, as “holistic learning is to know things in relation, to understand how parts relate to the whole” (ibid.). From this point of view, objects allow for deeper learning as they offer concrete evidence, which can then be used to understand and verify abstract concepts at different stages of the learning process (Hooper-Greenhill 1994b, 100 and 102). According to Wilson (2012, 11) and Hooper-Greenhill (1994b, 102), the ‘realness’ of objects and the experiential nature of museums also promote students’ active learning. It is shown that engaging with objects allow students “to make connections with their own knowledge, construct interpretations from the information they are given, and analyse information in light of their own reactions and questions” (Tishman quoted in Wilson 2012, 11).

From an affective point of view, objects have an immense power in triggering “an almost infinite diversity of profound experiences among” museum visitors (Weil 2002, 71), and the main reasons for this seems to lie on the potential of objects to provide a direct access “to ‘the real’ – the original creative act, or a rare natural entity” (Evans, Mull, and Poling 2002, 72). Engaging with an authentic¹⁰ object is awe-inspiring, and “invokes our aesthetic sensibilities, our emotions, our

¹⁰ While there is an ongoing debate on the concept of ‘authenticity’ in the museum studies field, in this piece of research, we simply use the term authentic to describe objects that belong to reality.

intellectual curiosity, and our astonishment at the accomplishments of others” (ibid.). Following on this matter, Weil (2002, 72) claims that there is a huge difference between the feeling of empowerment that one feels when standing right before the Mona Lisa and the feeling of looking at one of its replicas on a catalogue or t-shirt. This experience of standing before and ‘authentic’ object is referred to as “magical contagion” (Nemeroff and Rozin 2000 quoted in ibid.), and can be described as a deep feeling of connection between the visitor and ‘the original’ act that can potentially lead to self-empowerment and increased closeness to the ‘sublime’. Thus, it is what Walter Benjamin (quoted in Weil 2002, 72) calls the ‘aura’ of the original object that stimulates such a magical response, and almost turns museums into sites of veneration.

From a pedagogical point of view, objects have different meanings and can be interpreted in very different ways, and, in this sense, they are interdisciplinary, as they can be used to develop cross-curricular connections that go beyond the single museum experience (Hooper-Greenhill 1994b, 100). They also mediate between a more scientific and a more personal response, as they offer the opportunity “to make connections between one's own ideas, thoughts, and experiences, and the broader perspectives of the discipline” (Vartiainen et al. 2012 quoted in Vartiainen et al. 2012, 843). Moreover, objects work as incredible catalysts of one’s prior experience and knowledge, as they promote the recollection of individual memories, and “trigger varying associations in the minds of visitors” (ibid.). Indeed, according to Paris and Hapgood (2002, 44), museum objects represent the starting point of a museum visit, from which thought and reflection are stimulated, and memories, both institutional and personal, of the past are reconstructed. In this sense, objects allow multiple stories to emerge, promoting meaning-making (ibid.). When these different stories are shared with other people, as it usually is the case in museums, then engaging with objects also promote critical thinking and understanding. This is the reason why museum learning is always described as mainly affective, as it has a strong impact on our “attitudes, interests, appreciation, beliefs, or values” (Lord 2007, 16).

3.6. Theories of learning in the museum

In order to describe the several factors involved in the museum learning experience, Falk and Dierking (1992 and 2000) have created a model, in which the visitor’s learning is the result of the “never-ending interaction” of three contexts - personal, socio-cultural and physical – “over time in order to make meaning” (Falk and Dierking 2000, 11). These three contexts are neither separate nor stable, but change through time. As Falk and Dierking (2000, 11) claim:

Perhaps the best way to think of it is to view the personal context as moving through time; as it travels, it is constantly shaped and reshaped as it experiences events within the physical context, all of which are mediated by and through the sociocultural context.

Each of these contexts contains a myriad of details, which are responsible for the factors that influence learning. Falk and Dierking (2000, 137) argue that, among all of these factors, eight are specifically pivotal to museum learning experiences and can be divided as follow:

Personal Context

1. Motivation and expectations
2. Prior knowledge, interests and beliefs
3. Choice and control

Sociocultural Context

4. Within-group sociocultural mediation
5. Facilitated mediation by others

Physical Context

6. Advance organizers and orientation
7. Design
8. Reinforcing events and experiences outside the museum

With regard to the Personal Context - which is “the sum of personal and genetic history that a visitor carries with him/her into a learning situation” (Eshach 2007, 180) – motivation is the factor that has been probably studied the most. According to Falk and Dierking (2000, 18), there are two kinds of motivation: intrinsic and extrinsic. Whereas intrinsic motivation refers to the situation in which “the action is done for its own sake”, extrinsic motivation means that the action is done for an external reward (idem, 19). While both types of motivation are neither good nor bad in and of themselves nor mutually exclusive, intrinsic motivation is connected with what Csikszentmihalyi

calls the “Flow” experience. As Hooper-Greenhill (1994b, 153) claims, Flow “refers to a feeling of deep involvement and effortless progression” and depends upon the satisfaction of the following conditions (idem and Falk and Dierking 2000, 24):

- the task must match or be attainable by the present ability of an individual to perform
- the focus of attention must be limited to a small number of stimuli
- all the senses must be involved
- the experience must contain coherent and clear goals for action
- the experience must provide clear and unambiguous feedback

The interesting idea that Hooper-Greenhill (1994b) carries out is that all individuals, even those at a low level of aesthetic skills, can have a flow experience in a museum if the conditions outlined above are met. The researcher discusses flow in relation to individual visitors, but it can be argued that even those who visit the museum as part of a school trip have expectations as regards the opportunity of experiencing flow during their time in a museum. From this perspective, expectations play a vital role in the outcomes of the museum experience: when goals and feedbacks are not clear, learning suffers. Equally important are also the role of choice and control over learning. People are particularly motivated to learn when they feel they have control over what they are learning. For many years, learners were seen as empty vessels ready to be filled with knowledge by this or that teacher. The belief was that learning occurred through accumulation and absorbing of knowledge. However, it is now widely accepted that learning occurs through the individual’s personal and social meaning-making of sensory data. Indeed, according to Hein (1991)’s Constructivist Learning Theory:

Learning is not understanding the ‘true’ nature of things, nor is it (as Plato suggested) remembering dimly perceived perfect ideas, but rather a personal and social construction of meaning out of bewildering array of sensations which have no order or structure besides the explanations (...) which we fabricate for them.

From this point of view, learning is a continuous process of construction of new meanings on the base of prior knowledge and understanding (Falk and Dierking 2000, 27) and is subjected to the individual’s choice and control.

In regard to the Sociocultural Context – which relates to the social nature of humans – it is important that all forms of informal learning are socio-culturally situated (Eshach 2007, 180). As Falk and Dierking (2000) well highlight, because humans are primarily social animals who share knowledge and experience within delimited communities, “learning is both an individual and a group experience” (idem, 50). For this reason, the sociocultural dimension of any learning situation is pivotal as regards “people’s ability to remember the experience” and shape “subsequent experiences with the same objects, ideas or events” (idem, 92). Among the communities of learners cited by Falk and Dierking in relation to “within-group socio-cultural mediation”, attention will now be focussed on the school groups “community”. According to the two authors, the social aspect of school trips is very important for students and, if taken into consideration and capitalised upon, can lead to an increase in learning (idem, 102). The research conducted on school groups suggest that students prefer to share what they are learning, during their visit, with their peers, instead of listening to adult educators. They also seem able to define in which way they could best share and learn museum contents and discuss the conditions under which they visit a museum (idem, 103). Finally, they perceive museums as places to learn about new things (ibid.). In outlining a longitudinal study at Bank Street College in New York City, Falk and Dierking (ibid.) highlight how children seem to recall better when:

- the museum visit is linked to the school curriculum.
- They have choice and control over the museum experience
- There are multiple visits.

As regards the “socio-cultural mediation by others”, museum staff, educators included, play an important role in positively influencing the visitor experience, especially when they are well trained and have a good understanding of museum visits dynamics (ibid.). These results will prove very useful when outlining the issues in school-museum collaboration (see Paragraph 3.8.).

In regard to the Physical Context – which is the physical environment in which the learning takes place - three factors seem to affect museum learning. The first one refers to novelty and to the difference between how frequent and new visitors behave in the museum context. While frequent visitors pay more attention to the exhibition, new visitors focus their attention on orientation, way-finding, behaviour modelling and general efforts to cope with novelty (Falk and Dierking 2000, 55). In order to reduce the novelty effect, advance organisers, such as orientation, need to be taken into consideration when dealing with new visitors. Indeed, orientation is also a tool required to

fulfil visitors' expectations, which, if are not met, can negatively affect the enjoyment of their experience (idem, 117). According to Orion (1992 quoted in Eshach 2007, 182), the success of a field trip in terms of students' productivity, depends upon the fulfilment of three conditions: the familiarity with their assignments and field trip and the kind of events in which they will participate. The research has indeed revealed that the Novelty Phenomenon influences the students' both emotional and cognitive learning outcomes and suggests the reduction of its effects by identifying three novelty-reduction approaches (Burnett et al, 1996 quoted in *ibid.*):

- increasing students' familiarity with the physical location.
- Insuring that students have the appropriate level of knowledge of the topics or focus of the exhibits/activities.
- Providing preceding opportunities for students to practice relevant skills.

The second major factor is the design of the museum/exhibition. Because learning is highly situated, people are affected by how a space is physically organised, both as regards what they observe and what they remember. According to Falk and Dierking (*idem*, 57), even the absence or presence of adequate seating can have an impact on visitors' learning as much as light and noise. However, it is important to highlight that when dealing with groups, the most central of all the physical features is the size of the rooms. Indeed, this last aspect is of major concern for museum educators, especially during guided tours, and usually affects both the choice of the museum contents and the order in which they are presented. Finally, the last factor relates to the impact that events outside the museum have on the reinforcement of the museum experience. Given that “people learn by accumulating understanding over time, from many sources in many different ways” (*idem*, 139), it is no surprise that the experiences inside the museum become relevant and useful when enabled by events outside the museum. This is the reason why it is very difficult to track what people actually learn from a museum visit: it can even take years before a visitor is able to make meaning out of what he/she has experienced in the museum. According to Falk and Dierking (*idem*, 140), “the knowledge and experience gained from a museum is incomplete; it requires enabling contexts to become whole”. Associated with this concept is the definition of learning as highly “situated”, which refers to the difficulty that people have in transferring knowledge acquired in a certain context to another. According to the available research, because learning “appears to be inextricably bound to the environment in which it occurs” (*idem*, 59), people of all kinds seem unable to apply the principles learned in a context to

novel contexts. As Falk and Dierking suggest, the transfer of knowledge needs to be facilitated, for example through interdisciplinary projects and school activities that connect the museum trip to the school curriculum. These actions are thought to create relevant physical contexts for the students' learning, "resulting in greater transfer and subsequent learning" (idem, 60).

Even though Falk and Dierking's Contextual Model of Learning describes the museum visit from a holistic perspective, Eshach (2007) criticises the fact that the model does not place the teaching context where it is supposed to be. In discussing school trips to science museums, Eshach argues that Falk and Dierking's Contextual Model of Learning and Orion and Hofstein's Three Factors Model should be combined and adds to the three contexts originally presented by Falk and Dierking a fourth one, the *Instructional Context*, to account for the teaching context. This fourth context sums up the three factors that, in Orion and Hofstein (1994, quoted in Eshach, 2007)'s model, affect learning during scientific fieldtrips in natural environment:

- teaching factors (e.g. teaching methods and aids, quality of teachers, location of the field trip in the curriculum structure).
- Field trips factors (e.g. duration and attractiveness of the trail, weather conditions).
- Student factors (e.g. previous knowledge of associated topics, previous attitudes to subject matter, previous acquaintance with area in question).

Through incorporating these factors into the *Instructional Context*, Eshach (2007) highlights the importance that the beforehand trip preparation has on the students' both cognitive understanding of and emotional preparation for the field trip.

3.7. Museum-based pedagogy

Museum-based pedagogy employs a variety of educational tools, which are adapted to suit the specific audience (see Hooper-Greenhill 1994b, 166). Museums can offer *guided tours*, *lectures*, *workshops*, *hands-on activities*, *forums* and so on. However, the two types of techniques, which are of particular importance for the current discussion are *guided tours* and *workshops*. Nonetheless, workshops and active learning of all sorts *should* be preferred in museums. The aim should be that of offering "a form of experience that is not possible elsewhere", meaning that "close contact with the collections through handling, careful looking, drawing, and discussion" should be enabled (Hooper-Greenhill 1994b, 166).

3.7.1. Teaching with objects

In Paragraph 3.5.1., we described the benefits of object-based learning on students' cognitive and affective learning outcomes. In this paragraph, we aim to outline the pedagogical strategies to engage students with museum objects. In exploring the model and the strategies involved in teaching with objects, Hooper-Greenhill (1994b, 232) claims that the first stage is about using all the senses (sense-perception) to collect "as much data as possible about the object(s) under analysis". Thus, the second stage is about discussing the data, in relation to previous knowledge and experience, and sharing these perceptions with others (ibid.). Because of the different ways in which objects are approached, "hypotheses and deductions as to use and meaning over time and through space may be constructed and tested".

3.7.1.1. Questions

Questions are essential tools in carrying out the abovementioned actions, and different types of questions can be used to move from "simple recall, through convergent divergent and judgemental thinking to a synthesis of the intellectual process as a whole" (Hooper-Greenhill 1994b, 158). Hooper-Greenhill (ibid.) in particular mentions the following:

- **Memory questions:** require the recall of facts, a recognition of things and a description. They tend to begin with '*How many...?*', '*What is the...?*', and '*Name the...?*'.
- **Convergent questions:** focus on specifics, that which is already known or understood. They require answers giving explanations, making comparisons or discussing relationships. "*What does this lever do?*", "*How is this bag like that bag?*", and "*How do these two pieces of fabric differ?*"
- **Divergent questions:** open things up out, and more than one answer may be appropriate. Imagination, hypothesising, the use of knowledge to solve problems, prediction, inference and reconstruction are all required. They tend to begin with: "*What if...?*" and "*How many ways...?*".
- **Judgemental questions:** require personal unique answers based on choice and evaluation. The formulation of opinion is required, and views will have to be presented, justified, and supported by evidence. These questions ask: "*What do you think about...?*", "*Do you agree that...?*", "*What is your reaction to...?*", "*Which do you think...and why?*".

- **Synthesis questions:** these questions are very important at the end of a discovery or thinking process “What have we learnt about...?” and “What did...tell us?” demand the recall of recent experience, enable a review and evaluation of what has happened, and enable the contextualisation and assimilation of new knowledge or material.

The positive aspect of using these questions is that they help develop students’ thinking skills through a process that goes from the concrete to the abstract, and from recalling what is already known, interpreting it through new evidence to construct new knowledge (ibid.; see also Shuh 1982 for an example of how questions could be used to teach with objects).

3.7.1.2. Visual Thinking Strategies (VTS) technique

Visual Thinking Strategies, commonly referred to as VTS, is a teaching strategy based on Housen’s (1999) Theory of Aesthetic Development, and it is widely used in museums to develop visitors’ visual literacy¹¹, thinking, and communication skills through engaging with art (Yenawine 2013, 17).

According to Housen, there are five stages of aesthetic development¹², which “represent different ways of making sense about a work of art” (Housen 1999, 9), and we can help students pass from novice to expert viewers, by giving them the opportunity to look at art of increasing complexity, asking them to answer developmentally based questions, and facilitating carefully designed peer discussions (Yenawine 2013, 20). Yenawine outline the following aspects as being pivotal to facilitating VTS:

¹¹ With ‘visual literacy’ we mean “(...) the ability to find meaning in imagery. It involves a set of skills ranging from simple identification (naming what one sees) to complex interpretation on contextual, metaphoric and philosophical levels. Many aspects of cognition are called upon, such as personal association, questioning, speculating, analysing, fact-finding, and categorizing. Objective understanding is the premise of much of this literacy, but subjective and affective aspects of knowing are equally important.” (Yenawine 2016, 1)

¹² Housen (1999)’s five stages of aesthetic development are: *Accountive* (stage 1), in which people, “ using their senses and personal associations, (...) make concrete observations about the work of art that are woven into a narrative” (idem, 9); *Constructive* (stage 2), in which “ set about building a framework for looking at works of art, using the most logical and accessible tools: their own perceptions; their knowledge of the natural world; and the values of their social, moral and conventional world.” (ibid.); *Classifying* (stage 3), in which “viewers adopt the analytical and critical stance of the art historian. They want to identify the work as to place, school, style, time and provenance” (idem, 10); *Interpretive* (stage 4), in which “viewers adopt the analytical and critical stance of the art historian. They want to identify the work as to place, school, style, time and provenance”; and, *Re-creative* (stage 5), in which “viewers, having established a long history of viewing and reflecting about works of art, now ‘willingly suspend disbelief.’” (idem, 11).

- the *group*: discussions are fruitful when they are the result of a group of people, particularly peers, viewing, reasoning and sharing their thoughts.
- *Art*: the ‘hook’ of any visual experience is art, which needs to be selected to appeal to students, allowing them to recognise the familiar and, at the same time, be engaged by the mystery of what they are looking at.
- *Silent looking*: students need to be allowed time to look at the artwork, giving them time to think before they speak.
- *Questions*: discussion needs to be scaffolded through the following questions - based on Housen’s (1997) research - (1) *What’s going on in this picture?*¹³ (aimed at initiating the inquiry into the meanings contained in the image) (2) *What do you see that makes you say that?* (aimed at supporting students in their reasoning about the artwork, by asking them to provide evidence grounded in the artwork itself) (3) *What more can we find?* (aimed at deepening the meaning-making process).
- *Facilitation*: museum educators and teachers facilitate the discussion by pointing to the observed details, paraphrasing students’ comments and, linking one comment to the other.
- *Ending a lesson*: as there are no right or wrong answers, a VTS discussion usually ends either with a ‘thank you’ or other comment by the teacher.

3.7.1.3. Discovery learning and Inquiry Based Science Education (IBSE)

According to Pedaste et al. (2015, 48), IBSE (Inquiry Based Science Education) “is an educational strategy in which students follow methods and practices similar to those of professional scientists in order to construct knowledge. It can be defined as a process of discovering new causal relations, with the learner formulating hypotheses and testing them by conducting experiments and/or making observations. Often it is viewed as an approach to solving problems and involves the application of several problem solving skills. Inquiry-based learning emphasizes active participation and learner’s responsibility for discovering knowledge that is new to the learner. In this process, students often carry out a self-directed, partly inductive and partly deductive learning process by doing experiments to investigate the relations for at least one set of dependent and independent variables”.

¹³ Despite Yenowine and Housen (see Yenowine 2013, 20) affirming that the question ‘What do you see in this picture?’ is not really an equivalent of ‘What’s going on in this picture?’ as it does not provide the same complicated way of thinking, we still think it is an appropriate question when confronted with foreign language students.

3.8. School-museum collaboration

Despite the potential and important value of field trips to museums, researchers have pointed out that school-museum collaboration is still very problematic, especially in regard to teachers' perceptions and training, museum field trips planning and implementation and the communication and collaboration between museums and schools.

In describing the outcomes of three studies on teacher's perspectives on museum field trips in three countries, Anderson, Kisiel and Storksdieck (2006, 367) come to the conclusion that the decision to do a museum field trip is influenced by a wide range of factors:

- the venue location
- the safety and security of the students
- the relevance of the field trip experience to the school curriculum
- the communication between the field trip venue and schools
- time
- the lack of support from the school administration

Another factor is certainly the Cost of the excursion (Hooper-Greenhill, 1994c, 159), which can be off-putting.

In relation to teachers' perceptions, researchers have found that teachers often assume they have a marginal role on the realisation or value of museum experiences (Mathewson 2006, 7). Indeed, many of them wrongly believe that, once in the museum, "meanings will be transmitted in a naturalistic manner" (ibid.). According to Griffin (1994 quoted in Anderson, Kisiel and Storksdieck 2006, 367), the role the teachers play on student learning in a museum varies between being totally passive, "following the museum guide, helping with keeping the order, and watching their students" (Falk and Dierking 2005, 932), to being active and working with students in small groups. As Falk and Dierking (ibid.) claim, teachers' ill perception of field trips as fun events instead of well-planned educational experiences is clear in the lack of clear goals for their excursion and of students' preparation through pre- and post-visit activities. Indeed, according to Griffin (quoted in Bailey, 1999), it seems clear that teachers have a difficult time understanding "the premises of learning in informal environments, such as learning through play and direct involvement with phenomena" and the way they can link the museum visit to the school curriculum. In this regard, the definition of "curriculum fit", which is usually ranked by teachers

as the most important factor in choosing a museum programme over another, seems to be widely underestimated (Anderson, Kisiel & Storksdieck 2006, 379). In studying the Israeli museum context, Falk and Dierking (2005) found that of the thirty teachers taking part in their study, only eight connected the topic of the museum trip to what was being learned in school and only three said that they would talk about the visit, while others stated that they would not do anything beyond the visit itself (idem, 928). It is important to highlight that, even though Falk and Dierking's study is only related to the situation of Israeli museums, researches in other countries have showed similar results.

3.8.1. Supporting the integration of the museum visit into the school curriculum

In paragraph, we looked at Falk and Dierking (2000)'s Contextual Model of Learning in the Museum, but we did not outline the practical implications for the design of museum learning programmes. We will do so by giving an overview of DeWitt and Osborne (2007)'s *Framework for Museum Practice*. The goal of this framework is to maximise the effectiveness of field trips to museums by addressing Falk and Dierking (2000)'s factors (see Paragraph 3.6.) through practical principles:

- Principle 1: Adopting the perspective of the teacher
- Principle 2: Providing structure
- Principle 2a: Reduction of “novelty effect”
- Principle 2b: Reinforcement of the learning experience
- Principle 3: Encouraging joint productive activity
- Principle 3a: Discussion among peers and with adults
- Principle 3b: Curiosity and interest
- Principle 3c: Choice and control
- Principle 3d: Cognitive engagement and challenge
- Principle 3e: Personal relevance
- Principle 4: Supporting dialogue, literacy and/or research skills

According to Principle 1, museum educators need to get acquainted with “current teacher practice on school field trips, teacher objectives for these visits, and contextual factors which can impact

how teachers conduct on such excursions (including what they do before and after in the classroom)” (idem, 188).

Principle 2 regards the field trip’s degree of structure. According to DeWitt and Storksdieck (2008, 186), if adequately designed, worksheets are perceived by both teachers and students as supporting learning. In his study, Heimlich (2008 quoted in *ibid.*) reports that efficient worksheets can help students reflect on their visit experience, while Kisiel (2003 quoted in *ibid.*) suggests that they “can be highly effective in promoting discovery- and inquiry-style field trip experiences”. However, it is the degree of structure that defines whether worksheets are effective learning tools or not. From Bamberg and Tal (2007)’s research, it seems that students are more engaged in worksheets that offer “some kind of structured task or direction”, but also allow “some choice and control in exploring an exhibition”. Worksheets with “limited choice” seem to “enhance deeper involvement, scaffold content learning, and encourage social interactions, particularly between students and adults” (*ibid.*). In outlining the recommendations for designing successful worksheets, McManus (1985 quoted in *ibid.*) claims that worksheets should:

- encourage observation.
- Allow time for observation.
- Refer to objects rather than labels.
- Be unambiguous about where information might be found.
- Encourage talk among group members.

Principle 2a takes into consideration the novelty phenomenon (physical context in Falk and Dierking 2000, 55), which refers to the fact that while frequent visitors pay more attention to the exhibition, new visitors focus their attention on orientation, way-finding, behaviour modelling and general efforts to cope with novelty.

Principle 2b also deals with the physical context and the necessity of integrating the museum visit into the school curriculum. According to DeWitt and Osborne (2007, 690), “resources should also support follow-up activity that builds upon content encountered during the visit”.

Principles 3 and 3a address the sociocultural context. As Falk and Dierking (2000) well highlight, because humans are primarily social animals who share knowledge and experience within delimited communities, “learning is both an individual and a group experience” (idem, 50). For this reason, the sociocultural dimension of any learning situation is pivotal as regards “people’s ability to remember the experience” and shape “subsequent experiences with the same objects,

ideas or events” (idem, 92). This is why DeWitt and Osborne (2007, 690) promote the use of collaborative tasks that spring discussion and dialogue among students but also between students and teachers.

Principles 3b to 3e deal with the personal context. According to DeWitt and Osborne (ibid.), “resources should be developed with a focus on evoking pupils’ curiosity and allow them to pursue their own interests”, but they should also provide students with choice and control over what they are learning, engage them cognitively in a challenging matter and be personally relevant.

Finally, principle 4 highlights the importance of promoting dialogue, literacy and/or research skills.

In specifically addressing school museum collaboration, Mathewson-Mitchell (2007, 9) stresses the importance of training teachers so as to enable them to best use museums and take full advantage of their learning potential. In particular Hooper-Greenhill (1994c, 244) highlights that teachers are not always clear about what is possible to do in a museum and this usually leads to their objectives not being completely formed. Thus, she suggests a pre-planning moment in which the museum staff explains the potential of the museum and discuss the specific visit with teachers (ibid.). Moreover, she also claims that, if possible, teachers should visit the museum and get acquainted with the environment before taking the students. She further suggests that, in order to support teachers in planning their field trip to a museum, the museum staff should visit the schools, offer teachers’ workshops and/or provide notes and other written materials (ibid.). In terms of school-museum collaboration, the distinction put forward by Xanthoudaki (1998 quoted in Griffin 2004, 65) between art museum programs which are aimed at supporting the teacher by “helping teachers help themselves” through discussing and planning programs with and for teachers” and “ready-prepared programs which may or may not match the teachers’ or students’ requirements” is pivotal. According to her, while visits following the first model are more likely to promote integration of the field trip into the classroom, because of curriculum fit, the latter shows the opposite (ibid.).

In terms of actual planning, Xanthoudaki (1998 quoted in Mathewson 2006, 85) claims that the best way to plan a museum experience is to think of it as a “three part unit”, “consisting of preliminary preparation, visit and follow up work”. Indeed, according to Hooper-Greenhill (ibid.), after defining the objectives, teachers should place the museum visit into their course of study, by designing both pre- and post-visit activities. In regard to the preparatory phase, it is important that teachers explain the objectives of the visit to their students and discuss the knowledge they will

need to best experience the museum contents, though without explaining the specific objects. According to Bailey (1999), an important factor that appears significant in this phase is the knowledge of the environment, so as to reduce the Novelty Phenomenon (see Paragraph 3.6.). Furthermore, Bailey (ibid.) advises towards focussing the pre-visit orientation on students' personal agenda, in order to promote their freedom and control over learning in the museum setting. In regard to the follow-up phase, its importance is undeniable, given that one of the intrinsic characteristics of learning in a museum setting is that museum experiences become actual knowledge only when they are reinforced by subsequent experiences. Thus, if teachers want the museum visit to be of any value they need to think about ways to follow-up the field trip with classroom activities.

In exploring ways to make school-museum collaborations more efficient, Stone (1986 quoted in Mathewson-Mitchell 2007, 85) lists the following components to establish and maintain cooperative relations between museums and schools:

- prelude of cooperative relationships – involves a familiarity with the priorities and operations of each prospective institution involved.
- Building cooperative relationships – requires building strong communication between teachers and museum staff.
- Preplanning art museum/school programs – establishes programs and services for teachers to receive in-service training.
- Planning art museum/school programs – requires the involvement of both museum staff and teachers to establish logistics, mutual goals and objectives appropriate for the museum visit. Curricula are determined in conjunction with learning goals and objectives.
- Implementing art museum/school programs – involves the implementation and evaluation of programs and operations and any necessary modifications.
- Teacher support – includes resources, activities and intervention extended by the museum for teachers to employ in the classroom in conjunction with museum visits.
- Evaluating art museum/school programs – teacher feedback and evaluations are initiated to establish appropriateness and effectiveness of programs.
- Maintaining cooperative relationships – the model concludes with an emphasis on maintaining partnerships once they have been established to further benefits gained from museum-school collaborations.

It is important to point out that, in order to provide the best educational services, museums need to establish fruitful relations with other external bodies or/and museums. Moreover, even within the museum, communication needs to be clear as regards the delineation of responsibilities and tasks (Hooper-Greenhill 1994c, 241), so as to avoid gaps that can diminish visitors' learning outcomes.

4. Learning and teaching in CLIL

In this chapter, we aim to give an overview of the main theoretical aspects, which underpin the Content and Language Integrated Learning (CLIL) approach within the formal context. First, we will provide a definition of CLIL (Paragraph 4.1.), and explore the developments and political framework within which it has formally been introduced in the Italian school curriculum (Paragraph 4.2.). Thus, we will outline the profile of the CLIL teacher in the Italian context (Paragraph 4.3.), and provide a synthesis of the relevant empirical research on the impact of CLIL on students' learning and affective factors (Paragraph 4.4.). Finally, in Paragraph 4.5., the main pedagogical aspects of teaching in CLIL will be described.

This chapter should in no way be considered exhaustive of the large and varied literature on CLIL. However, we think it is successful in presenting an overall picture of both the evidence, and pedagogical aspects, which informed the development of the “interventions” (see Chapter 6 and 7), and the reflection/inquiry (see Chapter 8) in our research.

4.1. What is CLIL?

CLIL (*Content Language and Integrated Learning*) is a term, which was first developed by the European Network of Administrators, Researchers and Practitioners (EUROCLIC) in the mid 1990s and can be defined as (Marsh and Langé 2000 quoted in Wolff 2007, 16):

(...) any educational situation in which an additional language and therefore not the most widely used language of the environment is used for the teaching and learning of the subjects other than the language itself.

Marsh and Langé (quoted in *ibid.*) assert that there are three necessary points to make as regards this definition. Firstly, the CLIL approach is concerned and aims to improve both students' FL and content competence. Secondly, in the CLIL context, FL and content are viewed as a whole and learnt in integration. Finally, even though the FL is used as medium of instruction, there needs to be time for focussing upon it when necessary and in order to support and facilitate the learning of the content. It is indeed this “integrating” nature of CLIL that differentiates it from similar developments (Coyle 2012, 3), such as immersion and content-based instruction in a FL, and makes it:

(...) a powerful pedagogic tool which aims to safeguard the subject being taught whilst promoting language as a medium for learning as well as an objective of the learning process itself (Coyle and Marsh 2002 quoted in *ibid.*).

According to Dalton-Puffer (2007, 3), CLIL is “the ultimate dream of Communicative Language Teaching and Task-Based Learning rolled into one”, as it allows students and teachers to engage in authentic communication in the context of a non-linguistic subject (i.e. physics, mathematics, history), while at the same time promoting students’ experiential learning (Bier 2018, 70; see Buccino and Mezzadri 2013 for the impact of the neuroscientific theory of *embodiment* on language teaching). In fact, in CLIL, students engage in *tasks* (see Paragraph 4.5.3.), which require them not only to *know* the language (i.e. linguistic, extralinguistic, socio-pragmatic, and intercultural competence), but also to *know how* to work with the language (i.e. receptive and productive skills), and to *know how to do things* with the language (Balboni 2010, 39). In this way, students develop their skills and apply them in authentic communicative situations, such as a class presentation, and in the production of learning objects (i.e. a research project, a poster), which represent evidence of their linguistic and content learning (Bier 2018, 70). In this sense, CLIL responds to the needs of the European Union to achieve the best possible language and communication educational outcomes within a globalised economy (see Coyle, Hood, and Marsh 2010, 4), in the light of preparing 21st century professionals (see European Commission 2012).

4.2. CLIL in Italy

In the last twenty years, several European member states have decided to embed CLIL in their mainstream education (see Coonan 2005; Coyle, Hood, and Marsh 2010; Dalton-Puffer and Nikula 2006; Marsh 2002; Cinganotto 2016). In this scenario, Italy is certainly known as the country with the longest history of experience. As a matter of fact, the first CLIL experiments date back to the 1990s, but were mainly carried out in international and bilingual schools, located in the northern regions (Cinganotto 2016, 382). In particular, with the law on school autonomy (1999), schools and teachers gain a new flexibility in addressing the specific needs and interests of the students and communities they serve, setting programmes that involve different subjects, in the form of curricular and extracurricular FL modules (Coonan 2012, 11-13). Over the years, CLIL has gained more and more approval by the Italian national bodies, leading to the recent School Reform (*Riforma degli Ordinamenti della Scuola Superiore* 2009, and subsequent decrees,

d.P.R. 15/3/2010, n. 88- 89), which introduced CLIL as mandatory in the final year(s) of upper secondary school, with differences among types of schools¹⁴, according to the following instructions (Cinganotto 2016, 383-384):

- the teaching of a subject in a foreign language is to be offered in the final (fifth) year at *licei*; any curricular subject can be chosen.
- The teaching of a subject in a foreign language is to be offered in the final (fifth) year at *technical schools*; the subject must belong to “specialization” area.
- The teaching of two subjects in two foreign languages is to be offered in the final three years at *licei linguistici*.

The Reform foresees the non-linguistic subject (i.e. science, history, and so on) teachers (henceforth referred to as content teachers) as the only responsible for the teaching in CLIL, while the “FL teachers are not directly contemplated in the implementation of CLIL in schools” (Bier 2016, 400; d.m. 10/9/2010, n. 249, art. 14).

The Reform came into force in 2010/2011, and CLIL became compulsory in all third grades of *Licei linguistici* in the 2012/2013 school year, and in all fifth grades of *Licei* and *Istituti tecnici* in the 2014/2015 school year. According to this Reform, the entire curriculum of a non-linguistic subject should be dealt with in CLIL, but as Bier (2016, 400) reports:

given the novelty of the approach and due to the fact that the training of NLS (content) teachers was still under way, transitional rules were issued for the same year (see *Norme transitorie*, Nota MIURAOODGOS, prot. n. 4969, 25/07/2014): as stated in these rules, at least 50% of the NLS curriculum had to be developed in CLIL, and the topics covered through the FL had to be assessed during the State Examination, at the end of high school.

As part of the *Norme transitorie* (see MIUR 2014), the Ministry also gave suggestions as to how to implement CLIL in the school context, one of which involved creating a “Team CLIL”, that is

¹⁴ Following the Reform Law of the second cycle of education in 2003, the Italian high secondary school system is currently structured in: Lycée system (*Licei*), technical schools (*istituti tecnici*), and vocational schools (*istituti professionali*). The *Licei* are then divided in sub-types with different curricula and specializations: *liceo artistico* (specialisation: fine arts, design, sculpture), *liceo linguistico* (specialisation: foreign languages, cultures and literatures), *liceo scientifico* (specialisation: biology, chemistry, physics and math) (for a full description of the other school sub-types, see Cinganotto 2016, 384).

a “group involving different professionals working in cooperation with” the content teacher (Cinganotto 2016, 388). Other suggestions consisted in the creation of schools networks and the use of multimedia and digital devices to enhance both CLIL learning and teaching.

We need to point out that formal training in CLIL for content teachers is provided in Italy by universities in collaboration with the Ministry of Education¹⁵. Recently, efforts have been increased as regards teachers’ professional development in the CLIL methodology through the National Teacher Training Plan (MIUR 2016) approved within the framework of the so called *Buona Scuola* (Good School) Reform. As part of the plan, a large number of training programmes involving both FL teachers and content teachers at all school levels have been activated during the period 2016-2019 (see Cinganotto 2016, 389). However, as Cinganotto (idem, 393) claims, “the training demands are very high and for some teachers, the two training pathways (one in the target language and the other on CLIL methodology) are too time-consuming; while they are studying, teachers also have to keep up with their existing work, as well as family commitments”. Cinganotto’s contribution dates back to 2016, but the situation seems to have not changed. There are still less trained teachers than the number that would be necessary to cover the classes throughout Italy (Bier 2018), and teachers struggle to create strong networks inside their school, and across different schools.

4.3. The Italian CLIL teacher profile

The Italian Ministry of Education has established, through a specific Decree (D.D. n.6 dated 16 April 2012) (MIUR, 2012), that the Italian CLIL teacher should have the following profile (see Table 2 adapted from Table 2 in Cinganotto 2016, 385):

¹⁵ *Corsi di perfezionamento in servizio sulla metodologia CLIL* (20 CFU), funded by the Italian Ministry of Education (*Ministero dell’Istruzione, dell’Università e della Ricerca*: MIUR) (ex d.d. 16/04/2012).

Table 2: *Italian CLIL teacher profile adapted from Cinganotto (2016, 385)*

Language dimension
The teacher: <ul style="list-style-type: none">– has a C1 level of competence in the foreign language (CEFR)– is able to manage, adapt and use subject materials in the foreign language– has a mastery of the specific subject language (specific lexicon, discourse types, text genres and forms) and of the subject concepts in the foreign language.
Subject dimension
The teacher: <ul style="list-style-type: none">– is able to use the subject knowledge according to the national curricula of the relevant school level– is able to teach the subject content integrating language and content.
Methodological dimension
The teacher: <ul style="list-style-type: none">– is able to plan CLIL paths in cooperation with language teachers and teachers of other subjects– is able to find, choose, adapt, create materials and resources to enhance the CLIL lesson also using ICT– is able to plan a CLIL path autonomously, using methodologies and strategies aimed at fostering the learning of content through the foreign language– is able to identify, create and use assessment tools which are consistent with CLIL methodology

4.4. Learning in CLIL: benefits and challenges

It is today common opinion that the learning of the FL in a CLIL context is more authentic than that in a traditional FL learning context (Wolff 1997). Even if in the Communicative Approach the activities, materials and purposes for the use of the FL are authentic, they are nonetheless only a test in preparation for using the FL in the real world (Coonan 2012, 98). On the contrary, in a CLIL context, the learning of a FL is characterised by increased authenticity, with regard to the materials, contents, interaction and context. In particular, Wolff (1997) claims that the materials and contents in the CLIL classroom are more authentic than are those in the traditional FL teaching classroom because: (i) contents are strictly related to real life, (ii) the FL used as a medium of instruction is less ambiguous, and (iii) contents are more complex and rich.

As regards interaction, Wolff (ibid.) asserts that, in a CLIL setting, the increase of authenticity in students' interaction is due to the fact that they: explore real contents through interactive activities, write and read texts in a FL to learn the contents and work on the FL with the purpose of problem

solving, in relation to the learning of the non-linguistic contents. As regards the context, the CLIL environment offers a far richer context than does the traditional FL teaching one. First, the linguistic and cognitive complexity and the range of texts and of the linguistic functions make the CLIL context qualitatively better in relation to the input. Second, both input and output are motivated, because the CLIL student uses the language “to understand concepts, to acquire contents, to reflect on himself/herself and to show comprehension, knowledge and, eventually, doubts” (idem, 101; our translation). Indeed, the CLIL teacher does not teach the FL but promotes its competence through its use as a vehicular language of instruction. Therefore, in the CLIL environment students use the language to learn and not the other way round (ibid.).

Several studies have shown that learning in CLIL has a remarkable positive impact on both students’ affective factors and learning (Coyle, Holmes, and King 2009; Lasagabaster 2011; Lasagabaster, Doiz, and Sierra 2014, Lasagabaster and Sierra 2009; Lasagabaster and Doiz 2016; Coyle 2012, 2013; Coonan 2011). Indeed, according to Lasagabaster (2010, 15):

(...) different types of tasks completed in a CLIL context tend to generate more positive motivational responses than those carried out in traditional EFL contexts and, therefore, they raise the students’ language-learning interest through a more appropriate approach. The use of the foreign language to teach content thus seems to create a learning environment, which is more alluring to students.

Of the same opinion is Wiesemes (2005, quoted in Coyle 2012), who claims that CLIL methodology benefits both teachers’ motivation towards their teaching practice and students’ motivation in learning the FL. In Finland, Seikkula-Leino (2007) conducted a study with the twofold aim of verifying students’ progression of content knowledge, and of evaluating their level of self-esteem and motivation in both CLIL and non-CLIL classes. Her results show that, while being more self-critical than their non-CLIL counterparts, CLIL students also show higher level of motivation towards studying and using the FL in class. In the Basque Country, Lasagabaster and Sierra (2009) compare the attitudes of students in EFL and CLIL classes, coming to the conclusion that CLIL has a positive impact on students’ attitudes towards both the FL and the other languages present in their learning context (i.e. Spanish and Basque). In another study, Lasagabaster (2011) confirms the positive role played by CLIL on both students’ motivation and learning achievements. Interestingly, he shows that the positive outcomes were due to the use of authentic materials and tasks, which differentiate CLIL from the pedagogy traditionally carried

out in the EFL classroom. Doiz, Lasagabaster, and Sierra (2014) carried out a longitudinal research on a wide sample of upper secondary school students with the aim of (i) comparing CLIL and non-CLIL students' motivation towards English, and (ii) understanding the negative and positive aspects contributing to students' motivation in CLIL, as perceived by the students themselves. As regards the first aim, the authors observe that CLIL students were more motivated than non-CLIL students across all age groups. As regards the second aim, the authors find that while younger students (12-13 years old) showed a higher level of intrinsic motivation, older students (14-15 years old) were more instrumentally motivated and showed much more interest than their non-CLIL counterparts. In Austria, Dalton-Puffer et al. (2009) reveals that CLIL can also increase students' self-esteem and willingness to communicate in the FL. However, as Lasagabaster (2017) claims, "it has to be noted that successful learning is not to be gauged only by students' results in standardised tests, but also by students' self-perceptions of their learning outcomes". In effect, both Lasagabaster (*idem*) and Coyle (2013) have concentrated on students' beliefs as regards the aspects, which contribute to the success of CLIL on both students' cognitive and affective gains. Students in Coyle's (*ibid.*) study felt that the contributors of CLIL related to both the provision of stimulating, and more socially meaningful tasks and scaffolding practices, and to the opportunity that CLIL offers to develop language awareness. According to Coyle (*ibid.*), students also felt satisfied about their learning progression, and their ability to overcome the difficulties related to learning a subject through a FL, leading to an increased level of motivation towards using the FL for communicative purposes.

In the Italian context, two studies are worth mentioning as they were conducted in the same regional area of the current research (North-East; Veneto and Friuli-Venezia Giulia). In the first study, Coonan (2007) observes that students' motivation in CLIL results from both the novelty of the methodological approach and the more positive stance and patience showed by teachers in dealing with students. In the second one, Coonan (2011) shows that despite the challenges encountered, the majority of the upper secondary students involved in the research confirmed the wish to continue with CLIL. According to the researcher, students' positive attitudes depended on both the learning situation, in which the teacher plays the crucial role of facilitator, and the personal dimension, that is the sense of satisfaction, the intrinsic motivation, and the ideal self-image of students as competent linguistic users (Dörnyei 2005; see also Bier 2018, 83).

CLIL is also believed to help students develop their general cognitive skills, giving them the possibility to access and acquire new knowledge across the curriculum. From this perspective, a varied amount of studies has demonstrated that not only CLIL students are better language

learners, because they learn it more proficiently and deeply, but are also better content learners, because they process knowledge more deeply and “construct more complex concepts and schemata” (Wolff 2007, 21-22).

However, among the benefits of CLIL, researchers have also highlighted that of fostering multicultural understanding among pupils, both contributing to their personal development and preparing them to become global citizens of the Knowledge Society (Coyle, Holmes and King 2009, 4). This is the reason why the CLIL approach can be adopted with all language learners, even in the early stages, and is open to several different possibilities in and outside of school.

4.5. Teaching in CLIL

As Meyer (2010, 13) points out, “embracing the CLIL approach does not automatically lead to successful teaching and learning”. One of the issues in CLIL is indeed the fact that “the level of the vehicular language is unlikely to match the learner’s cognitive level” (Coyle 2010, 55), thus requiring teachers “to embrace a new paradigm of teaching” (Meyer 2010, 13). According to Bier (2016; 2018), this new paradigm requires a change (i) in the way the lesson is delivered, (ii) in the role played by both teachers and students during the lesson, and (iii) in the way language is used by the teacher. As regards the first aspect, in CLIL, the “traditional lesson model”, in which the “teacher transfers knowledge to students, who passively listen to him/her”, is replaced by a “participated model”, “in which teacher and students – or students in pairs/groups – are active partners, collaborating to co-construct their knowledge and build their skills and competences” (Bier 2016, 397-398). The second aspect regards the adoption in CLIL of a “thinking centred” lesson (see Pavón Vázquez and Ellison 2013 quoted in idem, 398), in which the centre of attention is neither the teachers nor the students but the cognitive and metacognitive processes. The third and last aspect relates to teachers’ critical use of their language. In fact, as Bier (2016, 398) highlights, “CLIL teachers need to master an array of strategies in order to *facilitate* students’ comprehension (scaffolding strategies); to *encourage* student deep reflection upon content and oral production of what has been understood; to *assess* students’ comprehension”.

In researching the type of language competence that students need to have in order to be able to study a non-linguistic subject through a FL, Cummins (2008) distinguishes between two different types of communication, BICS and CALP. According to Coonan (2008a, 25; our translation), BICS (*Basic Interpersonal Communicative Skills*) refers to “the competence which is used for the type of communication aimed at socialising”, that is, the abilities that the students need to have

in order to communicate with friends about daily aspects of their life (i.e. very basic personal and family information, shopping, local geography, employment) or to ask for information and services in contexts, such as at the restaurant and in a shop.. On the other hand, CALP (*Cognitive Academic Language Proficiency*) is defined as a more complex and cognitively demanding competence, which is developed through using the FL in activities that “the imply the use of higher-order thinking skills” (Coonan 2012, 90; our translation), such as analysis, synthesis, evaluation, generalisation, hypothesis and so on. Indeed, this is the type of FL competence that students need to have to approach and learn contents related to non-linguistic subjects (idem). As studies on bilingual formal settings, especially in Canada and in the US, have revealed, the failure experienced by students in studying non-linguistic subjects in the L2 is often closely related to their preparation for a BICS competence in place of a CALP competence. According to Coonan (idem), BICS is usually the competence developed in traditional FL classrooms and is connected to a basic general knowledge, which corresponds to that of the Basic User (A1 and A2 levels) and the Independent User (B1 level), for some activities, of the Common European Framework of Reference (henceforth CEFR).

Indeed, Coonan (2014, 25) points out that a CLIL programme should be both language *sensitive* and language *enhanced*. With the former, she refers to the ability of the teacher to understand what language is needed by students to engage in both receptive and productive skills within the context of a non-linguistic subject. With the latter, she refers to the ability of the teacher to focus her attention on the difficulties related to the linguistic, cognitive, and conceptual dimensions of the authentic texts, and to the subject-specific lexis among the others.

In conducting a coherent examination of the literature, Bier (2016, 2018) has identified four main dimensions as characterising the CLIL methodology:

- 1) module/Unit planning (Coonan 2006, 2012; Menegale 2014; Ricci Garotti 2008; Serragiotto 2014b).
- 2) Teachers’ role in CLIL.
- 3) Students’ role in CLIL.
- 4) Assessment in CLIL (Serragiotto 2014b, 2014c; Coyle, Hood, and Marsh 2010; Ball, Kelly, and Clegg 2015).

These four dimensions will be dealt with in detail in the next paragraphs.

4.5.1. Module/Unit planning

When planning and implementing a CLIL curriculum, teachers and curriculum designers are faced with challenges resulting from both the intrinsic characteristics of CLIL as described in the previous paragraphs, and the wider learning and socio-political context in which a CLIL programme is implemented. In particular, Coyle (2006, 9) identifies four facets of CLIL, which interrelation needs to be taken into consideration when planning and implementing a CLIL curriculum (ibid.): content (the subject matter), cognition (the thinking integral to high quality learning), communication (the language of and for learning) and culture (the global citizenship agenda). On the basis of these four “Cs”, Coyle develops a framework, labelled as the 4Cs-Framework, which she asserts is an ideal tool to support both the planning and implementation of a CLIL curriculum (ibid.). In order for quality CLIL to take place, students need to be provided with opportunities to progress in the knowledge, skills and understanding of the content, engage in associate cognitive processing, interact in the communicative context, develop appropriate cognitive language knowledge and skills “as well as acquiring a deepening intercultural awareness through the positioning of self and <<otherness>>” (Coyle 1999, 53). According to Serragiotto (2014b, 54-55; our translation), planning a CLIL curriculum/unit/module consists of three main stages: (i) an *initial* stage in which the local context is considered, a (ii) *planning* stage in which the school context is considered, and (iii) a *final* stage in which evaluation and assessment of the results are carried out especially in relation to cultural and professional change within the school context.

In *La lingua straniera veicolare*, Coonan (2012) asserts that in order to plan a CLIL curriculum, the following components need to be taken into consideration:

- Context
- Learning situation
- Aims
- Objectives
- Linguistic needs
- Contents
- Methodology
- Timetable
- Assessment

These nine components are listed in a coherent and cohesive order and are interrelated on the basis of a cause and effect relationship (idem, 121).

As regards the context, Coonan considers the following variables: school type, students, parents and teachers. The identity of and the relationship and communication among these entities are fundamental for the success of the CLIL curriculum. In particular, when considering the school type, the curriculum designer needs to ponder over school level and type, available resources and the connections between the school and the surrounding political and social environment. In considering the students, attention needs to be focussed on the following factors: age, socio-cultural background, FL level and learning history, motivation and decision in taking part in the CLIL programme. In considering the parents, the question is whether to involve them or not in the decision to implement a CLIL module or take part in one. In considering the teachers, factors that need attention are: the relationship among the teachers involved in the planning and implementation of the CLIL curriculum, the support received by the head master and the teacher's competence in the FL. Of course, when the CLIL curriculum is planned and implemented outside of the formal environment, the actors to take into consideration change as do the factors involved. In particular, Coonan (2014, 26) argues that one of the main aspects of teaching in CLIL is the integration of content and language through building synergetic bridges with the language teacher. From this perspective, the language teacher might decide to focus on some of the language aspects necessary to support students' learning either before or during the CLIL experience. In fact, it must be highlighted that for CLIL to work, there needs to be a high level of communication between the parties involved.

As regards the learning situation, aspects that need to be taken into consideration are those that will most likely affect the contents and the methodology. Coonan (2012, 125; our translation) identifies the following (see Table 3):

Table 3: *Aspects related to the learning situation in CLIL as presented in Coonan (2012, 125)*

Who	<ul style="list-style-type: none"> - how many teachers are involved in the planning and implementation of the CLIL curriculum? What kind of collaboration exists between them? - Do the students have the same competence in the FL? How many are they?
What	<ul style="list-style-type: none"> - What contents? - Is the CLIL programme part of the school curriculum or is it a non-formal activity?
How long	<ul style="list-style-type: none"> - How many hours are dedicated to the CLIL programme? - Is it part of a longer project?

How	<ul style="list-style-type: none">- In what language is the CLIL programme carried on?- On the base of what principle does the language switching happen?
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As regards the aims of a CLIL curriculum, it is important to remember that they are related to the learning of both the linguistic and non-linguistic contents. Therefore, when planning a CLIL programme one has to bear in mind that its implementation is based upon the will to foster students' development of both language and content knowledge and skills. As regards the objectives of a CLIL curriculum, they fall into three categories: content, transversal, and language objectives. If in the traditional FL teaching context, the language objectives are primary, in CLIL they are secondary because they are defined on the basis of the language competence students need to access the contents. However, given that CLIL also aims at fostering students' competence in the FL, it is fundamental that a CLIL programme could also have language objectives. Finally, the transversal objectives refer to the cognitive and study skills that the students need to have developed at the end of the CLIL programme.

As regards the linguistic requirements of the CLIL curriculum, these are selected and defined in relation to the non-linguistic contents, so as to support students learning. The linguistic requirements can be defined by speaking to the content teacher, by selecting the language skills necessary to answer certain questions and fulfil certain tasks and activities and by consulting students and their work (Coonan 2012, 130). As regards the contents of the non-linguistic subject, when the CLIL programme is a non-formal activity, they need to be chosen on the basis of criteria, such as relevance, usefulness, interest and need. However, the leading criteria will always be that of feasibility, meaning that studying a non-linguistic subject requires the use of certain thinking skills, which define students' linguistic requirements (Mohan 1986). According to Mohan (*ibid.*), thinking processes can be identified as following (see Table 4):

Table 4: *Structures of Knowledge and Thinking processes as identified by Mohan (1986)*

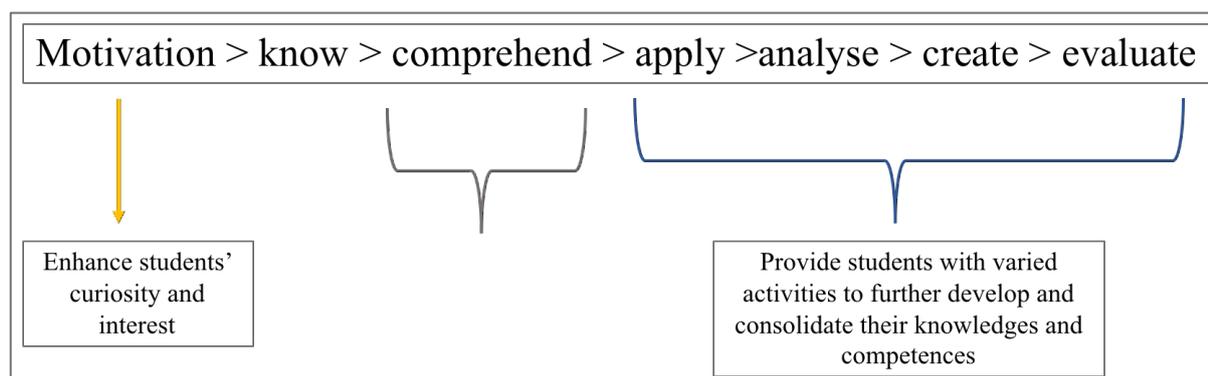
Structures of knowledge	Thinking processes
Classification	Classifying, defining, using operational definitions, understanding, applying or developing concepts, definitions or classifications
Principles	Explaining and predicting, interpreting data and drawing conclusions, formulating, testing, establishing hypotheses, understanding, applying or developing generalisations (causes, effects, means, ends, motives, norms, strategies, methods, techniques, impacts, influences, responses, results)
Evaluation	Evaluating, ranking, appreciating, judging, criticising, expressing, justifying preferences and personal opinions, understanding, analysing and deciding on goals, values, policies and evaluation criteria

Each one of the thinking processes reported in Table 4 is associated with specific language structures, which are necessary for their execution (Mohan 1986 quoted in Coonan 2012, 129). As regards the methodology, the teaching strategies and learning tasks and activities will be looked at in more details in Paragraph 4.5.3., while in this section we will pay attention to the Coonan's (2012, 132; see Figure 8) operational model, based on Bloom (1956)'s model, to plan quality CLIL. According to Bloom's Taxonomy, there are six levels of Higher Level Thinking Skills:

- Knowledge: recall or locate information
- Comprehension: understand learned facts
- Application: apply what has been learned to new situations
- Analysis: "take part" information to examine different parts
- Synthesis: create or invent something; bring together more than one idea
- Evaluation: consider evidence to support conclusion

These skills can be placed in a model as following (see Figure 8):

Figure 8: Model of thinking skills adapted from Coonan (2012, 132; our translation)



This model is built on three consequential stages. The first stage highlights the importance of preparing students by motivating them. In the second stage, students use their comprehension and knowledge skills to access the new contents. In the last stage, they use higher order skills to reinforce and consolidate the skills and knowledge they have acquired. Mohan (1986, 104) claims that students' academic competence develops through time, and they need to engage “in a gradual process from the less to the more complex” (Coonan 2014, 27; our translation).

As regards language switching, teachers can select one of the following options: *alternanza separata* and *alternanza concomitante*. The former refers to the situation in which the two languages are alternated on the base of criteria, such as subject, person, time and space. The latter refers to the situation in which the two languages are used in the same communicative context and take up different forms (skill, non-didactic function, presentation or summary, reinforce and expansion).

As regards assessment, both students and teachers should be involved in this phase. What to assess and how are two very common questions and can only be answered by taking into consideration the aims and conditions of the CLIL programme (see Paragraph 4.5.4. on Assessment in CLIL).

4.5.2. Teachers' role in CLIL

In this section, we will outline some of the strategies that teachers can use to *scaffold* students' comprehension and to promote their written/oral production.

4.5.2.1. Receptive skills in CLIL

According to Liubinienė (2009, 89), listening is a complex and vital process and does not simply involve “extracting meaning from incoming speech” but also “matching speech with the

background knowledge, i.e. what the listeners already know about the subject”. Indeed, listening comprehension is characterised by two processes:

1. *Top-down*: when learners rely on prior linguistic, encyclopaedic or cultural knowledge “in order to understand the meaning of a message” (interpretation) (ibid.)
2. *Bottom-up*: when learners construct the meaning of a message “proceeding from sounds to words to grammatical relationships in lexical meanings” (decoding) (Morley 2001 quoted in ibid.)

While the L1 listener does not have difficulties in discriminating the words in the speech, decoding the meaning of the single words and interpreting the meaning of the message through activating his/her prior knowledge, the FL learner lacks both the knowledge and competence to successfully use either one or both of the *top-down* and *bottom-up* processes (Coonan 2012, 140-141). This is why, in traditional FL teaching classrooms, teachers teach students how to use these processes efficiently (see ibid.). However, listening in the CLIL environment is made even more difficult by the fact that students need to apply these processes to learn non-linguistic contents. In outlining the difficulties encountered by students in listening comprehension in CLIL contexts, Coonan (idem, 142-143; our translation) lists three categories of factors (see Table 5):

Table 5: *Aspects which make listening comprehension difficult in CLIL (Coonan 2012, 142-143; our translation)*

External aspects
- Insufficient or low familiarity with the topic
- Lack of cultural references
- Lack of immediate context

Linguistic aspects
- Subject-specific language
- Insufficient or low familiarity with the text genre
- Text difficulty: i) easy texts (describe objects or give instructions); (ii) dynamic texts (tell stories); abstract/difficult texts (speak about ideas and beliefs)
- The text is dense of information
- The text is linguistically complex
- The text is long
- Textual coherence and cohesion

Cognitive aspects

Furthermore, when the input is oral, the following factors can also impede the comprehension of the FL (Liubiniene 2009, 90): “rate of speech, phonological features (e.g. dialects or foreign accents, different speakers), lack of visuals, background noise and occasional lapses of concentration or hearing”. Finally, CLIL students are likely to have more listening comprehension problems than traditional FL learning students in relation to the following elements (Coonan 2012, 144; our translation):

- they deal with oral texts that present a high percentage of the characteristics listed above.
- The oral input is mainly transactional (see Brown & Yule, 1983).
- Their attention is also focussed on learning the non-linguistic contents.

Since input comprehension¹⁶ is one of the fundamental aspects underpinning students’ acquisition of a FL/L2, teachers in CLIL need to embrace several strategies to facilitate students’ listening comprehension (see Ludbrook 2014). In particular, we need to point out that research on input discourse has examined “the special kind of ‘register’ that is used when speakers address language learners” (Ellis 1994, 246), identifying three different registers: caretaker talk, foreigner talk and teachers talk (see *ibid.*). These registers are different from a native-speaker talk directed to native speakers both on the formal and interactive level. On the formal level, they are characterised by “slower speech, better articulation, syntactic exemplification, and use of simple sentences” (Coonan 2012, 148). On the interactive level, they are characterised by interactional modifications, which means that the input is not formally simplified, but is communicated in a simpler way (Ellis 1994, 257). Interactional modifications can be either of a discourse management or discourse repair type. The former refer to the “attempt to simplify the discourse so as to avoid communication problems”, while the latter “occur when some form of

¹⁶ According to Krashen (1982), both the quantity and quality of the input is highly important in order for the learner to acquire the FL/L2. He calls this aspect of second language acquisition the *Input Hypothesis*, claiming that: we acquire by understanding L2 input that is comprehensible and is a bit beyond our current level of competence ($i + 1$) (Krashen 1982, 23). The comprehensibility of the input refers to the assumption that the learner acquires language only when he/she concentrates on the meaning and not on the form. Furthermore, as Krashen highlights, $i + 1$ is acquired only if the affective filter is off (see Affective Filter Hypothesis in *idem*, 29). Even though Krashen’s Second Language Acquisition Theory (SLAT) has been highly criticised for not giving enough importance to the role played by the output (White, 1987 and Gregg, 1984 quoted in Coonan 2012, 144), in a CLIL environment the comprehensibility of the input is highly pivotal in order for the student to learn the non-linguistic contents and develop his/her language competence (Coonan 2012, 145).

communication break-down has taken place (...)” (ibid.). According to Krashen (quoted in Coonan 2012, 148), it is this dimension that L2 teachers should focus upon, constantly monitoring their students’ comprehension of the input, through using discourse management and repair strategies, such as (Coonan 2012, 148-149): discourse markers, repetitions of important concepts, concrete examples, definitions, synonyms, explanations, reformulations, slower speech, question elicitation, emphasis etc. In a CLIL environment, the use of these strategies is even more important because the input is not simplified in a way that makes it less rich, language or content wise, and possible language difficulties or content misunderstandings are monitored strategically (ibid.).

As regards reading in CLIL, according to D’Annunzio (2014, 127), subject specific textbooks are difficult to read and comprehend in so far as they combine the characteristics of both scientific and educational books aimed at the dissemination of scientific contents. As Ball, Kelly, and Clegg (2015, 190) claim, “with regards to reading, the demands on learners increase year by year, in terms of text length, the amount of technical language, and the complexity of the related activities”. However, Garipova and Román (2016, 115) clearly state that “the success of reading comprehension depends on the student’s knowledge of the foreign language”, which means that if students’ language competence is low so is their ability to transfer their L1 reading knowledge to the FL. Another aspect which the two authors bring to the surface is that for students to be able to read in the FL, they need to be exposed to “challenging texts in order to develop reading proficiency and increase motivation” (ibid.). The last aspect to consider when dealing with reading in CLIL is students’ background knowledge and vocabulary knowledge. In fact, Garipova and Román (ibid.) highlight that “what readers know about a particular topic can condition how much they extract from a text” (see also Balboni 2014, 44-45).

4.5.2.2. Materials and activities to support and promote receptive skills in CLIL

As regards methodological procedures to promote and *scaffold* students’ comprehension of an/a oral/written subject-specific text, teachers should plan pre-, during- and post- reading/listening activities. In relation to the pre-listening/reading activities, Coonan (2016, 67) highlights how this phase is very important to “prepare” students, by activating their prior knowledges as regards both the content and the language, and create their expectations in relation to what will come next (see Ausebel’s concept of “advance organizer” as quoted in Brown 1987, see Coonan 2012, 157 for a list of pre-listening/reading activities).

In relation to the during-listening/reading activities, Coonan (2012, 157) emphasises the importance of guiding and supporting comprehension *in itinere*. In fact, they allow students to start a dialogue with the text (Coonan 2016, 67). In particular, Coonan (2012, 159) lists the following possible during-listening/reading activities: selecting, drawing, putting in order, taking notes, linking, building, recognising and identifying, deleting, etc (see also Ball, Kelly, and Clegg 2015, 193-196 for a list of listening activities).

In relation to the post-listening activities, they are necessary as to check students' comprehension (Coonan 2016, 67). These activities aim at closing the cycle on the input that has been learnt as well as to prepare students to apply it in a new context (*ibid.*).

4.5.2.3. Productive skills in CLIL

A wide range of Second Language Acquisition (henceforth SLA) research has concentrated on how to get students to talk the L2/ FL in formal teaching situations, claiming that their oral output plays a pivotal role in their acquisition of the L2/FL (Coonan 2008, 16). Indeed, according to Swain (2000, 99), “output pushes learners to process language more deeply – with more mental effort – than does input”, because when they speak they do something, they create “linguistic form and meaning, and in so doing, they discover what they can and cannot do”, positively stretching their interlanguage. Swain (1988 quoted in Lyster 2007, 71) well explains this very important function of output in what he calls the Output Hypothesis¹⁷, which affirms that learning/acquisition may occur through producing either spoken or written language (Swain 1988 quoted in Lyster 2007, 71).

In consideration of the importance of oral production for the acquisition and competence development of the FL (Coonan 2008, 16), it is thus very important that students enrolled in a CLIL programme are provided with quantitative and qualitative opportunities to speak the FL. As Menegale (2008a, 106) points out, CLIL represents an ideal contest for students' natural use of a L2/FL, which is very important in building up their motivation towards learning that language. The reason is that in a CLIL lesson “learning focus is on content and the FL is used merely used to learn about that content”, thus providing students with “meaningful contexts through which

¹⁷ In defining the Output Hypothesis, Swain (1988 quoted in Lyster 2007, 71) attributes the following roles to the output:

- output pushes learners to notice what they do not know or know only partially.
- Output has a metalinguistic function that enables learners to use language in order to reflect on language.
- Learners use output as a way of testing hypotheses about new language forms and structures.
- Output is a means for learners to develop fluency in the L2/FL.

their language skills are naturally promoted” (ibid.). Nevertheless, as Coonan (2008) claims, the promotion of students’ oral production in the FL in CLIL classrooms is not problem-free. Indeed, she (idem, 16) highlights that difficulties in getting students to speak are both related to the intrinsic characteristics of the CLIL environment and to more general ones of the traditional FL teaching environment. As regards the former, the CLIL context is inherently difficult because “it requires the student to carry out higher-order thinking processes in the L2 on new, unfamiliar content and in unfamiliar way”, resulting in either the failure to successfully complete the higher-order cognitive processes or to pay attention to the form of the FL (idem, 18). As regards the latter, more general difficulties in promoting students’ speaking in the FL are related to the:

- organisation of the students in the classroom.
- Reluctance on the part of the teacher to allow interaction unless of the ‘question and answer type’.
- Absence of the types of activities that allow for and effectively stimulate oral communication and interaction.

In her study on the quality and quantity of students’ oral production in the FL in five different upper secondary schools in Italy, Coonan (ibid.; our translation) comes to the conclusion that, in order for students to speak in the CLIL lesson, as so to develop their competence in the FL, the teaching style needs to include the following features:

- greater provision for pair/group work, through which students can produce language, focus on form and negotiate meaning.
- Greater focus on form by the teacher.
- Greater attention to pronunciation of specialist vocabulary.
- Provide language structures or get pupils to identify them themselves, prior to the group/pair task for potential use during the task.

From the perspective of the current piece of research, the first of these teaching style features is the most interesting one, because it highlights the need of teachers to integrate the teacher-fronted lesson with student-centred learning. According to Coonan (2012, 167; our translation), this integration “needs to be supported in different ways: types of question, interaction and learning activities” (see Paragraph 4.5.2.4.).

As regards writing in CLIL, Clegg (2002 quoted in Ball, Kelly, and Clegg 2015, 159) claim that:

Unlike talk, in which concepts soon ‘fly away’, writing allows us to hold incomplete concepts, so that we can operate on them through modifications in written language, and push the refinement process much further than we can through talk. So writing is par excellence a thinking process. And teachers need to guide their learners to become experts in the process of writing and thinking in their subject. This means that content teachers need to understand the organisation of written discourse and the cognitive value of learners organising their ideas in writing, and offer their students opportunities to practice this in the classroom.

In fact, Llinares and Dovey (2007,126) highlight that the “language of the spoken classroom is different from that of writing, and both modes are necessary for the learning/evaluation cycle”. When promoting students’ writing, teachers need to carefully think about the genres and text types, which are linked to their subject, and provide students with activities that “move from less formal to more formal structured writing” (see Ball, Kelly, and Clegg 2015, 159; see idem, 159-171 for examples of writing frames and activities).

4.5.2.4.Question types: purpose, form and cognitive complexity

Despite the general idea that a large amount of lesson time should be student-learning focussed, the teacher-fronted mode is still the most commonly used (Menegale 2008a, 107):

- at the beginning of a lesson: the teacher introduces new content and/or reviews what has already been done.
- During the lesson: the teacher explains problematic concepts or clarifies a request or complex activity.
- At the end of the lesson: the teacher sums up the new content studied and/or gives feedback.

Even though this kind of teaching has positive aspects (see Menegale 2008a, 107), students are not motivated to participate if they are only asked closed questions (idem, 108). Indeed, these types of question do not promote discussion and “students are completely passive and often inhibited when answering, scared of making a mistake” (ibid.). As Menegale underlines, “good teaching depends exactly on good questioning” (Degarmo quoted in Menegale 2008a, 108). It is

undeniable that asking open questions to students means to promote their active role during the lesson, through collaborating in discussing topics, developing new ideas and negotiating towards a solution (ibid.). It is very important to stress that questions respond to different aims and need to be used accordingly (idem, 109). In particular, if the lesson is about presenting new contents, questions are necessary “to find out what students already know about it in order to avoid repetition and deal with the content at the right level” (ibid.). On the other hand, questions can also be used to revise a topic, helping students reinforce it, or to attract students’ attention, “by stimulating their thinking and raise their consciousness about the topic and encouraging discussion as a result” (ibid.). Depending on the purpose, form and cognitive complexities, questions can be classified under different labels.

As regards the purpose, questions can be divided into (idem, 110; Dalton-Puffer 2006, 191):

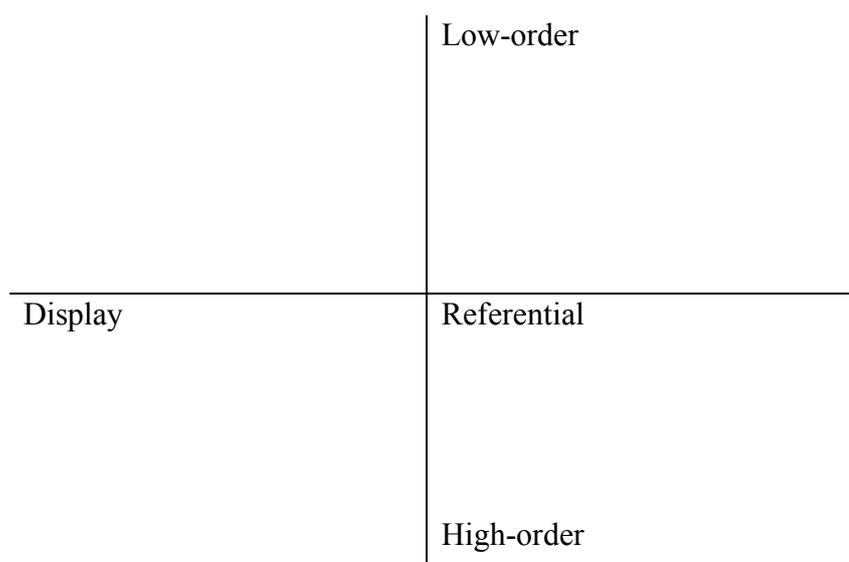
1. *Display* questions: the teacher already knows the answer and wants to test the student’s knowledge and understanding. These questions are also called “didactic questions” (Nunan 1989b quoted in Coonan 2012, 168).
2. *Referential* questions: the teacher does not know the answer and is genuinely interested “in hearing the students’ responses” (Menegale 2008a, 110). These questions originate from a “an information gap” (Coonan 2012, 168; Our translation) and encourage “authentic language production” (Menegale 2008a, 110).

According to Brock (quoted in Coonan 2012, 169), *referential* questions prompt students to answer with longer and grammatically more complex answers than do display questions. *Referential* questions are, thus, pivotal for the students’ acquisition of a FL and need to be highly used by teachers (Coonan 2012, 169).

As regards the form, questions can be classified into *yes/no* (closed) and *wh-* (open) questions. The former, also called *convergent* questions, are easier to understand and to answer, because they do not require original thought or critical reflection and the possible answers are limited (...) short and recall previously memorised information” (Menegale, 2008a: 112). On the other hand, *wh-* (open) questions, also called *divergent* questions, are more demanding (Dalton-Puffer, 2006: 192) for both the student and the teacher, because they require “a higher level of thinking, like interpreting, evaluating, inquiring, making inferences and synthesising” (ibid.). However, they encourage students to produce longer and more challenging answers in terms of linguistic encoding skills (ibid.), thus representing a great tool to promote students’ speaking competence.

Finally, as regards the cognitive complexity, questions can be catalogued into *low order* and *high order*. While the former require the student to simply repeat facts and notions, the latter provide him/her with an opportunity to use notions “in cognitive-linguistic activities of analysis, evaluation, problem-solving etc.” (Coonan, 2012: 169, our translation; see also Menegale 2008a, 111). The following quadrant can help in situating the questions in terms of both purpose and cognitive complexity (see Figure 9):

Figure 9: *Quadrant of questions’ cognitive complexity (Coonan 2012, 170)*



It is important to point out that, as Menegale (2008a, 112) highlights, *display* questions are only *convergent (high- or low-order)*, whereas *referential* questions can either be *convergent* or *divergent (high- or low-order)*.

4.5.3. Students’ role in CLIL

As regards students’ active role in CLIL, in this section we will focus on Cooperative and Task-Based Learning.

According to Cohen (quoted in Guazzieri 2008, 84), Cooperative Learning (henceforth CL) can be defined as:

(...) any type of small group work where students can take part in accomplishing a collective task, which has been assigned by a teacher, but not carried out under the teacher’s direct supervision.

The benefit of adopting a CL approach is both quantitative and qualitative (Coonan 2012, 174). As regards the quantity of students' interaction in CL, students, working into groups or pairs, are all simultaneously and actively engaged in solving a task (Coonan 2012, 174). At the same time, in terms of quality of students' interaction, adopting a CL approach means that students have to negotiate the meaning of the message and, thus, plan their output, developing their dialogic competence in the FL (idem, 174). Nevertheless, the success or failure of adopting a CL approach, and the resulting interaction among the students, depends on how the types of tasks are planned and implemented in the CLIL context.

As regards the Task-Based Methodology, task design represents a backbone of CLIL approach and will be discussed in the next section. According to Coonan (idem, 178), the activities that teachers plan and use to promote students' competence in the FL are the "building blocks" of learning. Indeed, it is generally accepted that the student learns what the activity leads him/her to do, both in terms of acquiring new information (i.e. facts, concepts.) and practicing operations (i.e. memorising, classifying; Coyle 1983 quoted in *ibid.*). In language pedagogy, a distinction is usually made among exercise, activity and task. The term exercise refers to "an activity that focuses on form, is elaborated for purely linguistic considerations with the primary intention of getting the learner to 'learn' the forms" and is usually completed individually (Coonan 2008, 20). On the other hand, an activity is more meaningful, because it focuses on communicating, both socially and pragmatically, with the language and usually involves more than one person (Coonan 2012, 179). However, the primary objective of an activity is still linguistic (*ibid.*). While exercises and activities have a discrete focus, only concentrating on a language skill or a discrete linguistic form, tasks "offer opportunities for holistic language use" (Coonan 2008, 17). According to Ellis (2003,16), a task can be defined as:

(...) a workplan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate propositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their own linguistic resources, although the design of the task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills and also various cognitive processes.

Several task designs have been proposed through the years (see Ellis 2003, 243), but they all have in common three stages. The following model is an adaptation from Willis (1996, 38):

- *Pre-task*: in this phase, the teacher explores the topic with the class, helps students to understand instructions and prepare, and activates students' topic related words and phrases.
- *Task-cycle*: *Task* – students do the task in pairs or small groups while teacher monitors; *Planning* – students prepare to report to the whole class (oral and written) how they did the task, and/or what they decided/discovered; *Report* – some groups present their reports to the class, or exchange written reports and compare results.
- *Post-task*: in this phase, the teacher focuses on the language students used in the other two stages.

What is most important about this model is its flexibility. Indeed, according to Willis (1996, 41), “there are many ways in which the components within the framework can be weighted differently and adapted to suit learners' needs”. Depending on the complexity and duration of the task and the more or less familiarity with the topic, one lesson could allocate two or more cycles or, *viceversa*, the framework could be split in two lessons (*ibid.*). Also, if there is no time for the *focus on form* of the *Post-task*, this could “be prepared for homework, and reviewed during the next lesson” (41). Different authors (see Prabhu 1987; Willis 1996) have classified tasks in different types according to the cognitive operations they involve. In particular, Doyle (1983 quoted in Coonan 2008, 56) identifies four types of tasks (*memory tasks, procedural or routine tasks, comprehension or understanding tasks, and opinion tasks*), while Prabhu (quoted in Coonan 2008, 56) refers to three types (*reason-gap, opinion-gap, and information-gap*). What is important to keep in mind is that to ensure quality in CLIL units, students need to be provided with tasks, which focus on different kinds of inputs and develops different kinds of lower and higher thinking skills.

4.5.4. Assessment in CLIL

The theme of assessment¹⁸ in CLIL is still very debated among researchers, and practitioners. As Serragiotto (2014c, 71) claims, in CLIL “assessment, which is already complex¹⁹ in itself, becomes even more complex because we need to assess both the contents of the non-linguistic subject, and the FL”. In fact, Coyle, Hood, and Marsh (2010, 115) highlight that CLIL requires the exploration of “alternatives to standard testing”. Simply asking “shall we assess the language or the content or both?” is not enough, as CLIL also aims at developing students’ cultural awareness, empathy, group work, and other transversal skills.

In the light of the abovementioned context, Serragiotto (2014b, 2014c) argues that assessment in CLIL should be seen as consisting of three levels of action on the part of the teacher:

- diversified instruments of summative assessment, which take into consideration all the learning objectives: content, language, and transversal.
- Diversified instruments of formative assessment, which takes into consideration a view of learning as a process, and not just as a product.
- Use of self-assessment to promote students’ active engagement in their own learning, so as to increase their awareness as regards their weaknesses and strengths (see Bier 2018, 80).

According to Short (1993, 633), the business sector has long called on education to improve its strategies to assess students’ learning through adopting more authentic assessment (for example by requiring students to conduct tasks that mirror the use of the concept or operation or manipulative, such as microscopes, geoboards or fraction bars). Short (*idem*) proposes a framework, in which alternative assessment formats are reported with the aim of distinguishing the aspects related to the different dimensions involved in CLIL learning (i.e. language, content, and transversal). Students might be asked to write a report and/or a project, to conduct interviews, or to perform a task. All of these formats allow teachers to evaluate both students’ learning of concepts and procedures and their attitudes towards the discipline (see Serragiotto 2014c, 74). Fundamental in CLIL is also the design of a rubric (Short 1993), which gives both teachers and

¹⁸ Coyle, Hood, and Marsh (2010, 112) distinguish between *summative* and *formative* assessment. While the former is associated with “testing” in a formal context, the latter is more a diagnostic of how students are progressing during the course/unit/module, and helps teachers spot and intervene on students’ difficulties.

¹⁹ See Short (1993) for a discussion on the importance of assessment and on the need to create types of assessment that are specific to language and content integrated learning contexts.

students specific indicators which will help them measure students' cognitive, intercultural, social, and affective gains (among the others), depending on the objectives of the unit/module. As Short (*idem*, 633) claims, we need to bear in mind that however we decide to assess, it is important that assessment “reflects actual classroom practices” and is not a one-time standardised exam. In CLIL, this is particularly important as the focus is on the learning process as much as on the product (see Serragiotto 2017 for a more up to date discussion of assessment in CLIL in the Italian context).

5. Language learning and teaching in the museum

In Chapter 2, we outlined the main findings in relation to the affordances for FL learning of different learning contexts (both informal and non-formal). In this chapter, we aim to focus our attention on the literature that has investigated the benefits of museum learning for L2/FL learners. However, we need to point out that there have been few studies that have focused on L2 learning in the context of museums (see Clarke 2013, 4), and even fewer studies have sought to understand the benefits of museums on FL learners, especially when the CLIL methodology is applied. Thus, in Paragraph 5.1., we will outline the findings of studies on L2 learning in the museum, while in Paragraph 5.2., we will concentrate on the literature on FL learning in the museum. Finally, in Paragraph 5.3. we will take a closer look at CLIL learning in the museum, through reporting some practical examples implemented in Italian museums, and outlining the findings of a study previously conducted by the author of this thesis (Fazzi 2014).

5.1. Research on L2 learning in the museum

According to Rohmann (2013, 150), while formal learning is text-based, learning in the museum is “holistic, involving both cognitive and emotional domains, and, in the end personal, because it is based on a subjective access to objects composed in such a way that the space gives a plenitude of meanings”. Indeed, Shoemaker (1998) highlights that developing an art based curriculum, with lessons both in class and at the local museum, has multiple cognitive and affective benefits for ESL students. Her report on a project developed at the Philadelphia Museum of Art (US), in which over 500 ESL students and 30 ESL and art teachers took part, reveals that art objects inspired even the hard to reach students to communicate in the L2 both in written and oral products, while at the same time developing their sense of community. In the same vein, Ruanglertbutr (2016) report on the impact of an ESL educational programme at the Potter Museum of Art in Melbourne (Australia) on 240 ESL students showing that through engaging with art in the museum context, students were able to use “vocabulary related to artwork meanings and content”, while also understanding “the value of cultural resources in a democratic societies” (Ruanglertbutr 2016, 18). In England, Cooker and Pemberton (2010) found that when museum worksheets are designed through balancing ESL and museum learning pedagogies, they can be successful tools to enhance the museum visit of ESL visitors. In particular, they followed these criteria in constructing the materials to use in the museums in the Lincolnshire area (idem, 90):

- creative materials which allow the user to contribute their favourite/most important elements of the museum visit.
- Materials which are not “passive” worksheets but give the user an opportunity to add their own views.
- Authenticity in terms of text and task.
- Materials which allow for ambiguity in the interaction to reflect everyday user experiences.
- Materials which make explicit the links with the English for Speakers of Other Languages (henceforth ESOL) core curriculum.

Another interesting study is the one conducted by Clarke (2013) in Scotland on a group of ESOL learners visiting the City of Edinburgh Council Museums and Galleries. Clarke (idem) trialed a set of ESOL materials on six participants, and conducted a micro-analysis of their talk in-interaction in the museum. While her focus was on understanding how visiting museums as part of an ESOL programme affected migrants’ identity construction and feeling of social conclusion, she also found that museums can help “foster increasing confidence and competence in the target language alongside feelings of inclusion”(idem, 4).

5.2. Research on FL learning in the museum

Turning to a closer inspection on FL learning in the museum, Diaz (2016) presents a project that was implemented at Dickinson College in the United States to supplement its FL curriculum through incorporating visits to the art museum on campus. Students involved in the project claimed that everyone felt engaged and active in the group discussions, as “the art object was used as a point of departure”, and their “desire to communicate a message shifted their focus” from how to say something to what to say, reducing their anxiety and inhibitions to communicate (Diaz 2016, 444). According to the university professors involved in the project, “transporting the classroom to the art gallery allows students to have a real world opportunity to use the target language and apply what they have learned in the classroom” (Diaz 2016, 444). Indeed, as Wilson (2012, 4) claims, when taking part in a FL museum learning experience, “students use the language both within new and varied settings and for their own enjoyment and enrichment” (Wilson 2012, 14). In Germany, Sederberg (2013) used museum learning as a component of a Content-based Instruction unit with German university students. Her reflection on students’ engagement and artefacts production during the course demonstrates that promoting students’

engagement with primary sources linked to the FL can have a positive impact on both their intercultural competence, and on their attitudes towards learning the language.

To our knowledge, only Charalampidi et al. (2017) report on a CLIL module with lessons both at school and at the museum, but their investigation only concentrates on the potential of using CLIL in the context of heritage language learning (i.e. Greek), without looking at the differences between in- and out-of-school CLIL.

5.3. CLIL learning in the museum: an Italian phenomenon?

The introduction of CLIL in the learning provisions of museums is certainly an Italian phenomenon²⁰. In fact, the interest on CLIL from both teachers and national bodies has been so strong as to impact other educational providers in Italy, such as museums, always committed to aligning their educational provision to the school curriculum and its changes (see Paragraph 3.8.). In an attempt to prove the veracity of this statement, we administered an online questionnaire to museums across Italy in 2016. The questionnaire aimed at (i) understanding the motivations behind the provision of museum learning programmes through a foreign language and (ii) exploring their aims, contents and methodology. In answering to the question “Why did you decide to offer an educational programme through a foreign language” in our questionnaire, two respondents said:

In Alto Adige our community is bilingual – and increasingly multilingual. The everyday reality of everyone in Bozen is multilingual. Especially in the educational system, in which teaching is delivered more and more through the CLIL methodology. As our collection has a selection of art and language artworks, we decided to start from there. (Museion, Museum of Contemporary Art of Bozen; our translation)

We have responded to the inclusion of CLIL in the school curriculum and we thought it was indispensable for us to adapt our educational provision. (Associazione Didattica Museale, Milano; our translation)²¹

²⁰ However, we recently became aware that other museums across Europe are developing CLIL museum programmes, but they are in no way comparable to the success and diffusion that they are having across Italian museums.

²¹ This section was already published in Fazzi (2018, 520-512).

This is one of the reasons why, since 2010, museums in Italy have started offering CLIL learning experiences aimed at developing both students’ content (i.e. art, science, history) and FL (English, Spanish, French, German) knowledge and skills. We need to point out that these programmes are becoming more and more popular in Italy as they seem to offer an opportunity for both teachers and students to experiment with the CLIL methodology in an out-of-school context.

5.3.1. Some examples of CLIL museum programmes

We report here five examples of CLIL museum programmes implemented in museums across Italy. The description of the programmes were provided by the museums themselves, when responding to the online questionnaire administered, a first time, in 2016 and, a second time, in 2018 (see Table; our translation):

Table 6: *Examples of CLIL museum programmes in Italy*

Museum	Programme description
<i>Museo Maffeiano (Verona)</i>	The programme is in the format of a workshop, and is aimed at students from the 2 nd year of primary school until the 2 nd year of low secondary school.
<i>Museo storico italiano della Guerra (Trento)</i>	“Life in the trenches”. The visit lasts 1:45 hour in the galleries of the museum, which is dedicated to the experience of soldiers in First World War. The visit is entirely delivered in English. Students are given worksheets with: extracts from the soldiers’ diaries, which they read and commented all together, photographs, which they are asked to describe and compare with the materials exhibited, a map and a small glossary. The programme is aimed at the 5 th and final year of upper secondary schools, and has been implemented this year (2018) thanks to the help of an English teacher. In the last years, it was simply a guided tour delivered in English.
<i>Villa Carlotta (Como)</i>	The aim of the programme is the learning of subject-specific vocabulary (art or science) and the promotion of simple interactional

skills (wh-questions, meet and greet, asking/giving directions, welcoming people). For 5 years, we have offered schools a package of “lessons”, in which students come to the museum and learn about the disciplinary contents, experiment with English and learn how to use the objects to interpret the contents with other visitors, and then come a second time to the museum to become active facilitators of the museum/botanical garden contents with other visitors

Museo degli usi e costume della Gente trentina (Trento province) The programme focuses on the theme of the four seasons. Last year, we implemented two different programmes aimed at primary school students, and designed by young people who had a good language level, and were working at the museum as part of the Civic services National Programme. The first programme is in English, and is called “Hands on! Exploring the sense of touch”. It aims at engaging pupils through a ludic and collaborative approach: they learn through experimenting, touching, and acting on objects. The first part in English in the museum is followed by a practical workshop, in which they produce an object in felt through manipulating wool (2:20 hours). The second programme is in German, and is called "Endlich Fruhling. Ein Museum, vier Jahreszeiten". Students revise the vocabulary linked to Spring. After the visit in the gallery, students participate in a workshop, in which they learn about the seasons cycle, and the concept of time in the agricultural world, as well as some wild animals. During the workshop, they pain eggs with natural colours (2:30 hours).

Museo Galileo (Firenze) The activity in English is offered to Italian students to increase their English vocabulary.

5.3.2. Issues in designing and delivering CLIL in the museum

In evaluating a CLIL museum programme in Northern Italy, Fazzi (2014)²² pointed out that there is an array of factors that need to be taken into consideration when planning and delivering CLIL in the museum context. For instance, in many cases, teachers and museum educators were not on the same page in terms of objectives, contents and even awareness of students' FL and subject-specific competences. Results of the study suggested that there was not a shared and agreed definition of CLIL and the tasks suffered sometimes of a focus on form rather than on meaning/content.

The lack of communication, on many levels, together with issues related to the specificity of the museum context, resulted in limited engagement on the part of the students participating in the museum visit. Problems were also identified as regards the contents, making it all the more clear that to be successful a museum visit has to be linked to the school curriculum (Fazzi 2014, 115). Indeed, according to the author, studies on museum-school collaboration have widely shown that school groups “are unlikely to make much use of museums unless their provision relate fairly closely to the areas that have been studied” (Hooper-Greenhill 1994c, 312). Also, the ‘curriculum fit’ effect (see Anderson, Kisiel, Storcksdieck 2006, 379) assures that students integrate their formal knowledge and competences and allows them to make valuable connections.

In terms of methodology, two elements stood out quite strongly: the need for a well structured school-museum collaboration and the necessity of creating a museum curriculum based on task-based methodology (see Coonan 2008, 54). In particular, the discussion of the data showed that what was always missing was the creation of tasks which complexity matched students' language and cognitive abilities.

Fazzi (2014) also highlighted how, in some cases, students were not provided with enough scaffolding. Indeed, she claimed that when considering that participating in a CLIL museum visit requires students to recognise and engage with art contents (visual, oral and written) through carrying out cognitive operations in a FL, careful designing and presentation of tasks, as well as different scaffolding strategies, is mandatory.

²² This section was already published in Fazzi (2018, 520-512).

PART 2

The current research

6. The CLIL museum programmes (Foundation Civic Museums of Venice)

In this chapter, we will give a full detailed description of the steps that were taken in designing the CLIL museum programmes at the Foundation Civic Museums of Venice, and the changes that were made to the *activity books* and *worksheets* during the three year project (Paragraph 6.1.). Thus, in Paragraph 6.2., we will outline the lesson plans of the CLIL museum programmes, giving a full description of the final version of the *activity books* and worksheets (see Appendix A for the Pdf. versions of both). Finally, in Paragraph 6.3., we will give an overview of how the programmes were implemented and the number and distribution of students participating in the programmes.

Even though our research focus is on upper secondary school students, we will also outline here the versions developed for the lower secondary students. We do this, because in answering to Research Question 1, the museum staff and the Researcher-practitioner also drew their reflections and observations from the experience with this target group.

6.1. Development of the CLIL museum programmes

In this paragraph we will present the steps that were taken to develop the CLIL museum programmes at *Ca' Rezzonico*, *Ca' Pesaro*, and the *Natural History Museum* of Venice.

6.1.1. The CLIL museum art programmes at *Ca' Pesaro* and *Ca' Rezzonico*

In November 2015, the Researcher-practitioner met for the first time with the Education Director of the Civic Museums of Venice (for a detailed profile of both participants see Paragraph 8.5.). During this meeting, we explored and discussed the dynamics and issues related both to CLIL in the Italian school system and to its application in the museum context. At that time, the Civic Museums of Venice had just started offering a museum learning programme through English, which, according to their website, used the principles of CLIL. Unfortunately, after a first trial with a low secondary school group, the educator that had been chosen to deliver the programme felt he was not able to deal with the demands of this target/learning context, leaving the Education Director to find a replacement and, more important, to find an appropriate methodology. During our following meetings, we realised that the issues encountered during the first trial were similar

by those identified in Fazzi (2014), and that we needed to work on integrating CLIL and museum based pedagogy. In so doing, we formed a team designing/teaching, in which the Education Director shared her expertise in relation to the art museum contents and the museum context, while the Researcher-practitioner contributed with her expertise in relation to the CLIL methodology. It was also decided that the Researcher-practitioner would be the museum educator responsible for the delivery of the CLIL museum art programmes. In the first year, two CLIL museum art programmes aimed at the integrated learning of art and English at *Ca' Pesaro* (Museum of Contemporary and Modern Art) and *Ca' Rezzonico* (Museum of 18th Century Venice) were designed, and named “*Looking for the right words: Museums as opportunity for language practice*”. These programmes were aimed at both low and upper secondary schools, but we devised two different lesson plans and *activity books* (worksheets) to gather for the different cognitive and linguistic needs of the two target audiences (see Paragraphs 6.2.1. for the lesson plans of the CLIL museum programmes). We started by reviewing the *activity books* already in use for the museum learning programmes running in the same two museums (“Eyes on me! The interplay of imagination, dreams and reality: different visions” at *Ca' Rezzonico* and “Strange things and magnificent stories: artists in their own words” at *Ca' Pesaro*, both aimed at primary and low secondary students that were native speakers of English).

We came to the conclusion that both the learning aims and the theme/contents of such programmes were suitable for the upper secondary students, but that some of the activities had to be modified taking into consideration both the different language level and the age of the new target audiences. We also reduced the number of rooms/activities and contents of the original programmes. For the *Ca' Rezzonico* programme, for example, we initially decided to avoid talking about the fresco technique, and only concentrated on exploring the meaning behind the allegory of *Gianbattista Tiepolo's* fresco in the Nuptial Allegory room. On the other hand, we thought that some of the activities could also work for the new target audiences and we left them the way they were. As for the low secondary *activity book*, while the learning aims and theme remained the same as those of the upper secondary students, we had to remodel the learning objectives, contents and activities.

In both low and upper secondary *activity books* we included a section with the classroom language that would support students' interaction with the museum educator during the workshop (see Image 1):

Image 1: Classroom language as introduced in the first version of the activity books for the *Looking for the right words* programmes



In December 2015, we piloted the *activity book* for low secondary students on a third year low secondary group and were satisfied by students' reactions and level of engagement. The English language teacher accompanying the group also gave a positive feedback.

The low and upper secondary *activity books* of both the *Ca' Rezzonico* and *Ca' Pesaro* programmes, and the methodology used to facilitate students' engagement with the museum art contents through English went through cyclic revisions. In particular, the Education Director and the Researcher-Practitioner shared their perceptions as regards the positive and critical aspects of the programmes via e-mail, phone, and in person meetings during the entire duration of the research project. The Researcher-practitioner also kept a journal to keep track of her observations as regards students and teachers' responses to the museum activities and reflections on her teaching practice.

The Education Director gave ongoing support to the Researcher-practitioner, helping her, when possible, to fill the gaps of her knowledge of art contents and museum teaching skills. On the other hand, the Researcher-practitioner informed the Education Director of how students and teachers were responding to the programmes and offered suggestions on how to improve and/or modify the activities.

At the end of the second academic year (2016/2017), we also devised a glossary of art specific vocabulary and structures, which was added to the *activity books*, and a document aimed at supporting teachers in integrating the CLIL museum workshop in the school curriculum. This document included the aims, contents, and methodology of the programme to be sent to teachers after they booked the workshop. However, teachers were also offered phone and e-mail support to prepare for the museum trip throughout the three years. Finally, in the last academic year, (2017/2018), we designed the final versions of the *activity books* as presented in Appendix A. We also trained another museum educator, Museum Educator 2, who would share with the Researcher-practitioner the delivery of the *Looking for the right words* programmes to both lower and upper secondary students. We also developed another CLIL museum interdisciplinary programme running at the *Doge's Palace* in Venice and aimed at exploring its architecture through the eyes and writings of an English historian, John Ruskin. However, this CLIL museum programme will not be described here.

6.1.2. The CLIL museum science programme at the *Natural History Museum* of Venice

In September 2016, the research project was extended to the *Natural History Museum* of Venice (MSN) and to the two MSN Educators, who are responsible for the planning of all the educational programmes the museum offers (for a detailed profile of both participants see Paragraph 8.5.). The two MSN Educators work in close collaboration with the Education Director, but are under the direct supervision of the MSN Director (for a detailed profile of the participant see Paragraph 8.5.).

Before we met, the *Natural History Museum* was already running an educational programme through English in collaboration with an external educational coop enterprise. However, the MSN Educators were not satisfied as the programme did not respond to their educational aims. In particular, the programme, which consisted of a treasure hunt in the museum halls, only focused on the learning of scientific vocabulary, and did not meet the MSN educators' expectations in relation to the learning of scientific contents. Hence, during the first meeting, the Researcher-Practitioner and the MSN Educators discussed the reasons behind the unsuccessful results of the previous programme, and explored possible solutions.

We took the following steps to develop a CLIL museum science programme that would integrate science and FL learning in a way that would respond to both the museum and the teachers' needs and expectations. First, the MSN Educators took part in a short CLIL training course (September

2016) aimed at school teachers and organised by the Ca' Foscari University of Venice. The MSN Director was in favour of this action and supported both Educators' registration and participation in the course. The aim was for them to (i) understand the pedagogical principles underpinning the CLIL methodology, and (ii) get familiar with the requirements set by the Ministry of Education in terms of CLIL delivery in the Italian school system. Thus, we discussed the profile of the museum educator that would deliver the programme. Despite the preference for an educator with a strong scientific background, we decided that high competences in the FL (English) and in the CLIL methodology would be preferred in this case. Thus, the Researcher-practitioner was again chosen to deliver the programme. Given her lack of a scientific background, we again opted for a 'team designing/teaching': the MSN Educators trained the Researcher-practitioner in the science contents and inquiry-based pedagogy of the programme; on the other hand, the Researcher-practitioner offered her expertise in the CLIL methodology. In order to align the CLIL museum science programme to the upper secondary school curriculum, we consulted a Biology teacher, who had been trained in the CLIL methodology. Together we decided that the theme of the CLIL museum workshop would be that of "Animal classification: homologous and analogous structures", which would fit the science curriculum of first and second year upper secondary students. Then, we adapted the worksheets already developed for another programme (see Biondi et al. 2013), based on the IBSE methodology, and we used it as a springboard for further changes and developments. We reduced the number of specimens to observe during the museum visit, and translated the worksheets appropriately for the students' age and language level. We also devised a glossary, complete of words and images, that would support students' use and learning of scientific vocabulary and of classroom language during the museum visit. This glossary was produced with the help of two upper secondary students who, at the time, were interning at the museum as part of the *Alternanza scuola-lavoro*²³ project.

Other materials consisted of a map of the museum halls, pencils and crayons, necessary to complete the activities (for a full description of the lesson plan and worksheets see Paragraph 6.2.1.). We worked on the planning of the programme for 5 months. The MSN Educators set the content objectives, while the Researcher-practitioner defined the language objectives and gave

²³ Together with the mandatory introduction of CLIL, the *Alternanza scuola-lavoro* project is the other revolution that has interested the Italian educational system in the last few years. According to the Good School reform (Law 107, 13 July 2015), the *Alternanza scuola-lavoro* is a work experience that students complete in their third to fifth year of upper secondary education, through alternating work and study periods. They have to complete at least 200 hour work experience at one of the institutions approved by the Ministry of Education and the school (see the official website of the Veneto Region for further details: <http://www.regione.veneto.it/web/cultura/alternanza-scuola-lavoro>).

methodological support on how to balance the cognitive and linguistic load of the programme. In addition, the Researcher-practitioner offered technical linguistic support. Moreover, we devised a document with the aims, contents, and methodology of the programme to be sent to teachers after they booked a museum visit, and offered them further phone and e-mail support to prepare for the museum visit.

We piloted the programme with a first year upper secondary school group in January 2017. An online log book, recording every meeting, was kept and shared on a Google Drive folder, so that every participant had the same information and could add notes and reflections to what had been discussed during the meetings. The MSN educators offered ongoing support to the Researcher-Practitioner throughout the two academic years (2016/2017-2017/2018). They helped her to understand the science contents and how to convey them in a correct way. In so doing, they devised written summaries of the contents of the visit, cyclically observed the museum visits delivered by the Researcher-Practitioner, and met with her regularly to discuss the issues arising in terms of contents and science communication methodology. On the other hand, the Researcher-practitioner informed both the MSN Educators and the MSN Director of how students and teachers were responding to the programme and offered suggestions on how to improve and/or modify the activities according to the CLIL methodology.

In particular, during the first few visits, two issues arose quite strongly. The first one related to the fact that students tended to complete the listening activity provided in Worksheet 1 (see Paragraph 6.2.2.; Appendix A) without looking at the specimen. They would simply enter the room, complete the activity, and move on without looking at the specimen. It was thus decided to add a short question asking students to write the scientific name of the specimen or its cabinet so as to encourage them to observe the specimen before moving to the following one. The second issue regarded the audio files necessary to complete the listening activity. Initially we decided to share them via Bluetooth. We thought about sharing them with the teachers before the visit, but we realised this was logistically difficult. Thus, it was decided that the museum educator would share the files from her mobile phone to that of one student in each working group at the beginning of the visit. However, several issues arose during the file sharing procedure, which eventually led the MSN Educators to devise specific audio guides, which could simply be distributed at the beginning of the visit and collected at the end by the museum educator. After the pilot, the team designing/teaching also realised that asking students to build the definitions of analogous and homologous structures from scratch was too difficult and time consuming. The team designing/teaching decided to use the key words used by the Researcher-practitioner to scaffold

students' production of the definition during the pilot workshop to design fill in the gap definitions. Another change that was made at the end of the academic year 2016/2017 was to add a short description of the characteristics and function of the cladogram, so that students could revise this part at school at a slower pace. In fact, as this was the last activity of the two hour workshop, students were often tired and less attentive, or in some cases, they had taken too much time in the museum galleries, and did not have time to complete this activity.

In September 2017, we collaborated at the design of another CLIL museum science programme aimed at upper secondary students, and focused on the exploration of the ecosystem of the Lagoon of Venice (*Exploring the Lagoon*). The Researcher-practitioner helped with the development of the programme, and trained two other museum educators that would be responsible for its delivery (see the profile of Museum Educator 1 in Paragraph 8.5.). However, this CLIL museum programme will not be described here.

6.2. The structure of the CLIL museum programmes

In the following paragraphs, we will outline the lesson plans for both the art and science CLIL museum programmes. In so doing, we also give a full description of the activities as presented in the final versions of both the *activity books* of the art programme and the worksheets of the science programme (see Appendix A for the .pdf versions of the *activity books* and worksheets).

6.2.1. The CLIL museum art programmes: Looking for the rights words

In the tables below (Table 7, 8, 9, and 10), we have adapted Coonan's (2012, 122) model for planning a school curriculum to illustrate the programme structure of the CLIL museum art programmes *Looking for the right words* aimed at lower and upper secondary schools at *Ca' Rezzonico* and *Ca' Pesaro*.

Table 7: Programme structure of the CLIL museum art programme at Ca' Rezzonico (lower secondary)

Context	The programme takes place at Ca' Rezzonico (Museum of XVIII Century Venice). It is specifically devised for lower secondary school students, aligning transversally to both the art and English school curricula. No specific pre- and post-visit activities are offered to support teachers' integration of the museum visit into the school curriculum
Learning situation	The programme is a non-formal activity, which lasts 2 hours. A translanguaging approach is used, with the main language of delivery being English but with a strategic use of Italian when necessary.
Aims	To offer students the opportunity to learn about the art and history of XVIII century Venice from an intercultural perspective and through the means of English in an authentic and stimulating context.
Objectives	<ul style="list-style-type: none"> - Art objectives: students are encouraged to (i) contextualise the specific aspects of the historical period within the discipline, (ii) critically observe art works and techniques, (iii) recognise some of the stylistic characteristics of the following artists: Giambattista Tiepolo, Rosalba Carriera, Canaletto and Pietro Longhi, and (iv) engaging with art in an active and critical way. - Language objectives: students are encouraged to (i) practice the art specific vocabulary and language structures (i.e. fresco, painting, it was made/painted in...by), (ii) practice the four abilities in English in the context of the art and history of the XVIII century, (iii) interact with their peers and the museum educator in a non-formal context. - Transversal objectives: students are encouraged to (i) work in groups sharing ideas and hypotheses, (ii) orient themselves in the museum, and (iii) practice thinking and problem solving skills.
Linguistic needs	A2/B1 level in the English language.
Contents	Main aspects of the art and history of the XVIII century. Both the art techniques and results are taken into consideration and explored within the specific historical period.
Methodology	<p>The programme is divided in four main stages (Welcome, Ice breaker, Task, Final remarks) described below.</p> <ul style="list-style-type: none"> - In the Welcome stage, the museum educator welcomes the school group, introduces herself, and asks general questions (<i>Where are you from? Is this your first time at the museum?</i>). The students are then asked to leave their backpacks in the cloakroom and follow the

museum educator in the workshop room. After dividing the students into groups of 3/4 people - with the help of the school teacher - the museum educator leads an **Ice breaker** (i.e. Lie detector). Both the first and second stages are important as they help create a positive atmosphere and lower students' affective filter.

- **Task** (developed through adapting Willis' (1996) *task* model as presented in Paragraph 4.5.3.):

Pre-task: in the courtyard, the museum educator explains the structure of the museum visit (learning agreement). She shows how the *activity book* is organised before handing a copy to each student. Thus, she asks students to complete a reading activity, which introduces them to the main theme and ideas of the workshop, contextualising their knowledge and activating their prior knowledge.

Task-cycle

The museum educator reminds students of the appropriate behaviour to keep in the museum galleries. Thus, students are asked to observe, describe, and critically interpret the main aspects of the art works, on view in the museum galleries, through group tasks and oral interaction with the museum educator. In particular, the following rooms and tasks are offered:

1. Nuptial Allegory Room: students have to observe Gianbattista Tiepolo's fresco "The Nuptial Allegory" and put together the pieces of the puzzle, then they complete a listening activity.
2. Pastel room: students have to look for the eye frames in the *activity book* and find the corresponding portraits by Rosalba Carriera. Then they are asked to write the title of the portraits and an adjective describing the character of the sitter.
3. Central hall: students have to locate the images in the *activity book* in the paintings in the room, and then compare Canaletto's paintings to Tiepolo's frescoes through answering the question in the *activity book*.
4. Longhi room: students have to match the dialogues in the *activity book* to Pietro Longhi's pictures in the room. Then they have to reflect on the subjects of his pictures.

Post-task: the museum educator recap the main contents of the visit; Students are asked to take a picture of their favourite art work and

	<p>prepare a presentation, on the basis of the questions provided (to be carried out at school).</p> <ul style="list-style-type: none"> - In the Final remarks stage, the museum educator praises students' English skills, while encouraging them to come back to the museum again in the future.
Timetable and Evaluation	These two components do not fit within the museum context and are not taken into consideration.

Table 8: *Programme structure of the CLIL museum art programme at Ca' Rezzonico (upper secondary)*

Context	The programme takes place at Ca' Rezzonico (Museum of XVIII Century Venice). It is specifically devised for upper secondary school students, aligning to the art school curriculum of fourth year students. However, it is also open to other grades, and English teachers are welcome to book the visit as well. No specific pre- and post-visit activities are offered to support teachers' integration of the museum visit into the school curriculum
Learning situation	The programme is a non-formal activity, which lasts 2 hours. A translanguaging approach is used, with the main language of delivery being English but with a strategic use of Italian when necessary.
Aims	To offer students the opportunity to learn about the art and history of XVIII century Venice from an intercultural perspective and through the means of English in an authentic and stimulating context.
Objectives	<ul style="list-style-type: none"> - Art objectives: students are encouraged to (i) contextualise the specific aspects of the historical period within the discipline, (ii) critically observe art works and techniques, and (iii) recognise some of the stylistic characteristics of the following artists: Giambattista Tiepolo, Rosalba Carriera, Canaletto and Pietro Longhi. - Language objectives: students are encouraged to (i) practice the art specific vocabulary and language structures (i.e. fresco, painting, it was made/painted in...by), (ii) practice the four abilities in English in the context of the art and history of the XVIII century, (iii) interact with their peers and the museum educator in a non-formal context. - Transversal objectives: students are encouraged to (i) work in groups sharing ideas and hypotheses, (ii) orient themselves in the museum, and (iii) practice thinking and problem solving skills.
Linguistic needs	A2 level in the English language.

Contents	Main aspects of the art and history of the XVIII century. Both the art techniques and results are taken into consideration and explored within the specific historical period.
Methodology	<p>The programme is divided in four main stages (Welcome, Ice breaker, Task, Final remarks) described below.</p> <ul style="list-style-type: none"> – In the Welcome stage, the museum educator welcomes the school group, introduces herself, and asks general questions (<i>Where are you from? Is this your first time at the museum?</i>). The students are then asked to leave their backpacks in the cloakroom and follow the museum educator in the workshop room. After dividing the students into groups of 3/4 people - with the help of the school teacher - the museum educator leads an Ice breaker (i.e. Lie detector). Both the first and second stages are important as they help create a positive atmosphere and lower students' affective filter. – Task (developed through adapting Willis' (1996) <i>task</i> model as presented in Paragraph 4.5.3.): <p><i>Pre-task:</i> in the courtyard, the museum educator explains the structure of the museum visit (learning agreement). She shows how the <i>activity book</i> is organised before handing a copy to each student. Thus, she asks students to work in groups on the brainstorming activity, activating their prior knowledge in relation to the XVIII century. After the feedback in plenary, she provides students with a reading activity, which introduces them to the main theme and ideas of the workshop.</p> <p><i>Task-cycle</i></p> <p>The museum educator reminds students of the appropriate behaviour to keep in the museum galleries. Thus, students are asked to observe, describe, and critically interpret the main aspects of the art works, on view in the museum galleries, through group tasks and oral interaction with the museum educator. In particular, the following rooms and tasks are offered:</p> <ol style="list-style-type: none"> 1. Ballroom: students are guided to observe and reflect on the artistic characteristics of the room, and understand the celebratory function of the frescoes in the first floor of Ca' Rezzonico.

	<ol style="list-style-type: none"> 2. Nuptial Allegory Room: students are introduced to the fresco technique, and are guided to analyse the allegory represented in Gianbattista Tiepolo’s fresco “The Nuptial Allegory” through a listening activity. Students are then asked to reflect on why it is difficult to interpret the fresco, coming to an understanding of how symbols change through history. 3. Pastel room: students have to look for the eye frames in the <i>activity book</i> and find the corresponding portraits by Rosalba Carriera. Then they are asked to write the title of the portraits and an adjective describing the character of the sitter. Thus, they are asked to reflect on the importance of the artist who, despite being a woman, was highly valued in Europe for her talent. 4. Central hall: students have to locate the images in the <i>activity book</i> in the paintings in the room, and then compare Canaletto’s paintings to Tiepolo’s frescoes through answering the question in the <i>activity book</i>. 5. Longhi room: students have to match the dialogues in the <i>activity book</i> to Pietro Longhi’s pictures in the room. Then they have to reflect on the subjects of his pictures. 6. Villa Zianigo and The Punchinello rooms: students are guided to analyse the complex symbology of Giandomenico Tiepolo’s frescoes through completing multiple choices in the activity book, and interacting with the museum educator. <p><i>Post-task:</i> the museum educator recap the main contents of the visit; Students are asked to take a picture of their favourite art work and write a short description to post on the official Facebook page of the Education Department of the Civic Museums (to be carried out at school or in their own time).</p> <ul style="list-style-type: none"> - In the Final remarks stage, the museum educator praises students’ English skills, while encouraging them to come back to the museum again in the future.
Timetable and Evaluation	These two components do not fit within the museum context and are not taken into consideration.

Table 9: Programme structure of the CLIL museum art programme at Ca' Pesaro (lower secondary)

Context	The programme takes place at Ca' Pesaro (international Gallery of Modern Art). It is specifically devised for lower secondary school students, aligning transversally to both the art and English school curricula. No specific pre- and post-visit activities are offered to support teachers' integration of the museum visit into the school curriculum
Learning situation	The programme is a non-formal activity, which lasts 2 hours. A translanguaging approach is used, with the main language of delivery being English but with a strategic use of Italian when necessary.
Aims	To offer students the opportunity to learn about XX century art from an intercultural perspective and through the means of English in an authentic and stimulating context.
Objectives	<ul style="list-style-type: none"> - Art objectives: students are encouraged to recognise, in the complex art matters of the XX century, some of the main passages between figurative and abstract art through the analysis and interpretation of the following artists' art works: Auguste Rodin, Gustav Klimt, Felice Casorati, Vasilij Kandiskij e Alexander Calder. - Language objectives: students are encouraged to (i) practice the art specific vocabulary and language structures (i.e. <i>painting, sculpture, the artwork makes me think about..</i>), (ii) practice the four abilities in English in the context of the art of the XX century, (iii) interact with their peers and the museum educator in a non-formal context. - Transversal objectives: students are encouraged to (i) work in groups sharing ideas and hypotheses, and (ii) practice thinking and problem solving skills.
Linguistic needs	A2 level in the English language.
Contents	Understanding of the passage from figurative to abstract art, through engaging with some of the masterpieces from the XIX and XX century exhibited in the museum.
Methodology	<p>The programme is divided in four main stages (Welcome, Ice breaker, Task, Final remarks) described below.</p> <ul style="list-style-type: none"> - In the Welcome stage, the museum educator welcomes the school group, introduces herself, and asks general questions (<i>Where are you from? Is this your first time at the museum?</i>). The students are

then asked to leave their backpacks in the cloakroom and follow the museum educator in the workshop room. After dividing the students into groups of 3/4 people - with the help of the school teacher - the museum educator leads an **Ice breaker** (i.e. Lie detector). Both the first and second stages are important as they help create a positive atmosphere and lower students' affective filter.

- **Task** (developed through adapting Willis' (1996) *task* model as presented in Paragraph 4.5.3.):

Pre-task: in the courtyard, the museum educator explains the structure of the museum visit (learning agreement). She shows how the *activity book* is organised before handing a copy to each student. Thus, she asks students to complete a reading activity, which introduces them to the main theme and ideas of the workshop.

Task-cycle

The museum educator reminds students of the appropriate behaviour to keep in the museum galleries. Thus, students are asked to observe, describe, and critically interpret the main aspects of the art works, on view in the museum galleries, through group tasks and oral interaction with the museum educator. In particular, the following artworks are explored:

1. Room1: students are guided to analyse August Rodin's sculpture (*The Burghers of Calais* 1889), through completing the short description on the *activity book*. Then, in groups, they need to imagine what the real story behind it is. Thus, they have to check if they were correct by listening to the story told by the museum educator. Finally, they are guided to analyse the style of the sculpture.
2. Room 3: students are guided to analyse Gustav Klimt's painting (*Judith II* 1909), through completing the short description on the *activity book*. Then, in groups, they need to imagine what the real story behind it is. Thus, they engage in a short listening activity on the subject of the painting. Finally, they are guided to analyse the style of the painting.
3. Room 4: students are guided to analyse Felice Casorati's painting (*The young maidens* 1912), and to critically reflect on the reasons behind some of its characteristics. Thus, they are asked to choose one of the words provided in the *activity book* to describe the painting and give the reason why they chose that particular one.

	<ol style="list-style-type: none"> 4. Room 9: students are guided to analyse Felice Casorati's painting (<i>Girls at Nervi</i> 1926), and to reflect on whether it is more or less realistic than the previous one. 5. Room 11: students are asked to observe Vassily Kandisky's painting (<i>White Zig Zags</i> 1922), and choose the first word that comes to their mind to describe it. Thus, they are asked to fill in the gaps of a short description focused on the style of the artist, and to discuss whether they like the painting or not, and how it makes them feel. 6. Room 11: Students are guided to analyse Alexander Calder's mobile (<i>Red, yellow, and blue gongs</i> 1951). Thus, they are asked to fill in the gaps of a short description focused on the style of the artist, and to discuss how the mobile makes them feel. Finally, they are guided in the comparison between Calder and Rodin's art works. 7. Treasure hunt: students are given clues to find one artwork in the collection. Once they find it, they need to complete its description. The first team to find the art work and complete its description wins. <p><i>Post-task:</i> the museum educator recap the main contents of the visit; Students are asked to take a picture of their favourite art work and prepare a presentation, on the basis of the questions provided (to be carried out at school).</p> <ul style="list-style-type: none"> - In the Final remarks stage, the museum educator praises students' English skills, while encouraging them to come back to the museum again in the future.
Timetable and Evaluation	These two components do not fit within the museum context and are not taken into consideration.

Table 10: Programme structure of the CLIL museum art programme at Ca' Pesaro (upper secondary)

Context	The programme takes place at Ca' Pesaro (International Gallery of Modern Art). It is specifically devised for upper secondary school students, aligning to the art curriculum of fifth year students. However, it is also open to other grades, and English teachers are welcome to book the visit as well. No specific pre- and post-visit activities are offered to support teachers' integration of the museum visit into the school curriculum.
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Learning situation	The programme is a non-formal activity, which lasts 2 hours. A translanguaging approach is used, with the main language of delivery being English but with a strategic use of Italian when necessary.
Aims	To offer students the opportunity to learn about XX century art from an intercultural perspective and through the means of English in an authentic and stimulating context.
Objectives	<ul style="list-style-type: none"> - Art objectives: students are encouraged to (i) recognise, in the complex art matters of the XX century, some of the main passages between figurative and abstract art through the analysis, description and interpretation of some of the museum masterpieces, (ii) understand the role played by museums and the events that lead to their origin, (iii) learn about the role played by patrons, through focusing on the character of Felicita Bevilacqua La Masa and on her choices as regards the selection of the artworks to be exhibited at Ca' Pesaro. - Language objectives: students are encouraged to (i) practice the art specific vocabulary and language structures (i.e. <i>painting, sculpture, the artwork makes me think about..</i>), (ii) practice the four abilities in English in the context of the art of the XX century, (iii) interact with their peers and the museum educator in a non-formal context. - Transversal objectives: students are encouraged to (i) work in groups sharing ideas and hypotheses, and (ii) engage with art in a critical and active way.
Linguistic needs	B1 level in the English language.
Contents	Understanding of the passage from figurative to abstract art, through engaging with some of the masterpieces from the XIX and XX century exhibited in the museum. Students also learn about the origins of the collection and of Ca' Pesaro as a museum space.
Methodology	<p>The programme is divided in four main stages (Welcome, Ice breaker, Task, Final remarks) described below.</p> <ul style="list-style-type: none"> - In the Welcome stage, the museum educator welcomes the school group, introduces herself, and asks general questions (<i>Where are you from? Is this your first time at the museum?</i>). The students are then asked to leave their backpacks in the cloakroom and follow the museum educator in the workshop room. After dividing the students into groups of 3/4 people - with the help of the school teacher - the museum educator leads an Ice breaker (i.e. Lie detector). Both the

first and second stages are important as they help create a positive atmosphere and lower students' affective filter.

- **Task** (developed through adapting Willis' (1996) *task* model as presented in Paragraph 8.5.3.):

Pre-task: in the courtyard, the museum educator explains the structure of the museum visit (learning agreement). She shows how the *activity book* is organised before handing a copy to each student. Thus, she asks students to complete a reading activity, which introduces them to the main theme and ideas of the workshop.

Task-cycle

The museum educator reminds students of the appropriate behaviour to keep in the museum galleries. Thus, students are asked to observe, describe, and critically interpret the main aspects of the art works, on view in the museum galleries, through group tasks and oral interaction with the museum educator. In particular, the following artworks are explored:

- Room1: in groups, students match the short descriptions in the *activity book* to the sculptures in the room, then they have to complete the biographies of the artists (Auguste Rodin, Medardo Rosso, and Adolfo Wildt), by collecting information from the labels, observing the sculptures, and using the words provided.
- Room 2: in groups, students have to come up with a definition of what a sculpture is, and to recognise the artist of the sculptures in the room (Medardo Rosso). Thus, they are asked to read the artist's definition and identify what the main feature of a sculpture is for the artist.
- Room 3: students need to put in order the jumbled pieces of the story behind Gustav Klimt's painting (*Judith II* 1909). Then they need to compare Klimt's version of *Judith* with that of Botticelli and match the descriptions to the right image. In the same room, students are asked to analyse Adolfo Wildt's sculpture (*Proud character and gentle soul* 1912), and identify an aspect that identifies its proud character and the gentle soul.
- Rooms 4 and 8: students are guided to understand the origins of Ca' Pesaro collection and the role played by Felicita Bevilacqua La Masa. Thus, students are asked to find Arturo Martini's sculptures as corresponding to the profiles sketched in the

	<p><i>activity book</i>, and to discuss which one is more or less realistic and why, and which one they like best and why.</p> <ul style="list-style-type: none"> - Room 4 and 9: students are asked to find Felice Casorati's paintings as corresponding to the profiles sketched in the <i>activity book</i>, and to discuss which one is more or less realistic and why, and which one they like best and why. - Room 10: students are asked to critically observe Emil Nolde's painting (<i>Plants in flower</i> 1909), and identify its main subject. - Room 11: students are asked to observe Vassily Kandisky's painting (<i>White Zig Zags</i> 1922), and are guided to critically analyse and interpret it through questions and short explanations. Thus, students are asked to form their opinion about Kandisky's stylistic choices and reflect on what emotion the painting communicates to them. Then, students are asked to listen to the sounds of different musical instruments, and to complete a table where they have to assign a feeling and colour to each sound. Finally, they compare their table to that of Kandisky's and learn about the relationship between art and music as theorised by the artist. - Room 13: students are asked to match the descriptions on the <i>activity book</i> to the corresponding art works in the room. - Room 14: students fill in the gaps of a short description of Leoncillo Leonardi's sculpture (<i>The Venetian Partisan Woman</i> 1954-1955). <p><i>Post-task</i>: the museum educator recap the main contents of the visit; Students are asked to take a picture of their favourite art work and write a short description to post on the official Facebook page of the Education Department of the Civic Museums (to be carried out at school or in their own time).</p> <ul style="list-style-type: none"> - In the Final remarks stage, the museum educator praises students' English skills, while encouraging them to come back to the museum again in the future.
Timetable and Evaluation	These two components do not fit within the museum context and are not taken into consideration.

6.2.2. The CLIL museum science programme: *Animal Classification*

In the table below (Table 11), we have adapted Coonan's (2012, 122) model for planning a school curriculum to illustrate the programme structure of the CLIL museum science programme on

Animal Classification running at the *Natural History Museum of Venice*, and aimed at upper secondary schools.

Table 11: *Programme structure of the CLIL museum science programme on Animal Classification*

Context	The programme takes place at the Natural History Museum of Venice. It is specifically devised for first and second year upper secondary school students, but it is open also to other school grades. The programme aligns to the science curriculum, but also English teachers can book the visit. No specific pre- and post-visit activities are offered to support teachers' integration of the museum visit into the school curriculum.
Learning situation	The programme is a non-formal activity, which lasts 2 hours. A translanguaging approach is used, with the main language of delivery being English but with a strategic use of Italian when necessary.
Aims	To offer students the opportunity to learn about animal classification through English in an authentic and stimulating context.
Objectives	<ul style="list-style-type: none"> – Science objectives: (i) to use the principles of scientific inquiry correctly; (ii) to understand the difference between homologous and analogous structures through observing the museum specimens; (iii) to identify the morphological characteristics of the animal groups; (iv) to complete a cladogram on the basis of homology. – Language objectives: (i) to learn and use scientific vocabulary related to animal classification; (ii) to develop the four language skills in English in relation to the topic of animal classification; (iii) to encourage students to interact in English with their peers and the museum educator in an authentic context; (iv) to understand instructions in English. – Transversal objectives: (i) to work in groups collaboratively, (ii) to develop observational and critical thinking skills, and (iii) to develop orientation skills through successfully using a museum map.
Linguistic needs	A2/B1 level in the English language.
Contents	Animal classification; homologous and analogous structures.
Methodology	The programme is divided in four main stages (Welcome, Ice breaker, Task, Final remarks) described below.

-
- In the **Welcome stage**, the museum educator welcomes the school group, introduces herself, and asks general questions (*Where are you from? Is this your first time at the museum?*). The students are then asked to leave their backpacks in the cloakroom and follow the museum educator in the workshop room. After dividing the students into groups of 3/4 people - with the help of the school teacher - the museum educator leads an **Ice breaker**. Both the first and second stages are important as they help create a positive atmosphere and lower students' affective filter.
 - **Task** (developed through adapting Willis' (1996) *task* model as presented in Paragraph 4.5.3.):

Pre-task: the museum educator introduces the topic and explains the aims and rules of the museum visit (learning agreement). In addition, she helps students to understand the instructions and activates students' knowledge of words and phrases related to animal classification. At the end of this stage, the museum educator distributes the materials for the first part of the *Task-cycle*.

Task-cycle

First part: self-guided session in the museum halls

In their groups, students collect information on homologous and analogous structures through autonomously engaging with specimens in the museum galleries. This is an inductive stage, as students have to derive the features that distinguish the two structures through completing a listening activity, a diagram, and a table (worksheet 1 and 2; see Appendix A). Students are provided with the a map of the museum galleries and have to look for and observe the specimens to be able to complete the worksheets. Students are also provided with materials to complete the activities: audio files for the listening activity, and crayons for the colouring activity. Students are also given a word/image glossary of scientific vocabulary.

Second part: museum educator-led session in the workshop room

Students come back to the workshop room and, together with the museum educator, correct worksheet 1 and 2, completed autonomously during the first part of the *Task-cycle*. Thus, they are asked to work on the *outputs* of the task: definitions of the two types of structures (worksheet 3) and completion of the cladogram

	<p>(worksheet 4; see Appendix A). During both phases, students are actively involved in problem solving and meaning making through a co-constructive process that aims to develop their scientific competence.</p> <p><i>Post-task:</i> the museum educator focuses on some of the words students used during the activities in the <i>pre-task</i> and <i>task-cycle</i>.</p> <ul style="list-style-type: none"> - In the Final remarks stage, the museum educator praises students' English skills, while encouraging them to come back to the museum again in the future.
Timetable and Evaluation	These two components do not fit within the museum context and are not taken into consideration.

6.3. Implementation of the CLIL museum programmes

The CLIL museum programmes were implemented in three school years. In the first year (2015-2016), only the *Looking for the right words* were implemented at *Ca' Rezzonico* and *Ca' Pesaro*. In the second year (2016/2017), we activated the CLIL museum programme on *Animal classification* at the *Natural History Museum* of Venice. In the third year, we also activated the CLIL museum programme *Exploring the Lagoon Natural History Museum* of Venice, and the *The Stones of Venice* at the *Doge's Palace*. In total, 2069 students (both lower and upper secondary) participated in the CLIL museum programmes (1st year: n=175; 2nd year: n=624; 3rd year: n=1270). Following is a table, which gives an general overview of the number of students and their distribution across museums/CLIL museum programmes (Tables 12, 13 and 14):

Table 12: *Students participating in the CLIL museum programmes in 2015/2016*

Museums	Low secondary schools	Upper secondary schools
<i>Ca' Rezzonico</i>	0	109
<i>Ca' Pesaro</i>	45	21
TOT. Students	45	130

Table 13: *Students participating in the CLIL museum programmes in 2016/2017*

Museums	Low secondary schools	Upper secondary schools
<i>Ca' Rezzonico</i>	23	38
<i>Ca' Pesaro</i>	99	101
<i>Natural History Museum (Animal Classification)</i>	Not on offer	363
TOT. Students	122	502

Table 14: *Students participating in the CLIL museum programmes in 2017/2018*

Museums	Low secondary schools	Upper secondary schools
<i>Ca' Rezzonico</i>	108	130
<i>Ca' Pesaro</i>	270	38
<i>Natural History Museum (Animal Classification)</i>	Not on offer	261
<i>Natural History Museum (Lagoon)</i>	Not on offer	310
<i>Doge's Palace</i>	Not on offer	153
TOT. Students	378	892

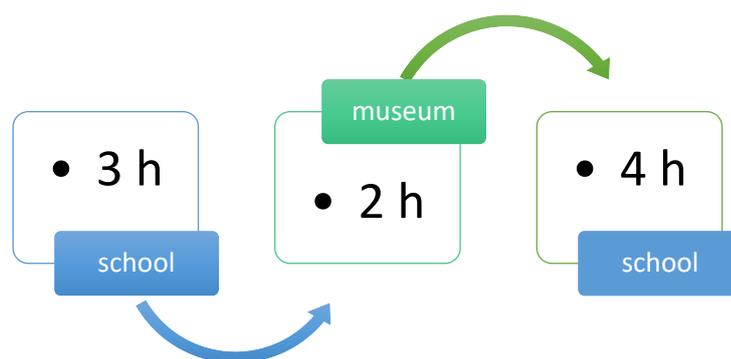
7. The school-museum integrated CLIL module on *Animal Classification*

In this chapter, we will give a full detailed description of the steps that were taken in designing the school-museum integrated CLIL module on *Animal Classification* (Paragraph 7.1.). Thus, in Paragraph 7.2., we will outline the lesson plans of the module (see Appendix B for the .pdf versions of students' worksheets and introductory presentations). Finally, in Paragraph 7.3., we will give a brief overview of how the programmes were implemented and the number and distribution of students participating in the programmes.

7.1. Development of the module

In September 2016, we initiated a partnership with the *Liceo Artistico Marco Polo*, and we created a nine hour school-museum integrated module aimed at integrating the CLIL museum visit on Animal classification in the science school curriculum of first and second year students. The module consisted of: four hour lessons delivered at school before the museum visit, two hour workshop delivered at the museum (CLIL museum visit), and four hour lessons delivered at school after the museum visit (see Figure 10).

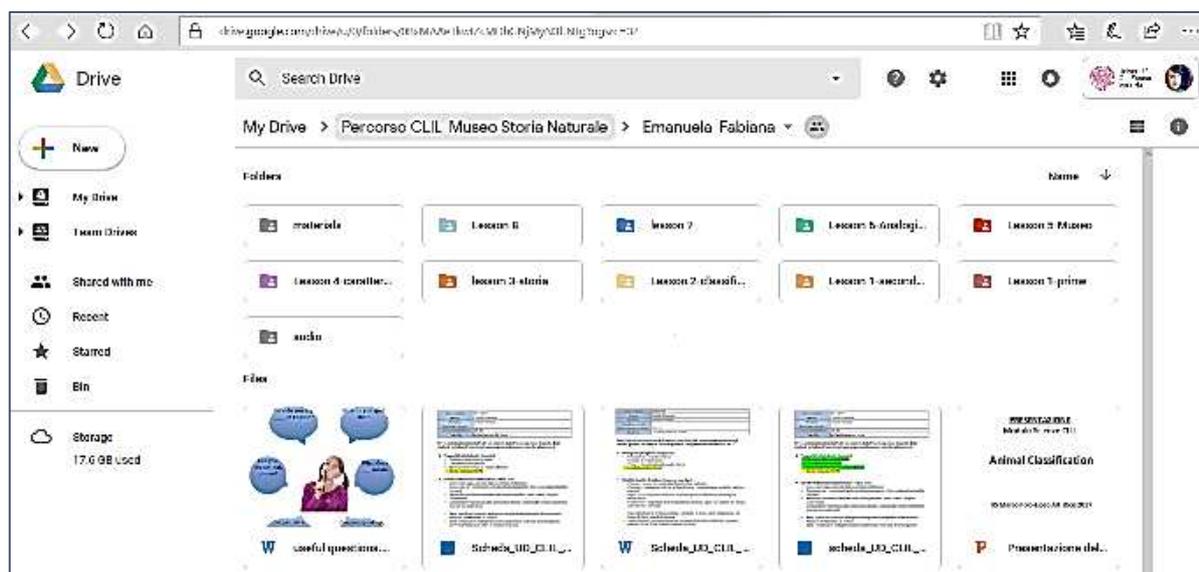
Figure 10: Visual representation of the structure of the school-museum integrated CLIL module



The development of the module took place over a period of four months (October 2016-January 2017), during which both lesson plans and worksheets (pre- and post-visit activities; see Appendix B) were created collaboratively by the Researcher-practitioner, the two Biology teachers (Elena T and Paola T), and a Biology teaching assistant (Stefano TA) (for a profile of the participants

see Paragraph 8.5.). The team teaching met on a weekly basis, and built a Google Drive Folder, in which to store the plan of the module, the web resources used as a springboard for the development of the classroom worksheets, the final versions of the classroom worksheets (divided per lesson), and the Power point introductory presentation of the module (for a full description of the module see Paragraph 7.2.). The image below shows a screenshot of the Google Drive folder and how it was organised:

Figure 11: Screenshot of Google Drive folder used for the development of the school-museum integrated CLIL module



The teaching team also organised the logistics of the museum trip in accordance with the school timetable and availability of the other teaching staff. Two other teachers had to act as chaperones of the students so as not to hinder the work of the other teachers and the smoothly delivery of the school curriculum.

7.2. The structure of the module

In this paragraph, we will outline the structure of the school-museum integrated module as collaboratively designed by the Researcher-practitioner and the Marco Polo teachers, reporting the standard format as used by the teachers of the *Liceo artistico* Marco Polo.

Module aimed at first and second year students

Academic year	2016/2017
Teachers	Elena T, Paola T, Stefano TA, and Researcher-practitioner
Subject	Natural sciences
Class	Second year classes
Title of the module	Animal Classification

Language and content needs

- Knowledge of the concept of “species”
- Knowledge of evolutionism
- Knowledge of Lamarck and Darwin’s evolution theories
- A2 English language level

Content objectives (know and know how)

- To know how the concept of biological classification developed through time
- To know the biological characters to classify animals
- To know that modern taxonomy is based on a hierarchical system based on seven categories
- To know and understand the importance of the binomial nomenclature and that the scientific names used to classify animals are universal and univocal

- To be able to identify the analogous and homologous structures in the specimens exhibited at the Natural History Museum of Venice.
- To be able to complete a cladogram with the key characteristics of the observed organisms so as to identify the relationships among them.
- To be able to apply the knowledge related to animal classification in real life, through recognising the plant and animal species that accompany us daily.

Language objectives (know and know how)

- To know the subject specific vocabulary in the context of animal classification.
- To be able to use the classroom language to ask for information and clarification.
- To be able to give definitions using the correct subject specific language.

Transversal objectives

- Predict, classify, reason, apply knowledges, identify, catalogue, and justify

Contents

- Use of fossils
- History of classification
- Biological characters to classify animals (i.e. morphological, anatomical, genetic etc.)
- Analogous and homologous structures
- Binomial nomenclature and the hierarchical system of animal classification

Timeline: 9h

Methodology (frontal and interactive lessons, cooperative learning, self-training etc.)

- Interactive lessons
- Cooperative learning

Instruments (text books, materials, activities, other resources)

- Photocopies given by the teachers
- Interactive White Board (IWB)
- Videos
- Smartphone
- Authentic texts

Assessment (oral, written etc.)

- Design and presentation of a poster (see Appendix B)

PRE-TASK

Lesson 1 (1 hour)	<i>Evolutionism</i>
<i>Activity 0</i>	Teachers project the power point presentation on the structure and rules of the module on the IWB
<i>Activity 1</i>	attivazione conoscenze pregresse e vocabolario specifico attraverso il brainstorming
<i>Activity 2</i>	Students read the text on evolutionism http://www.educationquizzes.com/gcse/biology/unit-1-theories-of-evolution/ Worksheet 1
<i>Activity 3</i>	Students answer the questions in the QUIZ Worksheet 1
<i>Activity 4</i>	Feedback in plenary

TASK

Lesson 2 (1 hour)	<i>Amazing world of animals</i> Worksheet 2 (Language support)
<i>Activity 1</i>	-Brainstorming on the meaning of animal classification -Practical activity: students have to divide animals in three groups and reflect on the aspects/criteria they chose to do so
<i>Activity 2</i>	Students have to divide animals in two groups: vertebrates and invertebrates
<i>Activity 3</i>	Students have to divide animals in eight sub-groups: mammals, reptiles, amphibians, birds, insects, arachnids, and molluscs
<i>Activity 4</i>	Activity on vocabulary: matching (image-word) Worksheet 1

Lesson 3 (1 hour)	<i>History of classification</i>
Activity 1	Recap: students complete the table in Worksheet 1 , checking the information through using the following links: http://www.sciencekids.co.nz/animals.html http://www.ducksters.com/animals.php
Activity 2	Students read the text on the History of Classification in Worksheet 2 and need to underline the responses to the following questions: Why do we remember Aristotle? Why do we remember Ray?
Activity 3	Students read the text and answer the multiple choice
Activity 4	Through reading an online poster on Linneous, students complete a cloze and a diagram in Worksheet 3

Lesson 4 (1 hour)	<i>Characters to classify animals</i>
<i>Activity 1</i>	Students watch the video at this link: https://www.youtube.com/watch?v=simuz_A--DY Students need to understand how many and which characters can be used to classify (Worksheet 1)
<i>Activity 2</i>	Students watch the video again and need to match the definitions to the corresponding characters (Worksheet 2)
<i>Activity 3</i>	Students complete a cloze on the definitions of each character (Worksheet 3)

Lesson 5 (1 hour)	<i>CLIL Museum visit</i>
<i>Activity 1</i>	<i>Students are provided with some information about the museum visit before going to the museum</i>

Lesson 6 (1 hour)	<i>Post-visit museum</i>
<i>Activity 1</i>	Questionnaire to recap/consolidate what learnt during the visit (Unfortunately not done for lack of time)
<i>Activity 2</i>	Students read the text in Worksheet 1 and complete the table in Worksheet 2
<i>Activity 3 and 4</i>	Using the system at the basis of scientific classification, students try to classify their school (Worksheet 3), and then an animal of their choice (Worksheet 4)
<i>Activity 5</i>	“Guess who?”: the teacher writes the name of an animal species at the whiteboard and students need to guess what animal it is by asking her/him questions

Lesson 7 (1 hour)	<i>Poster preparation</i>
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POST-TASK (attività di feedback, riflessione su quanto fatto, eventuale rinforzo)

Lesson 8 (1 hour)	<i>Poster preparation</i>
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Lesson 9 (1 hour)	<i>Poster presentation</i>
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7.3. The implementation of the module

The module was implemented in the second semester (January-May 2016) of the academic year. Eleven classes participated among first and second year students of the *Liceo Artistico Marco Polo*. Unfortunately, while we wanted to schedule the CLIL museum visit in the middle of the module, this was not always possible because of students' timetable, public holidays, and museum availability. This meant that while some students visited the museum on their fifth lessons, others did it on their sixth lesson, and some others on their last lesson. Following are two picture of the students at the *Natural History Museum of Venice*.

Image 2: *Marco Polo Art students at the Natural History Museum of Venice*



8. The study

The purpose of this study was twofold. On the one hand, we were interested in developing a pedagogical framework to bridge the gap between Content and Language Integrated Learning at school and at the museum. On the other, we were also interested in understanding the impact that the participation in a CLIL museum visit has on upper secondary school students' attitudes and perceived learning outcomes.

To do so we initiated an action research project in collaboration with the Foundation Civic Museums of Venice and we planned and delivered three CLIL museum learning programmes through integrating the principles at the basis of both museum and CLIL based pedagogies (see Chapter 6). Thus, we drew together evaluations, reflections, and observations related to both the design and implementation of these programmes, and came to identify a series of pedagogical principles to follow when delivering CLIL in the museum context. However, we were also interested in exploring how the CLIL museum learning visit could be integrated in the school curriculum, and we created a partnership with *Liceo artistico* Marco Polo (an upper secondary school in Venice), developing pre- and post-visit lessons as part of a school-museum integrated CLIL module on *Animal Classification* (see Chapter 7). Thus, we drew together evaluations, reflections, and observations related to both the design and implementation of the module, and came to identify a series of pedagogical principles to apply when delivering pre- and post-CLIL museum visit activities. Finally, the study also investigated the impact that participating in a CLIL museum learning visit had on students' attitudes and perceived learning outcomes.

We thought that an action research methodology could support these goals as it allows to put in practice a series of actions with an end-result of improving the situation and of learning from the consequences of those actions through collaborative, structured and reflective inquiry (Burns 1999). Despite being qualitative in nature, throughout our study we also collected quantitative data, and adopted an embedded mixed methods design (see Ivankova and Creswell 2009, 143-144), as well as triangulation procedures (see Paragraph 8.2.). We involved museum staff, upper secondary school teachers and students and the researcher-practitioner, and we collected data through using eight research instruments (i.e. fruitful discussions, oral and written interviews, teachers and students' questionnaires, focus groups, the researcher-practitioner's journal, and museum and classroom artefacts analysis and discussion; see Paragraphs 8.6.).

This chapter will provide a description of the research context (Paragraph 8.1.), the methodology used to conduct the study (Paragraph 8.2.), the research aims and questions (Paragraph 8.3.),

participants (Paragraph 8.4.), data collection tools and procedures (Paragraph 8.5.), data analysis procedures (Paragraph 8.6.), validity and reliability measures adopted in the study (Paragraph 8.7.), and it will conclude with an overview of the ethical procedures followed to collect the data (Paragraph 8.8.).

8.1. The research context

The Foundation Civic Museums of Venice

The Foundation Civic Museums of Venice consist of 11 Museums²⁴, which are all located on the island of Venice in the North East area of Italy. The museums involved in the research were: *Ca' Pesaro* (International Gallery of Modern Art), *Ca' Rezzonico* (Museum of XVIII Century Venice), and the *Natural History Museum* of Venice.

These museums were chosen because, unlike the others, they do not witness the same flow of tourists and thus are ideal settings for the development of CLIL museum programmes such as the ones created as part of our research project (see Chapter 6).

Ca' Pesaro and *Ca' Rezzonico* are both art museums. However, while *Ca' Pesaro* contains an important collection of paintings and sculptures from the 19th-20th century, *Ca' Rezzonico* is a reconstruction of what a Venetian residence looked like in the 18th century, and thus hosts both artworks and furniture from this century. The *Natural History Museum* of Venice, on the contrary, hosts zoological, anatomical, archaeological, anthropologic, and ethnographic collections, and thus offers the opportunity to engage with science related contents and skills.

The Education Department of the Civic Museums is responsible for the planning and management of all the educational programmes running in the 11 museums. As regards the school programmes, they are the ones that take care of both the booking system and the communication with teachers.

The CLIL museum learning programmes

In Chapter 6, we gave a full description of the steps we took to develop and implement the CLIL museum programmes at the Foundation Civic museums of Venice, and their structure.

²⁴ The Foundation Civic Museums of Venice has over 40,000 square metres of exhibition space, 10 centuries of architecture and decorations, over 200,000 works of art in the collections and 2,000,000 naturalist exhibits, 5 specialized libraries with 200,000 volumes and more than 2 million visitors every year.

In the first two years (2015/2016 and 2016/2017), the researcher-practitioner was the only educator delivering all three CLIL museum programmes (*Looking for the rights words at Ca' Rezzonico* and *Ca' Pesaro* and *Animal classification* at the *Natural History Museum* of Venice), which could be booked by teachers through the general online booking system. In the third year (2017/2018), other two educators, Museum Educator 1 and 2 joined her in delivering the programmes. Museum Educator 1 co-delivered with the Researcher-practitioner *Animal classification* at the *Natural History Museum* of Venice, and was also the only museum educator in charge of delivering *Exploring the Lagoon* (*Natural History Museum* of Venice). Museum Educator 2 co-delivered with the Researcher-practitioner *Looking for the rights words at Ca' Rezzonico* and *Ca' Pesaro*.

The partner school

In Chapter 7, we gave a full description of the steps we took to develop and implement the school-museum integrated CLIL module aimed at integrating the CLIL museum learning visit at the *Natural History Museum* of Venice into the science school curriculum of the *Liceo Artistico* Marco Polo, as well as outlining the structure of the module.

The *Liceo Artistico* Marco Polo is part of a wider school consortium on the island of Venice. The *Liceo Artistico* in Italy is a type of upper secondary school, which curriculum focuses on developing art and art history knowledge and skills, but it also covers a widespread range of disciplines, such as science and philosophy.

The module was implemented in the second semester of the school year 2016/2017, and eleven classrooms took part (both first and second year students), together with two Biology teachers, the Researcher-practitioner, and a teacher assistant (see Paragraph 8.4. for a profile of participants).

The other schools

Our research also involved other upper secondary schools from the Veneto region, which booked a CLIL museum learning visit at one of the three museums described above in the school years 2015/2016 and 2016/2017 (see Paragraph 8.5. for a profile of participants).

8.2. The research methodology

In planning a research project, researchers are always faced with the decision of which epistemological paradigm to employ to help them “solve defined problems” (Usher, 1996 quoted in Creswell 2007, 97). In particular, the current research belongs to the paradigm of Constructivism, which is based on the belief that “meaning is socially constructed by individuals in interaction with their world” (Merriam 2002 quoted in *ibid.*) and that reality, far from being unique, is “person-, context-, and timebound” (*ibid.*). As the researcher was actively involved as a practitioner in the planning and delivery of the CLIL museum learning programmes and of the school-museum integrated CLIL module, we agreed that the best way to explore our context was through adopting an action research methodology. It was our belief that only through a collaborative research we could really come to an understanding and improvement of the methodologies applied in our research context, and thus generate viable theories about their impact on students’ learning and attitudes. As “there are varying understandings of the term action research” (Chesler 1990 quoted in Crookes 1993, 73), we agree with Herr and Anderson (2015, 23) when they claim that in choosing action research for a doctoral thesis, a clear definition needs to be made explicit. In particular, we adopted the following view as representative of our epistemological and ideological stance:

«Action research is inquiry that is done by or with insiders to an organization or community, but never to or on them. It is a reflective process, but is different from isolated, that it is deliberately and systematically undertaken, and generally requires that some form of evidence be presented to support assertions» (Herr and Anderson 2015, 20-21).

According to Burns (2009, 114), ‘action’ «involves putting deliberate practical changes or ‘interventions’ in place to improve, modify, or develop the situation», while ‘research’ «involves a systematic approach to collecting information, or data, usually using methods commonly associated with qualitative research».

Action research can be adopted in almost any setting in which a problem «cries out for solution, or where some change of feature results in a more desirable outcome» (Cohen, Manion and Morrison 2000, 226). However, we did not aim to bring substantial change to the settings nor did we have any emancipatory desire in mind. As our research team involved participants from three different institutions (museum, school and university), we realised changes had to be well thought

and fit within each institution's agenda and structure. We strove very hard to negotiate our roles and to make our research project as a democratic process as possible, and to do so all the participants were involved, to varying degrees, in the research process. In particular, even though data was collected and analysed by the Researcher-practitioner, the other participants contributed to both the design of the instruments, and the analysis and discussion of the results.

At the basis of our inquiry there were the following features, common across all definitions of action research:

- “Action research is contextual, small-scale and localised” (Burns 1999, 29-30), which means that findings are not generalizable to other similar contexts, even though the data collected can inform those who work in similar contexts (Coonan 2010, 13).
- Action research is participatory and collaborative: participants work towards improving their own practices, but also reflect on them as a group (Cohen, Manion and Morrison 2000, 229).
- Action research is reflective and inquisitive, and thus requires those involved to «stand outside their experience and attend to it in such a way that they move beyond what appear to be common-sense interpretations of what things mean» (Sirotnik and Oates 1986 quoted in Crookes 1991, 80).
- Action research is “bottom up”, as it uses the practical experience of the context as the starting point for theoretical reflection (Coonan 2010, 13).

As regards the research process, we adapted Kemmis and McTaggart's (1988) model, consisting of four pivotal moments: planning, acting, observing, and reflecting. These moments are part of a spiralling process in which participants:

- 1) develop a plan of critically informed action to improve what is already happening.
- 2) Act to implement the plan.
- 3) Observe the effects of the critically informed action in the context in which it occurs, and
- 4) Reflect on these effects as the basis for further planning, subsequent critically informed action and so on, through a succession of stages.

According to Kemmis and McTaggart (1988 quoted in Herr and Anderson 2015, 113), «these stages often overlap, and initial planning may quickly become obsolete as learning informs the development of the question and the process».

Other researchers have offered different interpretations of the process of action research (see Cohen, Manion and Morrison 2000, 235-236; Burns 1999, 27), but they are all united by a common feature, that is ‘flexibility’. Indeed, «different combinations of researchers in different situations will need to make their own interpretations of what are appropriate processes for the circumstances of the research» (Burns 1999, 35), and this is exactly what we did.

To achieve a fuller understanding of our research context, we used an embedded mixed methodology design, collecting and mixing both quantitative and qualitative data (see Dörnyei 2007, 164). According to Ivankova and Creswell (2009, 143), This type of design “is used when a researcher needs to answer a secondary research question that requires the use of different types of data within a traditional quantitative or qualitative design”. Our study was mainly qualitative, but we used quantitative data from teachers (Group 2), and students (both groups; see Paragraph 8.3.) as a backdrop to answer Research questions 2, 3, and 4. In fact, Ivankova and Creswell (2009, 144) claim that embedded mixed method design can be also used when a researcher wants “to embed quantitative data within a traditionally qualitative case study to help describe the broader context in which a case is situated”. While our study did not fit the case study format, we still thought that this design was appropriate to answer our research questions. In fact, in our study, we collected quantitative and qualitative data almost concurrently, and we decided to mix them at the data analysis stage (ibid; see Chapter 9). By doing so, we were able to triangulate our data and thus confirm the results achieved from different vantage points.

8.3. The research process

Considering the context described in the previous paragraph (8.1.), and in Chapter 6 and 7, our research aimed at:

- 1) designing a pedagogical framework to bridge the gap between content and language integrated learning both at school and at the museum that would:
 - respond to the principles of museum-based learning and pedagogies.
 - *Scaffold* and encourage students’ active and collaborative engagement with museum contents through English as a FL.
 - Promote the integration of the CLIL museum visit in the upper secondary school curriculum.

- 2) evaluating the impact that participation in the CLIL museum programmes has on upper secondary students' attitudes and perceived learning outcomes.

8.4. Research questions

The first aim: pedagogical framework to bridge the gap

Our overarching question in investigating this aim was: *what pedagogical framework can be devised to bridge the gap between content and language integrated learning at school and at the museum?* In order to answer this question, we carried out an exploration of two foci:

Focus 1: integration of CLIL and museum based pedagogy during the CLIL museum visit

1. *What aspects need to be taken into consideration when integrating CLIL and museum-based pedagogies in the museum context?*

This research question aimed at identifying the aspects that need to be considered when integrating CLIL and museum based pedagogies, as emerging from participants' evaluations, comparisons, and reflections in relation to the design and implementation of the CLIL museum programmes at the Civic Museums of Venice. To answer this question, data was collected across the three years of the research project (2016-2018) from the museum staff, the Researcher-practitioner, teachers, and students.

Focus 2: integration of the CLIL museum visit into the upper secondary curriculum

2. *What aspects need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum?*

This research question aimed at (i) understanding how teachers (Group 2) participating in the research integrated the CLIL museum learning visit into their curriculum, and (ii) reflecting on the positive and negative aspects of the school-museum integrated CLIL module (see Chapter 7). As for the first aim, we asked teachers to describe what actions, if any, they took to prepare for and follow up the CLIL museum learning visit. We believed this would help us in understanding

teachers' expectations and motivations towards the museum experience. The second aim involved designing a CLIL museum-school integrated module with our partner school (*Liceo artistico Marco Polo*) and exploring the issues and potential of its implementation. We thought that by doing so we would be able to offer best practice as regards bridging the gap between school and museum education through a FL.

To answer this question, data was collected only in the second year of the research project (2016/2017).

The second aim: impact on students' attitudes and perceived learning outcomes

To investigate this aim, we devised the following two questions:

3. What impact does participation in the CLIL museum visit have on students' attitudes?

This research question aimed at exploring students' attitudes towards the CLIL museum visit. On the basis of the literature presented in Part 1, our assumption was that students would show very positive attitudes towards learning new and interesting contents through English, using English as a FL *beyond* the classroom, and in the museum context. Students' perceptions were triangulated with those of their teachers and of the Researcher-practitioner (the only museum educator in 2016/2017), allowing for a deeper understanding of the aspects impacting students' affective responses.

4. What impact does participation in the CLIL museum visit have on students' perceived learning outcomes?

This research question aimed at exploring what students perceived to have learned from the CLIL museum visit. Our assumption was that they would identify learning gains in accordance to the extensive literature on the benefits of CLIL (i.e. use of the FL for a more genuine communication), but also learning outcomes related to learning in the museum (i.e. grasping meaning more firmly). Students' perceptions were triangulated with those of their teachers and of the researcher-practitioner (the only museum educator in 2016/2017), allowing for a deeper understanding of the potentialities of learning through a FL in the museum context.

To answer these questions, data was collected only in the second year of the research project (2016/2017).

8.5. Participants

The research involved the following participants:

a) *Museum staff (Foundation Civic Museums of Venice)*

Full time museum staff:

- **Education Director:** point of reference for *Ca' Rezzonico* and *Ca' Pesaro*. She oversees the design, implementation, and management of all the educational programmes on offer at the 11 museums part of the Foundation Civic Museums of Venice. The Museum Education Director has an art history background and several years of experience in museum education.
- **MSN Director:** he is the key person responsible for the running of the *Natural History Museum* of Venice. He has a science background and several years of experience in science communication, and museum management.
- **MSN Educator 1 and 2:** they are responsible for the design of the educational provision of the *Natural History Museum* of Venice. They both have a background in science and several years of experience in devising non-formal science educational activities. They respond to both the Education Director and the MSN Director.

Freelance museum staff:

- **Museum Educator 1:** is a fully employed educator at one of the Venetian co-operative enterprises that deliver educational science workshops in schools, museums and outdoor environments. He is a very experienced science educator, having a strong scientific background, and a B2 level in English. He took part in two training workshops on CLIL, one aimed at museum educators and another aimed at teachers. He also job shadowed the Researcher-practitioner while delivering a couple of CLIL workshops on “Animal classification”. In the third year of the project (2017/2018) he co-delivered with the Researcher-practitioner the programme on *Animal Classification*, and was the only educator

responsible for the delivery of the programme on the *Lagoon* at the *Natural History Museum of Venice*.

- **Museum Educator 2:** she works as a museum educator for several of the eleven museums of the Foundation Civic Museums of Venice. She has an art history background, several years of experience in museum teaching, and a C2 level in English. In the third year of the project (2017/2018), she co-delivered with the Researcher-practitioner the *Looking for the right words programmes* at *Ca' Rezzonico* and *Ca' Pesaro*.

b) *Upper secondary school teachers*

Marco Polo teachers (partner school; Group 1):

- **Elena T:** in service biology teacher. She is a qualified CLIL teacher with a C1 level in English.
- **Paola T:** in service biology teacher. She is not qualified in the CLIL methodology, and she has an A1 level in English.
- **Stefano TA:** external teaching assistant, with a biology degree, and a C1 level in English.

Teachers (Group 2):

Table 15: *Teachers in Group 2 divided by museum of the visit, subject taught, and type of school*

Teachers	Subject	Museum type	School
T1	Law	<i>Art</i>	<i>Istituto professionale</i>
T2	English language and literature	<i>Art</i>	<i>Istituto professionale</i>
T3	English language and literature	<i>Art</i>	<i>Liceo scientifico</i>
T4	Italian language and literature	<i>Art</i>	<i>Liceo scientifico</i>
T5	Science	<i>Science</i>	<i>Liceo scientifico/linguistico</i>

T6	Science	<i>Science</i>	<i>Liceo scientifico /linguistico</i>
T7	English language and literature	<i>Science</i>	<i>Liceo scientifico / linguistico</i>
T8	Physical education (PE)	<i>Science</i>	<i>Liceo scientifico / linguistico</i>

c) *Students*

322 upper secondary school students were involved in the research project:

Table 16: *Students in Group 1 (Liceo artistico Marco Polo)*

Students	N° of students	Age	Museum type	CLIL module at school	School type
S1-S140 S158-S221	204	14-16 years old	<i>Science</i>	Yes	<i>Liceo artistico Marco Polo</i>
TOT	204				

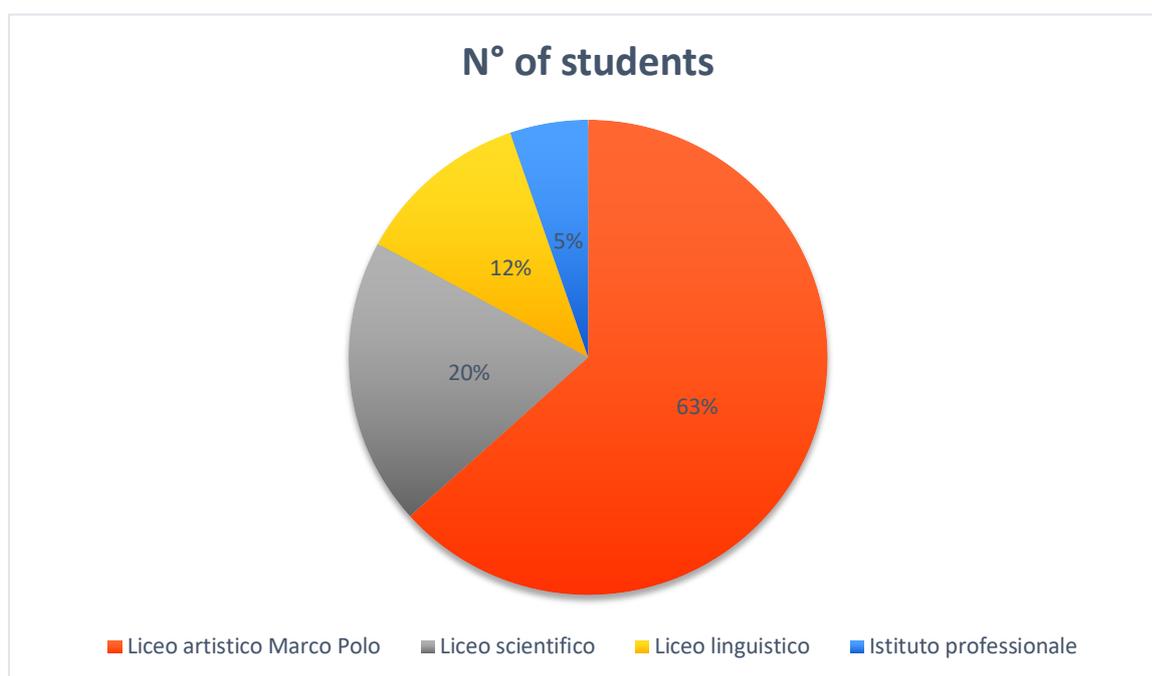
Table 17: *Students in Group 2 divided by type of museum and school*

Students	N° of students	Age	Museum type	CLIL module at school	School type
S259-S278 S301-S322	42	14-16 years old	<i>Science</i>	No	<i>Liceo scientifico</i>
S243-S258 S279-S300	38	14-16 years old	<i>Science</i>	No	<i>Liceo linguistico</i>
S222-S242	21	18-19 years old	<i>Art</i>	No	<i>Liceo scientifico</i>
S141-S157	17	15-16 years old	<i>Art</i>	No	<i>Istituto professionale</i>
TOT	118				

Table 18: *Students divided only by school type*

School type	N° of students
Liceo artistico Marco Polo	204
Liceo scientifico	63
Liceo linguistico	38
Istituto professionale	17
TOT	322

Figure 12: *Visual representation and percentages of students in the sample per type of school*



d) Researcher-Practitioner

In any action research study, it is important to provide some background on the researcher-practitioner in order to clarify his/her position in relation to the setting and to the other participants with the aim of “thinking through issues of research validity or trustworthiness, as well as research ethics” (Herr and Anderson 2015, 57). According to Herr and Anderson (ibid.), the position of the researcher “can contain elements of both insider and outsider or change during the research process” (Herr and Anderson 2015, 57) or even “vary for different parts of the study” (Herr and Anderson 2015, 60). Moreover, describing the researcher-practitioner’s profile is necessary when

trying to understand the perspectives that led to the interventions and the rationale for the research (Drost 2012, 56).

I am a doctoral student in the Department of Linguistic and Comparative Cultural Studies at the University Ca' Foscari of Venice, but I have also been a museum educator and a teacher of English for several years (both in Italy and abroad). During an internship in an art museum in Venice I realised that several Italian school teachers were booking a museum visit in English with the aim of providing their students with the opportunity to practise their English skills outside of the school classroom. Unfortunately, what I noticed was that the museum visit was not tailored to the specific linguistic needs of the FL students and there was little interest on their part to engage with either the museum educator or the art works. However, other museums were responding to the interest in museum based activities aimed at promoting FL learning by adopting the CLIL methodology. This became indeed the focus of my master dissertation (Fazzi 2014).

It was after concluding my Master research project that I realised practical interventions had to be made and explored in order to both define a pedagogical framework to inform museum educators and teachers' practice and understand the impact of these experiences on students' learning and affective factors.

The experience described above prepared the ground for the current action research project, in which my position as an insider/outsider shifted and varied dramatically during the research process. Indeed, given my background in museum education and CLIL, I was asked by the other participants to deliver the museum visits, and to work as the teacher assistant for four of the *Liceo artistico* Marco Polo school groups. This 'insider' role gave me the chance to understand the dynamics and agenda of both institutions more deeply than I would otherwise. However, my active involvement also resulted in issues of reliability of the research process, which I tried to resolve through adopting several validity measures (see Paragraph 8.7.).

8.6. Data collection: instruments

This action research study was conducted over three years (2015/2016, 2016/2017, and 2017/2018). In the first and third year, data was collected only to answer Research question 1, while in the second year data was collected to answer all 4 Research questions.

Eight types of instruments were used: 1) fruitful discussions, 2) Museum Educator 2's oral interview, 3) Education Director and Museum Educator 1's written interviews, 4) students'

questionnaires, 5) teachers' questionnaires, 6) students' focus groups, 7) the Researcher-practitioner's journal, and 8) classroom and museum artefacts.

For each instrument, we will highlight how it was constructed, and the research question it aimed to investigate.

1) Fruitful discussions

With fruitful discussion, we mean a group discussion in which the moderator and the participants share equal responsibilities (Foreman-Peck and Travers 2013). In fact, the Researcher-practitioner provided the other participants with a questioning route (see Appendixes F and G), which only offered inputs for discussion. Two fruitful discussions were held in the following formats:

- Marco Polo teachers (Group 1) and Researcher-practitioner (Appendix F)
- MSN staff and Researcher-practitioner (Appendix G)

The fruitful discussion between the Marco Polo teachers (Group 1) and the Researcher-practitioner aimed at discussing: (i) weaknesses and strengths of the CLIL museum programme on Animal classification, and support needed by the museum to integrate the visit into the school curriculum (Research question 1), (ii) the aspects that need to be considered when integrating a CLIL museum visit in the upper secondary school curriculum, through reflecting on the weaknesses and strengths of the school-museum integrated CLIL module on Animal classification (Research question 2), and (iii) the impact of the CLIL museum visit at the *Natural History Museum of Venice* of their students' attitudes and perceived learning outcomes (Research questions 3 and 4).

The fruitful discussion between the MSN staff, and the Researcher-practitioner aimed at discussing the aspects that need to be considered when integrating CLIL and museum pedagogies, through reflecting on and comparing observations as regards the design and development of the CLIL museum programme on *Animal Classification* (Research question 1).

2) Museum Educator 2's oral interview

Museum Educator 2's oral interview aimed at exploring her perceptions on the aspects that are important when integrating CLIL and museum based pedagogy, on the basis of her experience in

delivering the CLIL museum programmes at *Ca' Rezzonico* and *Ca' Pesaro* (Research question 1). The oral interview was semi-structured, as the Researcher-practitioner pre-prepared a questioning route, but left the format open-ended so as to allow Museum Educator 2 to “elaborate on the issues raised in an exploratory manner” (Dörnyei 2007, 136; see Appendix L for the questioning route). The questioning route was constructed on the basis of the Researcher-practitioner’s previous knowledge of the domain in question and reflection on the data previously collected, and through adapting the framework suggested by Dörnyei (idem, 137).

3) Education Director and Museum Educator 1’s written interviews

Two written interviews were sent via e-mail to the Education Director and Museum Educator 1, because of both time constraints, and the difficulty encountered in scheduling face-to-face meetings. The written interview to the Education Director aimed at exploring her perceptions as regards the aspects that need to be considered when integrating CLIL and museum pedagogies, through reflecting on the design and implementation of the CLIL museum programmes at *Ca' Rezzonico* and *Ca' Pesaro* (*Looking for the right words*; Research question 1). The questioning route was similar to that used for the fruitful discussion between the MSN staff and the Researcher-practitioner, and was based on the Researcher-practitioner’s previous knowledge of the domain in question and reflection on the data previously collected.

The written interview to Museum Educator 1 aimed at exploring his perceptions on the aspects that are important when integrating CLIL and museum based pedagogy, on the basis of his experience in delivering the CLIL museum programmes, *Animal Classification* and *Exploring the Lagoon*, at the *Natural History Museum of Venice* (Research question 1). The questioning route was the same as the one used for Museum Educator 2’s interview (see Appendix I).

4) Students’ Questionnaires

We felt questionnaires were appropriate to use in this research project as they provided a backdrop to the understanding of students’ attitudes and perceived learning outcomes.

The questionnaire was in a paper format and consisted of both open and closed questions (see Appendix C). Some of the items in the questionnaire were adapted from existing questionnaires on learners’ motivation in CLIL contexts (see Lasagabaster 2010; Coyle 2013; Doiz, Lasagabaster and Sierra 2014; Coonan 2012), and in non-formal language contexts together with questionnaires

aimed at understanding students' learning outcomes and motivation resulting from a museum visit (see Hooper-Greenhill 2004). Moreover, we followed Dörnyei and Taguchi (2010)'s suggestions in designing the format of the questionnaire, and the wording of the questions/items.

The questionnaire was divided into three sections. The first section was a numerical rating scale (from 1=totally disagree to 4=totally agree) with 7 items and aimed at identifying students' attitudes towards the CLIL museum visit (Research question 3). The second section aimed at understanding students' perceived learning outcomes (Research question 4) and consisted of 3 multiple-choice items and two true-false items. The third section aimed at exploring students' attitudes (Research question 3) and consisted of two closed questions and follow-up open-ended questions. At the end of the questionnaire, students were asked personal questions, such as gender and age.

5) Teachers' (Group 2) questionnaires

Another type of questionnaire was devised to explore teachers' expectations towards the CLIL museum visit, their intention to integrate the visit into the school curriculum, and their perceptions regarding students' attitudes and perceived learning outcomes (Research questions 2, 3, and 4).

The questionnaire was in a paper format and consisted of both open and closed questions divided in two parts (see Attachment D). Moreover, we followed Dörnyei and Taguchi (2010)'s suggestions in designing the format of the questionnaire, and the wording of the questions/items. Questions 1, 2, 4, 5 in Part 1 and Questions 9a and 9b in Part 2 of the questionnaire aimed at responding to Research question 2, as they collected information as regards teachers' goals and expectations in booking the museum visit, and their intention to integrate the museum visit in the school curriculum. Questions 6, and 7 in Part 2 of the questionnaire consisted of numerical rating scales (from 1=totally disagree to 4=totally agree) aimed at understanding teachers' perceptions in relation to students' perceived learning outcomes (Research question 4). Question 8 was also a numerical rating scale (from 1=totally disagree to 4=totally agree) aimed at exploring how much teachers perceived the CLIL museum visit appropriate to their students' linguistic and cognitive competences (Research question 4). Question 10 and 10b in Part 2 aimed at collecting teachers' perceptions of students' attitudes towards the CLIL museum visit (Research question 3).

6) Marco Polo students' (Group 1) focus groups

The Researcher-practitioner met with the students of *Liceo artistico* Marco Polo to discuss their perceptions as regards both the CLIL museum visit and the school-museum integrated CLIL module on *Animal classification*. The focus group format was specifically devised to yield deeper and constructive responses from the students in relation to: what they perceived to be weaknesses and strengths of the school-museum CLIL integrated programme (Research question n. 2), what emotions and reactions they had during CLIL museum visit (attitudes; Research question n. 4), and what they perceived to have learnt during the visit (Research question n. 4),

We used data gathered through the students' questionnaires to design the *Questioning route* (see Appendix E1), structured according to Baldry's (2007, 46-49) suggestions. The language used to word the questions was kept as clear, simple, and engaging as possible, and conversation aids²⁵ (see Appendix E2) were used to facilitate and encourage students' discussions.

Focus groups were used in this study, instead of standard interviews, because they are ideal to gain insightful information in new areas of inquiry, they are easy to conduct, and they have the advantage to be less time consuming, while allowing to collect information from more people at the same time (Baldry 2007). Also, we were not interested in individual students' responses, but rather in the "collective experience of group brainstorming, that is, participants thinking together, inspiring and challenging each other, and reacting to emerging issues and points" (Dörnyei 2007, 144). Indeed, we wanted students to feel actively involved in the research process and to give them the chance to reflect upon their experiences through exchanging views with their peers. This way, we were also able to get information that were unexpected and that did not emerge in the open-ended responses of the questionnaires (Baldry 2007).

7) The researcher-practitioner's journal

I kept a journal in which I recorded both the descriptive and reflective aspects of my observations regarding the CLIL museum visits, to better focus my analysis and interpretations (see Burns 1999, 90). In particular, I jotted down notes regarding the following:

- a short description of the dynamics of the CLIL museum visits.

²⁵ We followed Richards' (2003, 56) suggestions of using words association, evaluation of responses, picture identification etc. as useful tools to prompt discussions during interviews.

- Students' reactions and emotional responses to the CLIL museum experience.
- Reflections on my emotions, teaching methodology, issues encountered when teaching.
- My hypotheses, intuitions, and explanations.

Through using this introspective method, I was able to collect my on-going interpretations and reflections on the weaknesses and strengths of the CLIL museum learning programmes, which helped towards the design of a pedagogical framework (Research question 1).

The journal also enabled me to record my emotions in relation to my practice, allowing me to draw hypotheses on the profile that a museum educator involved in CLIL museum learning programmes should have (Research question 1). Indeed, according to Hitchcock and Hughes (quoted in Burns 1999, 89), keeping a diary or a journal allows the researcher to “reflect on the research, step back and look again at the scenes in order to generate new ideas and theoretical directions”.

However, I also recorded observations made on the spot of students' affective reactions to the CLIL museum visit together with their spontaneous comments, which allowed me to further reflect on the impact of the museum experience on students' attitudes (Research question 3) and perceived learning outcomes (Research question 4).

8) Classroom and museum artefacts

According to Burns (1999, 140), “documents accumulated during the course of an enquiry can illuminate numerous aspects of practice”. In particular, documents such as lesson plans, classroom materials, class memos and so on, can support researchers in complementing other observations “by building a richer profile of the classroom or institutional context for the research” (Burns 1999, 140).

The documents in this study were collected both in the museum and in the school (*Liceo artistico Marco Polo*) context. As regards the museum context, they were the lesson plans (see Chapter 6), the teachers' informative documents, activity books and worksheets (see Appendix A). As regards the school context, they were the museum-school integrated CLIL module structure (see Chapter 7), the classroom materials, the assessment grids, and students' poster guidelines (see Appendix B).

These *artefacts* were used to document the results of our actions both in the museum and in the school context (Research questions 1 and 2), but they also supported reflections on the areas that needed improvements.

8.7. Data collection: procedures

This paragraph describes how the eight instruments outlined above were administered.

The fruitful discussion between the Marco Polo teachers and the Researcher-practitioner was held at the end of the implementation of the school-museum integrated CLIL module in May 2017, while the fruitful discussion between the MSN staff (MSN Director, MSN Educators 1 and 2) and the Researcher-practitioner was held in May 2018. These final discussions were audio recorded before being analysed (see Paragraph 8.8.2.).

Two written interviews were sent both to the Education Director and Museum Educator 1 via e-mail in April 2018, and we received their responses in May 2018. These interviews were translated from Italian into English before being analysed (see Paragraph 8.8.2.).

Museum educator 2's oral interview was held in May 2018. It was audio recorded, and transcribed before being analysed (see Paragraph 8.8.2.).

As for students and teachers' questionnaires, they were piloted a first time with 2 classes (45 students and 3 teachers) at *Ca' Pesaro*, and a second time with 1 class (20 students and 1 teacher) at the *Natural History Museum* in January 2017. This process led to the revision of some of the questions in both teachers and students' questionnaires. In particular, changes were made as regards the types of questions and the wording of some of them, as they resulted difficult to comprehend. Questions that proved irrelevant were instead simply avoided. Both students and teachers' questionnaires were anonymous and were administered at the end of each museum visit. Questionnaires were administered to teachers and students from both the partner school (*Liceo artistico Marco Polo*) and the other upper secondary schools (see Paragraph 8.5). 322 students' questionnaires and 8 teachers' questionnaires were collected with a 100% response rate between February and May 2017 (see Tables 19 and 20).

Table 19: *Date of visits in which questionnaires were collected (teachers and students in Group 2)*

Date of the visit	Museum	Type of school
23/03/2017	<i>Ca' Rezzonico</i>	Istituto professionale
30/03/2017	<i>Ca' Pesaro</i>	Liceo scientifico
04/04/2017	<i>Natural History Museum of Venice</i>	Liceo scientifico/linguistico
03/05/2017	<i>Natural History Museum of Venice</i>	Liceo scientifico/linguistico

Table 20: *Date of visits in which questionnaires were collected (teachers and students of the Liceo artistico Marco Polo)*

Date of the visit	Liceo artistico Marco Polo (year)
21/02/2017	1 st year students
22/02/2017	1 st year students
22/02/2017	2 nd year students
23/02/2017	2 nd year students
09/03/2017	2 nd year students
10/03/2017	2 nd year students
16/03/2017	1 st year students
24/03/2017	1 st year students
28/03/2017	2 nd year students
30/03/2017	1 st year students

As for students' focus groups, eight sessions were organised between March and May 2017 with only the students of the *Liceo artistico* Marco Polo (Group 1). The sessions were delivered at the end of the school-museum integrated CLIL module with eight of the eleven classes participating in the project (see Table 21).

Table 21: *Marco Polo Art students' focus group discussions*

Focus group code	Date	Class grade	Teachers	Duration (minutes)	Students (N°)	Comments
N/A	17 April 2017	2nd year	Elena T Researcher-practitioner	34:00	N/A	Pilot
FG1	18 May 2017	1st year	Paola T Stefano T	36:00	Kristina, Bianca, Agnese, Elisa, Giuseppina, Isabella (6)	
FG2	16 May 2017	1st year	Elena T Researcher-practitioner	33:00	Luna, Francesca, Carmel, Chris, Noemi, Claudio (6)	
FG3	16 May 2017	1st year	Elena T Researcher-practitioner	42:39	Enrico, Paolo2, Eleonora, Luca, Jessica, Gloria	

FG4	19 April 2017	2nd year	Elena T Researcher- practitioner	35:00	Sandro, Rebecca, Maria, Anna, Paolo, Giulia (6)	
FG5	18 May 2017	1st year	Paola T Stefano TA	40:28	Gemma, Cinzia, Amanda, Rosa, Emanuele, Julie (6)	
FG6	21 April 2017	2nd year	Paola T Stefano TA	41:36	Samuel, Carlo, Sara1, Sara2, Valentina, Laura, Roberto (7)	
FG7	21 April 2017	1st year	Paola T Stefano TA	45:06	Tommaso, Sofia, Serena, Giuseppe, Alessandro, Rosa, Margherita	

The sessions were prepared and managed following Baldry (2007, 34)'s instructions, but unfortunately changes had to be made to fit the particular school context. The first focus group

was used as a pilot and it led us to reword some of the questions, to use particular discussion aids, and to avoid using the video camera. Indeed, we realised that the spaces in which we were obliged to hold the focus groups were also used by students who were not involved in the project and thus had not given consent to appear in the videos. Furthermore, during the pilot session, students felt uneasy about being video-recorded and we decided to only audio-record the following sessions via using an audio-recorder and a smartphone (as a backup). Unfortunately, this choice resulted in difficulties related to both identifying who was speaking at any one time during the transcription stage and capturing participants' non-verbal behaviour, but we feel it did not impact the quality of the data collected. Every session lasted between 34 and 45 minutes and involved 6-7 students at the time. We felt this would encourage the young participants' attention and engagement (Baldry 2007, 34) while, at the same time, responding to the need to conduct the sessions within the 60 minutes classes of the teachers participating in the research. To ensure an appropriate mix of focus group participants, we selected students from the same classroom, but who were different for gender, school grades, learning attitudes and styles, behaviour, and cognitive skills (Baldry 2013, 23-24). Participants' selection was done in accordance and with the help of the teachers. Despite the availability of the school administration and of the teaching staff, to find an appropriate quiet space within the school where to hold the focus groups proved to be problematic. This is also the reason why some of the sessions took place almost a month after the end of the CLIL school-museum integrated module. We managed to book a private room for only four of the focus groups, while we had to organise the others in the hall with all the consequences that this entails (background noises and distractions). As suggested by Baldry, we explained the rules of the discussion at the beginning of every session, trying to create an informal and pleasant atmosphere, in which students could feel at ease. We also tried to engage all the participants in the discussion and, when we felt the responses were too short or superficial, we asked them to elaborate further by giving examples. Efforts were made to keep students focused on the topics under discussion and to contain those who would distract the others with off topic conversations. As for the Researcher-practitioner's journal, regular entries were made either right after the CLIL museum visits or a few days later in the first two years of the research project (2015/2016 and 2016/2017). Entries were organised chronologically, and for each one, the date, class, year, type of school, and general provenance of the group were specified. Entries were recorded both in English and Italian, and those in Italian were later translated into English. Finally, the entries were collected both digitally (using Penzu.com) and analogically (using a word document) and then later transferred into a word document.

As for classroom and museum artefacts, they were collected during the entire duration of the CLIL museum learning programme and of the museum-school integrated CLIL module at the *Liceo artistico* Marco Polo (November 2015-May 2017). These artefacts were stored both electronically (Google shared folders) and in paper before being analysed. We also took pictures, and collected students' artefacts, such as posters.

8.8. Data analysis procedures

This paragraph is devoted to the description of the procedures used to analyse the data collected through the sources described in Paragraph 8.6.

As Drost (2012, 65-66) claims «interpretation is not a separate part of the action research cycle» and, like in her study, the data analysis procedures followed in the current research were iterative, emergent, ongoing, and collaborative.

8.8.1. Quantitative analysis procedure

The analysis of the data collected through both teachers and students' questionnaires was conducted using the IBM SPSS software. As both teachers and students' questionnaires were in a paper format, we first inserted the data in two separate Excel files (i.e. one for the teachers' responses and the other one for the students' responses). These two files were then uploaded in SPSS, and two different working files were created, before applying different descriptive statistical procedures as explained in Chapter 9.

8.8.2. Qualitative analysis procedures

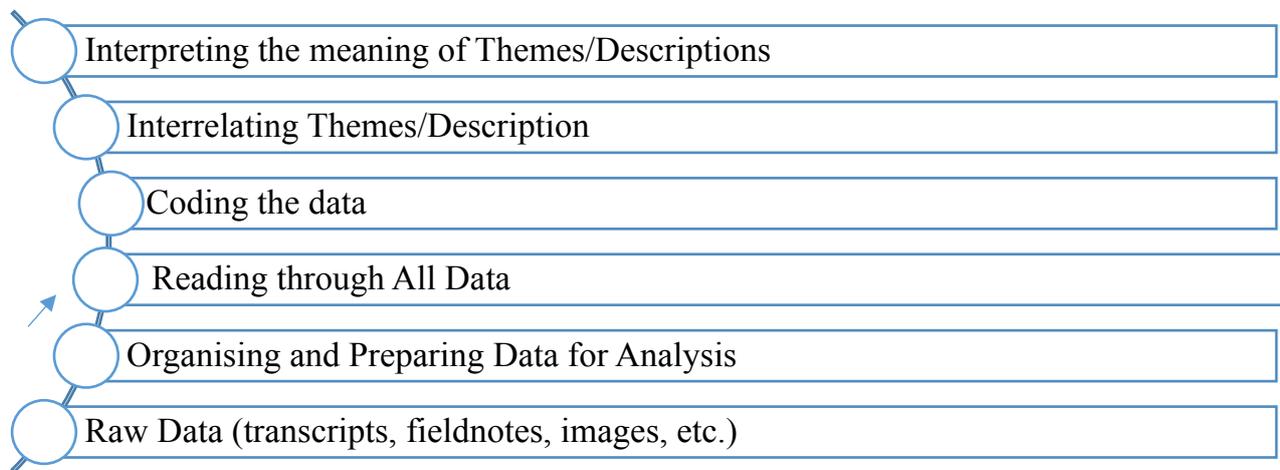
In analysing the qualitative data, we applied Content analysis as described by Schreier (2012, 170):

content analysis is a method for systematically describing the meaning of qualitative data. This is done by assigning successive parts of the material to the categories of a coding frame. This frame is at the heart of the method, and it contains all those aspects that feature in the description and interpretation of the material. Three features characterize the method: qualitative content analysis reduces data, it is systematic, and it is flexible.

Content analysis is pivotal for the researcher in focusing his/her attention on the main aspects related to his/her investigation. Every code or theme (we use these terms interchangeably) can also contain sub-themes that are useful when codifying the aspects that the researcher wants to describe or explore during the observation of the data collected (ibid.).

We will now describe the steps we took in analysing the data by using Creswell's (2014, 197) interactive data analysis approach as illustrated in Figure 13.

Figure 13: *stages of qualitative data analysis as identified by Creswell (2014)*

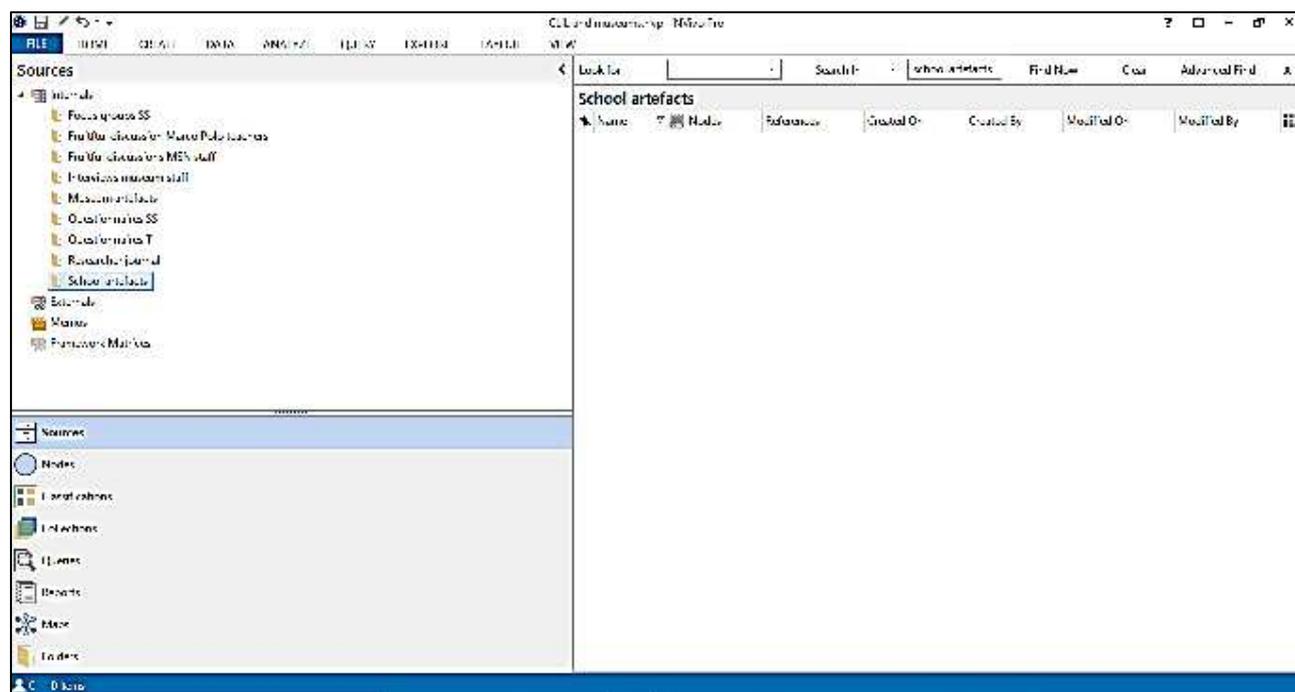


During the entire coding process, we used the *Nvivo* software for qualitative data analysis (Version 11 Pro for Windows)²⁶ to:

- Store and categorise the different types of data (see Figure 14)

²⁶ Further information on *NVivo* 11 Pro for Windows can be found at the following link: <http://www.qsrinternational.com/nvivo/nvivo-products/nvivo-11-for-windows>. See also Bazeley and Jackson's (2013) manual on how to analyse qualitative data in *NVivo*.

Figure 14: Screenshot of source folders as stored in NVivo



- Build a codebook of codes²⁷ and related descriptions (see Figure 15).

Figure 15: Screenshot of codebook and related descriptions as extracted from the project “CLIL and museums” saved in NVivo

CLIL and museums

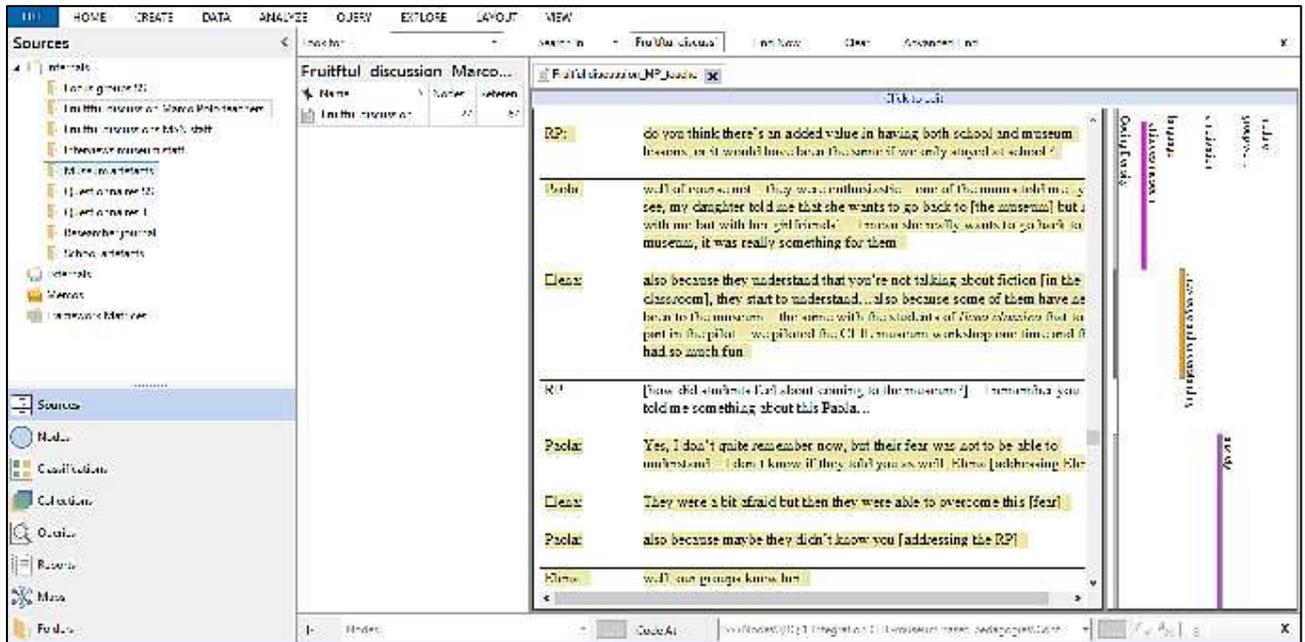
Nodes

Name	Description
RQ.1	Integration of CLIL and museum-based pedagogy
CLIL MED	Aspects related to the profile of ideal CLIL museum educator
Context	Aspects related to the context of the CLIL museum visit
code switching	Use and importance of Code switching during the visit, main language of delivery
SS	Students' previous knowledge, linguistic needs and behaviour
other factors	Other factor that might have an impact on the visit, such as museum educator's physical condition
theme	Theme chosen for the CLIL museum programme
timeline	Time allocated to the visit
T-M collaboration	Teachers' support materials and INSET

²⁷ In Nvivo the codes are called “nodes”.

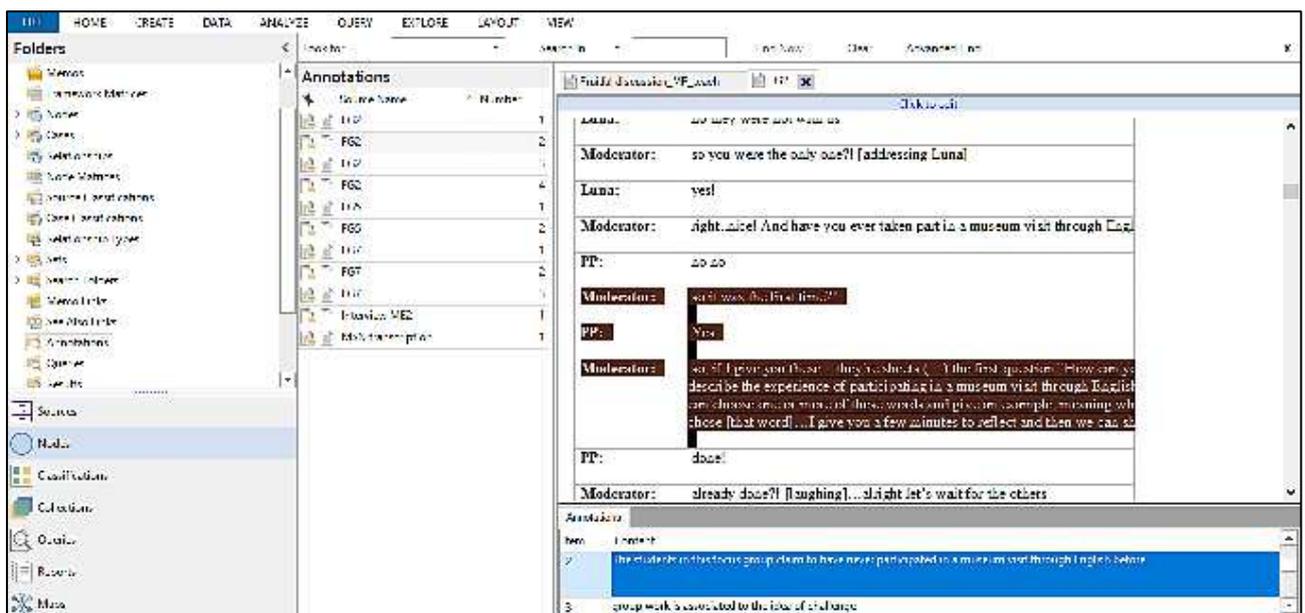
- Assign codes (themes and sub-themes) to the corresponding data chunks (Figure 16).

Figure 16: Screenshot of codes and related coding stripes as assigned to the fruitful discussion between the Researcher-practitioner and the MSN staff in NVivo



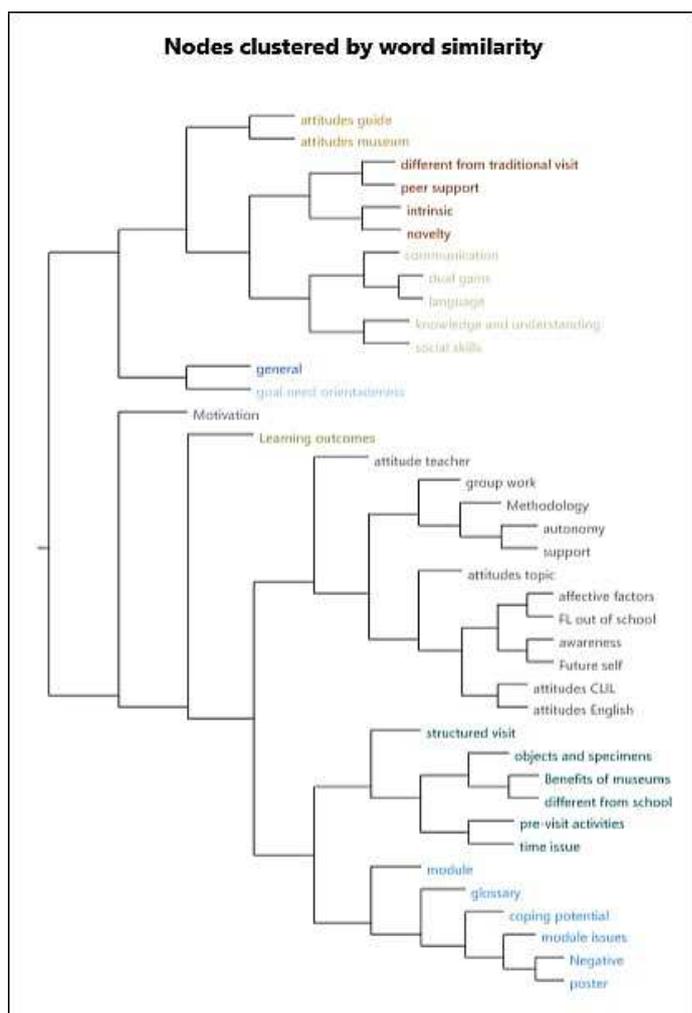
- Write memos and annotations to keep track of both the different stages of the coding process and the reflections leading to the interpretation of the results (see Figure 17).

Figure 17: Screenshot of annotation as associated to one of the Marco Polo students' focus groups (FG2) in NVivo



- Run queries to both visualise and explore how data is structured, and to further investigate the patterns and relationships in our data (see Paragraph 8.8.2.2. for a detailed description of the NVivo queries used in the current project; see Figure 18 for an example).

Figure 18: Screenshot of Cluster Analysis to visualise the relationships among nodes based on word similarity in NVivo



8.8.2.1. Step 1: Organisation and preparation of data for analysis

Before proceeding with the coding of the data, we:

- transcribed and translated from Italian into English the fruitful discussions between the Researcher-practitioner and the MSN staff, and the Researcher-practitioner and the Marco

Polo teachers, the interview with Museum Educator 2, and the focus groups with the *Marco Polo* students.

- Translated from Italian into English the written interviews with the Education Director and Museum Educator 1, the Researcher-practitioner’s journal, and teachers and students’ open-ended responses in the questionnaires.
- Catalogued the museum and school artefacts, and sorted and arranged the different sources in different folders in the *NVivo* software for qualitative data analysis.

As regards the transcriptions, we listened to each audio recording and transcribed while simultaneously translating from Italian into English. To help the process, we used the *Express Scribe Transcription Software*²⁸ in combination with a foot pedal (see Image 8):

Image 3: Screenshot of the *Express Scribe Transcription Software* and of the foot pedal used during the transcription process



During the transcription process, we used specific conventions as outlined in the “Transcription Conventions” document in Appendix N. A choice was made not to correct interviewees’ words or grammar and to maintain their speech pattern. Moreover, we did not change the content and intent of their speech, nor we put words in their mouth (see Liamputtong 2011). In so doing, we tried not to homogenise the translation, but rather to let participants’ cultural background, age, and geographical provenance (i.e. use of dialect) emerge, especially when we thought it was important for the interpretation of the data. In particular, when choosing to translate important concepts, we made sure to always use the same equivalent terms²⁹. In so doing, we aimed to

²⁸ Further information about the *Express Scribe Transcription Software* can be found at the following link: <https://www.nch.com.au/scribe/index.html>.

²⁹ For example, the Italian adjective “stimolato”, used by students to talk about their experience during the CLIL museum visit, was always translated with the English word “hooked”.

support data analysis, especially when looking for recurrent key words (see for example *Word frequency query* in Paragraph 8.8.2.2.). At the end of the transcribing process, we read through all the transcriptions and edited accordingly so as to make sure that they were comprehensible and that they used the transcription conventions coherently.

As regards the translation of the other written sources, we kept the translation as close to the original as possible, through applying the same procedures as outlined above. After they were translated, we read through the sources individually and edited them, making sure that they were comprehensible and that they used the same terminology when talking about the same concepts. Thus, we catalogued all the museum and school artefacts (see Paragraph 8.6. and Appendixes A and B), and sorted and arranged the data in different folders using *NVivo*. In particular, we divided the sources by type and participants (see Image 2).

8.8.2.2. Step 2: Coding the data

After organising and preparing the data, we read through and coded the sources taking into consideration our research questions. According to Creswell (2014, 198), coding is:

the process of organising the data by bracketing chunks (or text or image segments) and writing a word representing a category in the margins (...) It involves taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labelling those categories with a term (...).

In particular, he identifies three types of codes³⁰:

- codes on topics that readers would expect to find, based on the past literature and common sense.
- Codes that are surprising and that were not anticipated at the beginning of the study.
- Codes that are unusual, and that are, in and in themselves, of conceptual interest to readers.

According to Corbin and Strauss (2008 quoted in Bazeley and Jackson 2013, 1685), “coding in qualitative research (...) is a way of tagging text with codes, of indexing it, in order to facilitate

³⁰ As reported in Bazeley and Jackson (2013, 1679), “a code is an abstract representation of an object or phenomenon, or, more prosaically, a way of identifying themes in a text”. These concepts can be descriptive or analytical (more abstract).

later retrieval. Naming a concept or topic aids organisation of data and so assist analytic thinking”. In this way, coding helps in “recontextualising” data moving from its analysis to theorising (Tesch 1990 quoted in idem, 1691). However, Bazeley and Jackson (2013, 1770) notice how when coding through using a computer software, coding is a way of “slicing” the data, as, in some cases, multiple codes can be assigned to the same passage of text. Indeed, we sometimes applied multiple codes simultaneously to capture what was happening in a single chunk of text. In so doing, we started thinking of the data not as single sources but as themes that would help us in responding to the research questions (idem, 1781). In developing the codes, we applied the following suggestions (idem, 1877):

- we looked for the ideas that were most repeated by participants across the database.
- We asked recurrent questions of the data (see Richards’ three steps³¹ quoted in idem, 1944).
- We compared and contrasted passages of the text, thinking about how they were similar and different.
- We compared with hypothetical or extreme examples, to account for different dimensions within concepts.
- We used all three types of codes as outlined by Creswell (2014, 198).
- We took account of how things were said (discourse) by the participants as well as what they said.

In particular, as regards the discourse dimension, while we only considered the individual participants’ contribution in analysing the open-ended responses in the questionnaires and the oral/written interviews, when dealing with the fruitful discussions and focus groups, we considered three levels of analysis: the individual, the group, and the group interaction. Indeed, according to Liamputtong (2011), focus group data analysis should be more based on the themes or discourses that are jointly constructed by the participants in the group than on individual participants’ contributions. In our analysis, we thus tried to reveal not only the results of the group discussions but also the contextual and social dynamics that had likely affected them (Liamputtong 2011).

³¹ Richards (2009 quoted in Bazeley and Jackson 2013, 1944) identifies the following three questions to explore the data when developing codes: i) *What’s interesting?*, ii) *Why is it interesting?*, and iii) *Why am I interested in that?*. According to the authors, through asking these questions, the researcher is able to go from codes that only tag single passages to codes that are well represented across the data.

Throughout the coding process, we used some of the *NVivo* queries to explore and understand both how codes were represented across participants and sources, and the relationships among items (both codes and sources) in the database. In particular, we used the following queries (see Bazeley and Jackson 2013):

Exploratory queries

- *Word frequency query*: it catalogues the words used most often in the data or a subset of the data, and it is used by researchers to explore or map words used in the data, especially when Content analysis is carried out.
- *Text search query*: it searches for words or phrases, as specified by the researcher, in the data or a subset of the data.
- *Cluster Analysis query*: it provides an overview of the structure of the data, allowing the researcher to gain some distance to supplement his/her understanding arising from close reading of his/her themes (see Guest and McLellal quoted in *ibid.*). It assess the similarity of either sources or nodes, which is visually presented in a horizontal or vertical dendrogram. This tool is best used in an exploratory way to inspire ideas, rather than to explain associations.

We also wrote annotations and memos in relation to the development of the codes and of theories emerging from the combination of nodes into categories.

As regards Research Question 1, we selected the fruitful discussion between the Researcher-practitioner and the MSN staff as the most interesting, and started developing a list of codes (codebook) and assigning them to the corresponding portions of text through using *NVivo*. Then, we coded the Researcher-Practitioner's journal, the Education Director and Museum Educator 1 and 2's interviews using the codebook previously developed. In so doing, we also added new themes as emerging from the coding of the other sources. In particular, we checked whether the same combination of codes formed a pattern across participants, or whether they were a "one-off" occurrence, by using the exploratory queries in *NVivo* as outlined above. In the final stage, we reduced the total list of the themes by grouping the ones that related to each other, and modified the descriptive themes into more analytical codes.

As regards Research Question 2, we selected the fruitful discussion between the Researcher-practitioner and the *Marco Polo* teachers, and applied the same procedure for creating the codebook as outlined in relation to Research Question 1. Then, we coded the other teachers' open

ended-responses in the questionnaires. As for Research Question 1, we used the exploratory queries in *NVivo* to explore code patterns across data sources and participants. In the final stage, we reduced the total list of the themes by grouping the topics that related to each other, and modified the descriptive themes into more analytical codes (ibid.). To answer Research Questions 2, we also combined the Marco Polo teachers' perspective with that of their students. In so doing, we used the codebook previously devised for the analysis of fruitful discussion's data to also analyse students' focus groups.

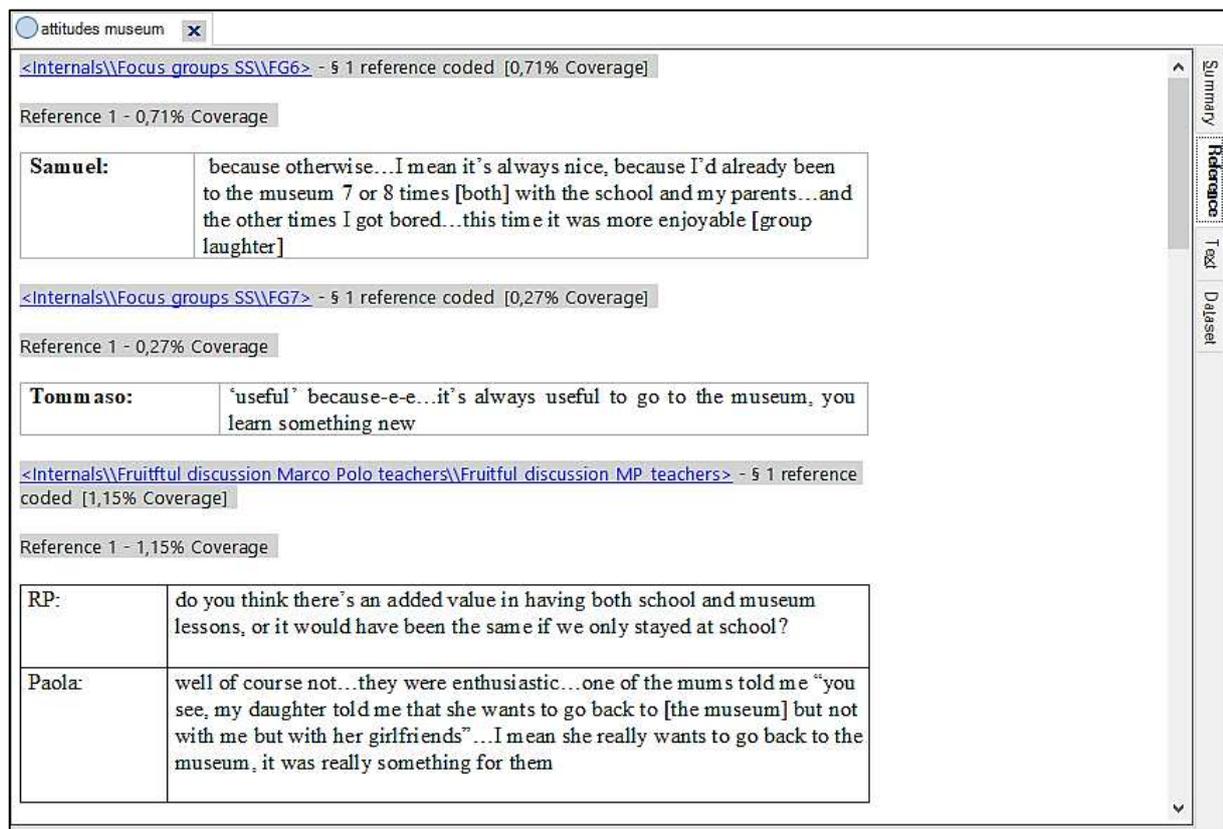
As regards Research Questions 3 and 4, our aim was to get a deeper understanding of students' quantitative responses by integrating and combining them with students' qualitative responses and focus group discussions. We selected students' open-ended responses in the questionnaires and ran a *Word Frequency Query* in *NVivo*. By doing so, we identified a list of keywords that gave us a first insight on students' responses to the CLIL museum visit. Thus, we developed a codebook of both descriptive and analytical themes, which we assigned to students' open-ended responses. Then, we coded the *Marco Polo* students' focus groups. In so doing, new themes emerged and we either integrated them in the codebook, or we modified the existing codes so as to account for the new ones. To answer Research Questions 3 and 4, we also combined students' perspective with that of their teachers and the Researcher-practitioner. In so doing, we used the codebook previously devised for the analysis of students' data to also analyse teachers' open-ended responses in the questionnaires, the fruitful discussion between the Researcher-practitioner and the *Marco Polo* teachers, and the Researcher-practitioner's journal. As for the other research questions, we used the exploratory queries in *NVivo* to explore code patterns across data sources and participants. Finally, we reduced the list of themes by clustering the similar ones together and modified the descriptive themes into more analytical ones.

8.8.2.3. Step 3: Interrelating Themes and Descriptions

In analysing the data, we combined and integrated the themes and sub-themes through triangulating the different sources of data and perspectives from the participants to answer the research questions. In so doing, we clustered the themes or codes resulting from the coding process in overarching categories for each research question. We also compared how different participants responded to that category and used this comparison to better understand and represent the relationships in and across themes and participants in our data (see Bazeley 2013 quoted in Bazeley and Jackson 2013, 4885-4886).

For each research question, we organised the results in main categories and sub-categories (themes) when appropriate. Thus, we selected the most relevant quotes among the references collected in *NVivo* for each code (see Figure 19), making sure to represent both negative and positive perspectives:

Figure 19: Screenshot of references for the code “attitudes museum” in *NVivo*



8.8.2.4. Step 4: Interpreting the meaning of Themes/Description

This phase will be dealt with in Chapter 10 when discussing the categories and themes emerging from the analysis of the data.

8.9. Research validity and reliability

To assure the quality and validity of our research project we adopted a triangulation procedure (as suggested by Burns 2009, 127), which regards the use of several data-collection instruments and the comparison of what they tell us (see Paragraph 8.6). Furthermore, we adopted the following strategies:

- We provided a detailed description of the context, so to understand its specific circumstances.
- We tried to be as objective and unbiased as possible by drawing on the data rather than our assumptions (Burns 2009, 127).
- We relied on thick and rich descriptions, in order to allow others to understand if our findings are “applicable to them or their students” (Schwalbach, 2003 quoted in Burns 2009, 127).

Despite these measures, we understand that action research is often accused of lack of replicability and generalizability of its findings (Burns 2009, 127), as it is almost impossible in action research both to reproduce the conditions of the research and to show that findings are applicable elsewhere.

Indeed, we agree that in this approach, rigour is proportional to the ability of the people engaged to “tell the story of the research as completely as possible” (Burns 2009, 127), and we did so by showing that the steps taken in the research process “are reasonable and logical” and that “the conclusions presented are well supported by the available evidence” (Burns 2009, 127).

Furthermore, to ensure the validity of our research project, we applied Anderson et al.’s (quoted in Burns 1999, 161-162) validity criteria:

1. democratic validity, which refers «to the extent to which the research is truly collaborative and allows for the inclusion of multiple voices».
2. Outcome validity, which refers to the concept of «actions leading to outcomes that are ‘successful’ within the research context».
3. Process validity, which refers to the ‘dependability’ and ‘competence’ of the research, that is, for example, the use of different sources to investigate the participants’ behaviours and so on.
4. Catalytic validity, which refers to the extent to which participants are able to understand the dynamics of their context and can make changes within it;
5. Dialogic validity, which refers to the involvement of peer researchers or ‘critical friends’ in a collaborative enquiry and reflective dialogue about the research process.

In particular, we made sure to include everyone’s voice in the research and we also discussed our data with critical friends, to further support democratic and dialogic validity. As it will be shown

in Chapter 10, the outcomes of our practice were successful within our context, despite rooms for improvement. As for process validity, we used several different sources and we tried, where possible, to triangulate our data. We also made sure all participants understood what the research was about, through discussing how it was influencing their context. We had several informal chats with students, teachers, and museum staff to understand what they thought about the research and we were happy to know that they took pride in being actively involved.

Finally, we made sure to disseminate our results through seminars, written reports, and other 'events', as suggested by Coonan (2010, 13), so as to respond to Ebbutt's (1985 quoted in Burns 1999, 27) definition of research as "systematic enquiry made public". In fact, in September 2016, we organised a seminar free of charge aimed at museum educators/staff interested in learning more about CLIL in the museum context. Forty-five professionals participated, and we started building a collaborating networks across several museums across Italy.

Although we have tried to meet the criteria for validity as closely as possible, there are certain areas of the study that could have been planned differently. For example, the researcher-practitioner could have used an assistant to collect the data during the focus groups as this would have ensured a higher level of objectivity. Also, focus groups could have been video-recorded and an effort could have been made in involving students and teachers from the other upper secondary schools in follow up interviews (see Paragraph 11.3. for a more throughout discussion of the limitations of the current study).

Despite these pitfalls, we feel our research was successful in exploring a new and interesting research context, and we hope further steps will be taken in the direction of uncovering the potential of designing and delivering non-formal CLIL projects across learning contexts.

8.10. Ethics

According to Rallis and Rossman (2009, 270), "being an ethical researcher demands vigilance and thoughtfulness throughout the entire research cycle". In fact, we placed great importance on both making our participants aware of the aims of the research and data treatment, and in treating their identities. As regards the Marco Polo Art students, informed consents were collected from both their Headmaster, and their parents, while for students and teachers in Group 2, we only sent an e-mail to the teacher, asking for the permission to administer anonymous questionnaires.

As for the museum staff and Marco Polo teachers, we agreed upfront on the research process (i.e. data collection instruments and procedures), and we strove to report and analyse data in an ethical

manner, by trying to keep a balance between the need to carry out a honest inquiry into our practices and the need to safeguard our position in the job place. As Dörnyei (2007, 66) points out, the word “ethics” comes from the Greek word “ethos”, which means “character”, and involves honesty and trust, as much as “complying with laws” (in the modern sense). In our research, building relationships based on trust and honest was pivotal to carry out all the actions, and to reflect on them collaboratively. However, it was hard at times to keep an objective eye during the data collection and analysis, as being a Researcher-practitioner also meant to have an informal as well as formal collaboration with the other participants. I often asked myself if reporting a result was really necessary when it hurt the sensibility of one of the other participants. In this sense, action research can be a dungeon, where results are veiled with many considerations, which sometimes turn themselves into chains for the researcher.

In terms of confidentiality, we decided to ensure participants’ anonymity by using codes for participants’ responses in the questionnaires (i.e. S28), and pseudonyms for the Marco Polo Art students’ focus group discussions (i.e. Enrico) and teachers’ fruitful discussion (i.e. Elena T).

9. Data analysis

In this chapter, we will present the analysis of the data collected during our research project. In Paragraph 9.1., we will outline the data analysis in relation to Research Question 1 (*What aspects need to be taken into consideration when integrating CLIL and museum-based pedagogies in the museum context?*). In particular, we will present the categories and themes as emerging from our integrated analysis of the Education Director's written interview, Museum Educator 1 and 2's interviews, the MSN staff and Researcher-practitioner's fruitful discussion, the Marco Polo teachers (Group 1) and the Researcher-practitioner's fruitful discussion, students' (Group 1 and 2) open ended responses in the questionnaire, teachers' (Group 2) open ended responses in the questionnaires, and the Researcher-practitioner's journal. The presentation of the categories and themes will be supported by a meaningful selection of quotes extracted from participants' data sources. In Paragraph 9.2., we will outline the data analysis in relation to Research Question 2 (*What aspects need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum?*). In particular, we will first outline the analysis of the quantitative and qualitative data collected through teachers' (Group 2) responses to Questions 1, 2, 4, 5, 9a and 9b in the questionnaire. Thus, we will move onto presenting the categories and themes as emerging from our integrated analysis of the Marco Polo teachers and the Researcher-practitioner's fruitful discussion, and Marco Polo Art students' focus groups.. In Paragraph 9.3., we will outline the data analysis in relation to Research Question 3 (*What impact does participation in the CLIL museum visit have on students' attitudes?*). In particular, we will first outline the analysis of students' (Group 1 and 2) quantitative responses in Part 1 in the questionnaire. Thus, to get a deeper understanding of students' quantitative responses we will combine the quantitative analysis with our integrated qualitative analysis of students' (Group 1 and 2) open ended responses in the questionnaires, Marco Polo Art students' focus groups, teachers' (Group 2) open ended responses in the questionnaire, the Marco Polo teachers' fruitful discussion, and the Researcher-practitioner's journal. In Paragraph 9.4., we will outline the data analysis in relation to Research Question 4 (*What impact does participation in the CLIL museum visit have on students' perceived learning outcomes?*). In particular, we will first outline the analysis of the data collected through students' (Group 1 and 2) quantitative responses in Part 2 of the questionnaire. Then, we will move onto presenting the analysis of teachers' (Group 2) responses to Questions 6, 7, and 8 in the questionnaires. Thus, to get a deeper understanding of students' quantitative responses we will combine the quantitative analysis with our integrated

qualitative analysis of students' (Group 1 and 2) open ended responses in the questionnaires, Marco Polo Art students' focus groups, teachers' (Group 2) open ended responses in the questionnaire, the Marco Polo teachers' fruitful discussion, and the Researcher-practitioner's journal.

In reporting the qualitative results, the categories and themes will be supported by a meaningful selection of quotes extracted from participants' data sources. Students and teachers' ID numbers (i.e. S28 and T1) will be used for the open ended responses, while pseudonyms were chosen for students' focus groups (i.e. Enrico; see Table in Paragraph) and the Marco Polo teachers' fruitful discussion (i.e. Elena T).

9.1. Data analysis in relation to Research Question 1: integration of CLIL and museum based pedagogies

Our Research Question 1 was “*What aspects need to be taken into consideration when integrating CLIL and museum-based pedagogies in the museum context?*”. To answer this question, we conducted an integrated analysis of the data collected through the museum staff's fruitful discussion and interviews, the Marco Polo teachers (Group 1) and Researcher-practitioner's fruitful discussion, students' (Group 1 and 2) open ended responses in the questionnaires, teachers (Group 2)' open ended responses in the questionnaires, and the Researcher-practitioner's journal. Four different categories emerged from the data analysis: Vision, Context, the CLIL museum programme methodology, and the CLIL museum Educator profile.

9.1.1. Vision

The first category that emerged as important when reflecting on the integration of CLIL and museum based pedagogies is *Vision*. This category refers to the reasons that encouraged the staff of the Foundation Civic Museums of Venice to learn about and employ CLIL to fulfil their educational goals and agenda.

In discussing why the previous museum learning programme through English “*Treasure hunt*” (see Paragraph 6.1.2.) had not been satisfactory, the MSN staff claimed that both its contents and English teaching methodology were below their expectations:

Extract 1: *Fruitful discussion with MSN staff*

MSN Educator 2: it was a workshop that had young children as the target, but we wanted something in English targeted at older students, and they sort of adapted it, but it was too simple, it didn't provide you with new contents nor with new words-

MSN Educator 1: (overlapping) it was poor in terms of contents

MSN Educator 2: yeah, exactly...it wasn't working

MSN Educator 1: and I also feel that it wasn't based on an efficient English teaching methodology...I mean after we understood what CLIL modules look like, we also understood what the language objectives should be... while that one [the previous workshop] lacked both, it was like a taste of...of creating a language...but maybe it was also because of the rooms (...) it was a bit poor when compared to the school curriculum

While the extract above shows that the MSN staff had a clear idea of the dual focus of CLIL, both language and content, it is undeniable that content, in this case science, held a primary role for them. In fact, MSN Educator 2 explained that the content and language objectives of the “*Treasure hunt*” were not correctly balanced, and the contents suffered:

Extract 2: *Fruitful discussion with MSN staff*

MSN Educator 2: it was dramatically simplified only because it was in English and the contents suffered

MSN Educator 1 compared the CLIL museum programme on *Exploring the Lagoon* to the one on *Animal Classification*, and claimed that the latter responded better to the reasons why they were interested in offering a CLIL museum programme in the first place:

Extract 3: *Fruitful discussion with MSN staff*

MSN Educator 1: yes, there are certain things that don't really work, while the one on the Lagoon works quite well [as a whole]...even from the perspective of our [museum] objectives...I've always liked the fact that students could tell about their territory even in English, given the fact that they more and more take part in exchange programmes, so to be able to tell where they live, it's nice...and I think this works...to have a vocabulary that can narrate the territory where you live is certainly an added value...so between the two topics, the one on the Lagoon makes more sense in comparison with the one on homology and analogy

In the extract above, MSN Educator 1 sees CLIL as a tool to promote students' awareness of the territory and ability to communicate it to their international peers. However, the introduction of CLIL was also seen as necessary for the museum, when fulfilling its role of supporting teachers' delivery of the school curriculum:

Extract 4: *Written interview with Education Director*

Education Director: The introduction of CLIL involved and is still involving a great effort on the part of teachers to respond to the curriculum changes, and not always they have been able/are able to do so. Museums, when the appropriate pedagogical approach is used, can be incredible tools to support learning.

In the extract above, the Education Director referred to the issues that teachers across Italy are encountering in responding to the formal introduction of CLIL in the school system. In so doing, she also pointed out that museums can play a supporting role in this scenario, as they are multimodal and multisensory settings:

Extract 5: Written interview with Education Director

Education Director: [museums] are characterised by two linguistic systems, that of images and that of things, and this allows them, through adopting the appropriate methodology, to be both spaces and tools to develop and improve a FL, through integrating contents and language.

When further analysing why the *Treasure hunt* in English had been unsuccessful, the MSN staff claimed that the main issue was that the external educators involved in its design had a scarce knowledge of the museum context:

Extract 6: Fruitful discussion with MSN staff

MSN Director: also because they had planned it with little knowledge of the-

MSN Educator 2: (overlapping) museum...yeah but that's [understandable]

Exceptional knowledge of the museum context and of its dynamics was for the MSN Director a key ingredient of any new experimentation, and something that could be accomplished only through bottom-up partnerships and collaborations:

Extract 7: Fruitful discussion with MSN staff

MSN Director: (...) at my age I think that it will never be this way, because in a web dynamic reality the experimentations that really work are the ones that are designed in a bottom-up manner and they work and can influence directions

Moreover, the MSN Director well underlined that only through collaborating with different institutions, and especially with the university, the museum can become aware of new tools, such as CLIL, and of how to use them to design, test and validate new learning programmes:

Extract 8: *Fruitful discussion with MSN staff*

MSN Director: (...) so I'm starting to believe that [bottom-up] relationships is an added value of efficient museums and schools...[it's important] to build a web of relationships, and be able to communicate with the University, with research... we can build collaborations through which tools can be designed, tested, and validated and can become important and be disseminated and later acquired and recommended by the Ministry or whatever...so (...) thanks to our experience, we're now aware that [it's not that important where the idea comes from], because sometimes if you don't know the tool you don't know it exists, but when you encounter it a light goes on and you start thinking "this is an instrument that I can use to speak to a certain audience, to make them use English, to do things that I wanted to do but I couldn't, to do it with older students in a certain way" (...)

9.1.2. Context

Another category that emerged as important when integrating CLIL and museum based pedagogies is *Context*. With this category we refer to the aspects related to the importance of collaborating with different institutions, the choice of an appropriate museum and theme, taking into consideration the one off nature of any museum learning experience, and the school-museum collaboration in developing and delivering a CLIL museum programme.

According to the MSN staff, the collaboration with the Researcher-practitioner, who had different but complementary skills, was pivotal when designing the CLIL museum programme on Animal Classification:

Extract 9: *Fruitful discussion with MSN staff*

MSN Educator 1: (...) I really think the value lied in the fact that we planned it together, the fact that we had different competences-

MSN Educator 2: (overlapping) true [nodding]

MSN Educator 1: ours and yours [addressing RP], and so to reflect together from the beginning (...) then you can focus more or less strongly on the contents (...)

MSN Educator 1 reiterated the same concept later on in the discussion, highlighting that the only way to address the dual goals of CLIL is to work with someone that has the methodological and linguistic expertise:

Extract 10: Fruitful discussion with MSN staff

MSN Educator 1: but it was useful to have both the competences so as to create a product that addresses both objectives, otherwise you miss one

Another aspect that emerged as important when designing a CLIL museum programme was the choice of the museum where to implement the programme. In the interview with Museum Educator 2, she explained how there are certain museums that would not be appropriate for this particular type of learning experience:

Extract 11: *Interview with Museum Educator 2 (ME2)*

ME2: I'd never do something like this at the *Doge's Palace*, not even with a gun pointed to my head, because there are too many people, too much commotion and you also have to share the space with the tourist guides that get very cranky if you make too much noise...even the invigilators, they're much more understanding at *Ca' Pesaro* and *Ca' Rezzonico*, while they're not at the *Doge's Palace*, even if it's the same people, because you have to behave in a different way, even though some teachers would have liked to go to the *Doge's Palace!* (...)

RP: so you think there are museums-spaces that are more appropriate for this type of activity than others [prompting to expand]

ME2: yes, I'd say that all the museum are appropriate if they don't have that many people crammed together, but it also depends on the design of the exhibition...I'd never do it in the *Correr*, for example, because it's sort of a Wunderkammer, and there's no space to move

Museum Educator 2 particularly agreed with the choice of *Ca' Rezzonico* and *Ca' Pesaro* among the other Civic museums of Venice for delivering the CLIL museum art programmes, because they both offer a quieter and more relaxed atmosphere than the very touristy museums, and their exhibition design allows students to move more freely in the museum galleries. However, she also pointed out at the collection and the complexity of its subject matter as an aspect to take into consideration when delivering CLIL in the museum:

Extract 12: *Interview with Museum Educator 2 (ME2)*

ME2: in the rooms, they're full (...) I wouldn't find them appropriate (...) the spaces are narrow and everything's in the corridor...so I think that the idea of offering the CLIL museum programmes at *Ca' Rezzonico* and *Ca' Pesaro* is excellent, and it would be quite interesting to think about the *Glass Museum*, even though it's quite complex, because the glass has a very specific lexicon, and it was hard for me as well, so maybe it would be [appropriate] only for upper secondary schools because it's too specific

The difference between the school classroom and the museum also lies in the very fact that the learning activity can often be interrupted or modified because of the presence of other groups and/or individual visitors. For example, in Entry 11 of her journal, the Researcher-practitioner noticed that:

Extract 13: *Entry 11 in Researcher-practitioner's (RP) journal*

RP: The students skipped the third room, the one with the Ichthyosaur because it was full of kids, and they never went back to finish the listening activity.

Moreover, we also need to consider that the presence of valuable objects and specimens makes it necessary for museums to adopt security measures that not always are in support of “learning”. For example, in another of her journal logs, the Researcher-practitioner discussed the negative impact that not allowing students to sit on the floor had on the CLIL museum visit. In so doing, she also reported the invigilators' comments and behaviour as sometimes disruptive of the positive learning atmosphere:

Extract 14: *Entry 6 in Researcher-practitioner's (RP) journal*

RP: I also found it really heavy not to be able to allow them to sit on the floor (security reasons). Half of my mental energy goes into keeping an eye on how students move around the objects, making sure they don't irritate the invigilators. "Don't get too close to the art works, don't lean on the walls".

As regards the choice of the theme, after the implementation of the CLIL museum programme on Animal classification, the MSN staff came to the conclusion that this particular theme was not suitable to be delivered in CLIL:

Extract 15: Fruitful discussion with MSN staff

MSN Educator 2: the one on the Lagoon was easier both to design and to [deliver] to the students

MSN Educator 1: yes, I think that at the beginning we didn't choose the right [topic]

Indeed, the MSN staff claimed that the topic of homologous and analogous structure is difficult even when taught in Italian, because it is both unfamiliar to students and cognitively demanding:

Extract 16: Fruitful discussion with MSN staff

MSN Director: you have to talk about something easier because we also need to think about the fact that this aspect, the fact that although two animals look similar it doesn't mean that they are phylogenetically related, is still taught badly [in school]...lots of manuals still describe it in the wrong way, even today

MSN Educator 1: it's heavy even in Italian

MSN Educator 2: it's tiring even in Italian

Of the same opinion were the Marco Polo teachers and students when reflecting on why so few students had chosen the museum theme as the topic for their school poster:

Extract 17: Fruitful discussion with Marco Polo teachers

Paola T: yes, it was a challenging topic

Stefano TA: yes, it was a challenging topic

RP: why do you think it was challenging?

Elena T: because it was a challenging concept...analogous and homologous

Stefano TA: I agree

Extract 18: Focus group with Marco Polo Art students (FG 4)

Moderator: why do you think so few people chose that topic?

?: the one we dealt with at the museum?

Moderator: yes, “homology-analogy”

Giulia: I think people got scared about the [number of questions]

Maria: not because of the topic itself...

Paolo: I think it was a bit more complex [than the others]...

Sandro: mmm [yes, I agree]

Rebecca: especially if you have to do it in English...forget about it!

When comparing the CLIL museum programme on Animal Classification with the one on the Lagoon, both the Researcher-practitioner and the MSN staff agreed that the latter was more suitable to be delivered through CLIL at the museum, because the topic is more intuitive and familiar for students:

Extract 19: *Fruitful discussion with MSN staff*

RP: I think it's a bit more intuitive

MSN Educator 2: yes, intuitive

RP: because you talk about-t...

MSN Educator 2: an environment

MSN Director: (overlapping) an environment...you talk about something that it's easier

MSN Educator 1: (overlapping) easier

RP: yes, exactly

MSN Director: so you start from a concept that is already complex and that they're not really familiar with, while the fact that the lagoon is an ecosystem which consists of both sea and rivers is a concept that not only is cognitively easier to understand but it's also more familiar, because you know that [the lagoon has] canals-

MSN Educator 1: (overlapping) yes, but also even if you don't know this, to describe an environment is certainly easier, even if they had to describe a glacier

It is the one off nature of the museum experience that makes it necessary to choose a theme that is cognitively affordable, but also easy to integrate in the school curriculum. In this regard, MSN Educator 1 also expressed the need to involve teachers when designing a new educational programme, especially when an L2 is involved:

Extract 20: *Fruitful discussion with MSN staff*

MSN Educator 1: (...) for example, there's this educator that teaches Italian as an L2 and she came with a group of migrants to the museum and now, even just to choose the right topic, before we even think about it, [it would be good] to meet up with her and listen to their needs, it would add value to our [work]...I mean this is the first step I would now take if I had to think about [a new educational programme]

According to MSN Educator 1, asking teachers to express their needs and to brainstorm ideas about the theme and contents appropriate for the target is a step she felt should not be missed:

Extract 21: *Fruitful discussion with MSN staff*

MSN Educator 1: (overlapping) yes I wouldn't really involve them in the planning stage, but to listen to their needs could be our first step-

Another aspect that is of particular importance here is the school-museum collaboration. In particular, participants reported that teachers often play a passive role during the museum visit in both CLIL and non-CLIL museum learning activities:

Extract 22: *Interview with Museum Educator 1 (ME1)*

ME1: Most of the time, they mind their own business and leave the workshop. Then in the end, they pay you compliments for the little they've seen/experienced. They very rarely participate in an active way, and in this case they usually support students' [understanding].

Museum Educator 2 seemed to agree with Museum Educator 1, but expanded by saying that the way teachers act during the visit and the requests they make change depending on the subject taught:

Extract 23: *Interview with Museum Educator 2 (ME2)*

RP: what role do they usually play during the visit?

ME2: passive listeners and also-o-o...if there's an English teacher- well first of all I had an art teacher once that asked me to talk about something they had done in class and to explain it better always in English or teachers that after my visit would stay in the museum with the students and explain them other works of art

RP: ok

ME2: with the English teachers...they would walk around the groups, give out some suggestions like I do...they also reprimand them A LOT [saying] "but WE DID THIS IN CLASS", poor them they did so many other things in class the previous week

According to Museum Educator 2, English teachers have a tendency to be more active facilitators during the workshop, through supporting students working in groups. However, it is also interesting to notice that content teachers have a tendency to focus much more on the contents than on the interaction and on the development of students' FL skills. Moreover, Museum Educator 1 argued that, in his opinion, only in some cases, content teachers seemed to be aware of the principles at the basis of the CLIL methodology:

Extract 24: Interview with Museum Educator 1 (ME1)

ME1: They almost have no role at all, or they try to help students, and often not in a correct way. Very rarely, they understand the [pedagogical] underpinnings of CLIL and ask them questions in English to help the students.

The same situation was reported by the Researcher-practitioner in her journal, when she pointed out that content teachers often tended to focus students' attention on specimens of particular interest through using Italian instead of English:

Extract 25: Entry 7 in Researcher-practitioner's (RP) journal

RP: The other teachers sometimes distract them by asking them to observe other things [specimens] and talking about them in Italian. What's the focus of the visit? Do

we have the same agenda? Is mine wrong? Or maybe I didn't communicate it that well.

In the extract above, the Researcher-practitioner wondered whether she and the teachers had the same agenda, and whether she was able to well communicate the aims of the CLIL museum workshop. The importance of creating an immersion like atmosphere was explained by the Researcher-practitioner in the extract below:

Extract 26: *Entry 9 in Researcher-practitioner's (RP) journal*

RP: Sometimes I feel stressed about not knowing the students and having to talk to them in English. To me it's important to create an immersion like linguistic environment but it's difficult when the other teachers talk to them in Italian. I wish I could keep the students always concentrated on speaking in English. Maybe always talking in English takes away a bit of the spontaneity of the interaction, but I feel like, after a while, the students get used to it and start pushing themselves to use it more.

The same point was made also by Museum Educator 2:

Extract 27: *Interview with Museum Educator 2 (ME2)*

ME2: actually, at the beginning, I introduce myself in English also to the teachers because then it's easier for me, not because I want to sound English [native], because I tell them that I'm not English, but because it's much more difficult for them to interact with someone that at the beginning talked in Italian, because they say "well, she knows Italian, she speaks it", while if they never hear me talking in Italian except for when I translate the words, then for then it's easier, because they see it as less fake...in my opinion...easy psychology

Thus, both Museum Educator 2 and the Researcher-practitioner highlighted the importance of keeping English as the main language of interaction. In this scenario, the Researcher-practitioner reported how making her agenda clear to the teacher from the very start turned out to have a positive impact on the way teachers approached students during the visit:

Extract 28: *Entry 2 in Researcher-practitioner's (RP) journal*

RP: The Italian teacher talked to me in Italian, but I responded in English because the students were listening to us, and I wanted to keep my golden rule of only talking in English in front of them. Later, while the students were waiting in line for the bathroom, I asked the teacher in private if it was ok for me to approach her in English and she was enthusiastic about the idea (she later interacted in English with her students as well as with me in the plenary sessions during the visit).

In fact, Museum Educator 2 pointed out that making teachers aware of the format of the visit before it starts is an important step for the development of the visit itself, but this may also depend on teachers' subject knowledge:

Extract 29: *Interview with Museum Educator 2 (ME2)*

ME2: things that are similar-r... well the relationship with the teachers...I always try to make them relaxed, explaining them how it works before we start, and they almost often act as passive listeners, also because, as you said, most of the times they're not the art and language teachers...I've seen so many math teachers...they must be the nicest

RP: I've seen a bit of a mixture (...)

ME2: with me it's 50/50, I mean in half of the cases you had an art or English teacher accompanying the group and in the other half they were of other subject

From this perspective, the Education Director pointed out that teachers have diverse profiles, and while some are competent and behave actively during the visit, others are less so and play a more passive role:

Extract 30: *Written interview with Education Director*

Education Director: You encounter people with very diverse personalities and professionalism when you work with teachers, as they have different competences, motivation, presence (or not) of a clear pedagogical methodology. Some of them are motivated but adopt methodologies that are not compatible with the ones we propose, some are not motivated at all, and others are not very competent. Some are really good. However, they behave very differently during the museum learning activities: there are those that can't wait to "abandon" the students for two hours and to "disappear", those that spoil the wonder and surprise, which we think are the most important ingredients to engage students, through preparing them in a boring and incorrect way, often resulting in students being bored upfront.

The interesting point that the Education Director made in the extract above is that, in some occasions, teachers over prepare students for the museum visit, and, in this way, reduce students' wonder and surprise that would result from engaging with the museum objects. Indeed, she claimed that the ideal teacher would be the one that does not prepare the students before the visit, and that is able to exploit the inputs provided during the museum visit by expanding and integrating them at school afterwards:

Extract 31: *Written interview with Education Director*

Education Director: The ideal situation would be having a teacher that is attentive during the museum workshop and that does NOT prepare the students before the visit, but uses the tools and stimuli offered during the museum experience to provide students with follow up learning activities in the classroom in line with the school objectives.

However, the Researcher-practitioner expressed a different opinion in Entry 2 of her journal, by pointing out that a well thought preparation is pivotal for students' active engagement with the museum contents through English:

Extract 32: *Entry 2 in Researcher-practitioner's (RP) journal*

RP: (...) my feeling is that the quality of the visit, both in terms of contents and language produced, could improve dramatically if the same contents and language were integrated into the school curriculum with pre- and post-visit activities that used different kinds of texts of the art discourse as their inputs. The museum visit is too short and I feel the students do not really have the time to get acquainted with the materials. Even though they showed very good listening skills and were able to participate in the tasks, I could see they were somehow confused about what they were supposed to do.

In Chapter 10, we will discuss how the presence of a preparatory phase before the CLIL museum visit should not be questioned, but designed taking into consideration the real linguistic needs of students and the short duration of the CLIL museum visit. In fact, the MSN staff pointed out that, given the one off nature of any museum learning experience, the CLIL museum visit should work as a supplement to the CLIL delivery at school:

Extract 33: *Fruitful discussion with MSN staff*

MSN Educator 2: but also because I think that here in the museum we can give a "taste" of CLIL

MSN Educator 1: (overlapping) true

MSN Educator 2: that they should already- I mean, we are the "added value" of a module that they should already be developing-

MSN Educator 1: are you talking about the schools now? [addressing MSN Educator 2]

MSN Educator 2: yes for the schools...I mean we deliver two hour CLIL

MSN Educator 1: but it's two hours [in dialect with emphasis]

MSN Educator 2: but it's two hours [in dialect with emphasis], so we have the specimen that is cool, but it's part of a longer [educational] path, so they [teachers] have their goals and [our role is] to help them, I'm not sure how to explain this

In this scenario, when reflecting on the support to offer teachers to integrate the CLIL museum workshop in the school curriculum, the Education Director felt that both the Teacher INSET and the Teacher documents sent after the booking are effective tools:

Extract 34: Written interview with Education Director

Education Director: As regards our CLIL museum programmes, I observed less issues, and I believe that the training workshop we offered teachers last September was useful. I'm inclined to offer it again. An alternative could be that of providing the teachers that have already booked the activity with tools (such as the teaching materials we sent them last year) to help them design CLIL modules.

Another important aspect to consider is the fact that teachers often underestimated the demands of participating in a CLIL museum visit for students and failed to capitalise on its educational value by booking multiple visits to other museums and institutions on the same day:

Extract 35: *Interview with Museum Educator 2 (ME2)*

ME2: I'd never consider to do another activity after this one...I think the students already accomplished what they were supposed to...it's not [feasible] that "yes, after this we take them to the Guggenheim and then to the Biennale" [laughing in astonishment]

RP: [laughing]

ME2: how can they do it? It's impossible right?! I for example learnt that when I deliver a visit to people affected by Alzheimer, I can only deliver that one, I can't have another one after that, because I feel drained

The fact that participating in a CLIL museum programme is both physically and mentally tiring for students was also reported by the Researcher-practitioner:

Extract 36: *Entry 5 in Researcher-practitioner's (RP) journal*

RP: Students were a bit tired because they had a two day excursion in Garda and around Venice. They got to Ca' Rezzonico after visiting another museum. I was actually impressed they were able to engage in most of the activities through English.

In explaining the reason why teachers tend to book visits to more than one museum in the same day, Museum Educator 2 claimed that:

Extract 37: Interview with Museum Educator 2 (ME2)

ME2: because this way they can justify to parents the costs of the trip...they saw the *Doge's Palace*, the *Correr* museum, the *Guggenheim* and also the *Biennale*...AND we also took a walk around Venice...and parents are obviously happy that they've seen all these things...students will hate Venice for ever and will never want to come back...I mean it's a torture...I'd hate it too if they obliged me to do something like this...it's not physically possible...you're tired, your legs hurt, your arms hurt, you're thirsty, you're hungry, you can't seat down

The fact that teachers have to justify to both the school administration and parents the reasons behind the organisation of the museum trip sometimes is also related to them having the wrong expectations. In the extract below, Museum Educator 2 claimed that teachers often request to see the entire museum, and are not happy to be presented with only a selection of museum objects, rooms, and activities. While this has not yet happened with the CLIL museum visits, she felt it is only a matter a time:

Extract 38: *Interview with Museum Educator 2 (ME2)*

ME2: it hasn't yet with the CLIL programme, but it's just a matter of time, that the teachers complain because what we propose during the CLIL museum workshop is only a careful selected number of works of art, while they want to see the entire museum and they don't care if the students won't remember anything...but they don't care as long as they can demonstrate, on a piece of paper, that the students have actually seen those things.

Finally, in trying to define the methodology to use in a CLIL museum workshop, the Education Director claimed that the point of a museum visit is not that of giving notions, but that of encouraging students' creative and cognitive thinking, while also promoting their curiosity and interest:

Extract 39: *Interview with Museum Educator 2 (ME2)*

Education Director: Practical techniques for a cooperative and active pedagogy: in my opinion, a museum learning workshop only makes sense if it's delivered in this way. The museum learning workshop should not be used to "shower" students with notions/information, but to provide them with stimuli, connections, and ideas and to spark new interests so as to encourage them to follow-up with more in depth study.

9.1.3. The CLIL museum programme methodology

Another theme that emerged as important when reflecting on the integration of CLIL and museum based pedagogies is the *methodology*. With this theme we refer to the positive and negative aspects related to the overall methodology and structure of the CLIL museum visits, the activities and worksheets, the use of the ICT, and the time allocated for the visit.

When asked about the aspects that she found satisfactory about the CLIL museum programmes, the Education Director replied that she was particularly proud of:

Extract 40: Written interview with Education Director

Education Director: The added value of the museum experience, the right balance we were able to establish between language and contents, and the materials [worksheets] we designed.

However, finding the right balance between language and contents was not always an easy task though. For example, MSN Educator 1 said that:

Extract 41: *Fruitful discussion with MSN staff*

MSN Educator 1: but also the ability to understand the materials [worksheets] that you give because...when you start working from well-designed materials [worksheets] then you can start from them and expand (...) and to design them [sigh and looking at MSN Educator 2] we started with a lot and we reduced it progressively

Museum Educator 1, for example, expressed his perplexity about the dual goals of CLIL, and the necessity of scaffolding students' comprehension of the museum contents with multiple techniques:

Extract 42: Interview with Museum Educator 1 (ME1)

ME1: The major risk of the CLIL activities is that, when you want to focus on both language and content, you might not be able to transfer neither. Only by providing [students] with lots of exercises, corrections, experiments, and practical activities you can partially avoid this risk.

Despite the efforts, the activities and worksheets created were not always exempt of problems. According to one of the Marco Polo Art students, while the museum was beautiful, some of the activities in the CLIL museum programme on Animal classification should have been designed better:

Open ended response: *S163 (Group 1)*

S163: Because the museum was really beautiful but the activities should be designed better

For example, during FG 5, the Marco Polo Art students claimed that the Colouring activity in Worksheet 1 (see Image 10; Appendix A) of the CLIL museum programme on Animal classification felt a bit pointless:

Extract 43: *Focus group with Marco Polo Art students (FG 5)*

Moderator: so you liked the fact that there were different activities? And it wasn't always the same...

Gemma: yes (pause) even though I didn't get the reason behind colouring the body parts- the parts of the arm

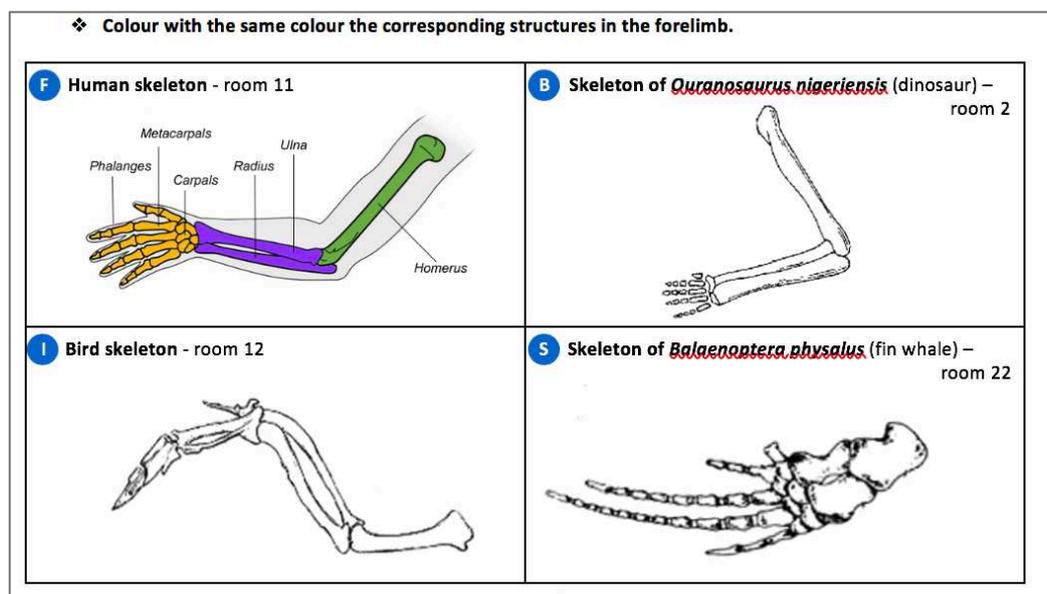
Moderator: did it feel strange at the beginning?

Julie: it felt very futile...so we didn't-

?: yeah

Gemma: yeah, futile but we weren't really able to do it though [sarcastic]

Image 4: *Colouring activity in Worksheet 1 of the CLIL museum programme on Animal Classification*



Because this particular activity was too easy for students, they did not get the point of it and felt it was a bit ambiguous. In the fruitful discussion, the MSN staff and the Researcher-practitioner came to the same conclusion:

Extract 44: *Fruitful discussion with MSN staff*

- MSN Educator 1:** it's nice...maybe the part in which you have to colour is not that suitable, because it's a bit useless for upper secondary school students
- RP:** Museum Educator 1 suggested to ask them to draw the limbs [instead of just colouring]
- MSN Educator 2:** [nodding]
- MSN Educator 1:** mm mm
- RP:** because at least they have to look at it [the specimen]
- MSN Educator 2:** true

The point made in the extract above was that the Colouring activity was not really appropriate for upper secondary students, but, at the same time, it also did not fulfil the goal of encouraging students' observation of the specimens. We came to the same conclusion in relation to the Listening activity in Worksheet 1:

Extract 45: *Entry 7 in Researcher-practitioner's (RP) journal*

- RP:** After the pilot, we decided to change the first activity, adding a trick to persuade students to observe the specimens. In fact, we realised that the students listened to the audios once arrived in the room but didn't look at the objects, basically missing the point of being in the museum in the first place.

We thus decided to modify the listening activity (see Image 11) by adding a request that would persuade students to find and observe the specimen before listening to the corresponding audio:

Image 5: Listening activity in Worksheet 1 of the CLIL museum programme on Animal Classification

Worksheet n.1



OBSERVE: ANALOGOUS AND HOMOLOGOUS STRUCTURES

❖ Observe the specimens, listen and complete the sentences with the missing words in the box below.

A _____ (sperm whale) - room 1. **Look up and find its scientific name.**
 Cetaceans are the _____ that have best adapted to aquatic life. The forelimbs of the sperm whale are modified into _____, which allow it to control both stability and swimming direction.

C _____ (ichthyosaur) - room 5. **Find it and write its scientific name.**
 Ichthyosaurs are extinct _____ that had a hydrodynamic shape similar to that of a fish. Their flippers were supported by the bones of their _____.

G Fishes - room 12. **In which cabinet are they?** _____
 In _____, fins differ by shape and position. They are made of bony or cartilaginous rays and allow fishes to control both stability and _____ direction.

N Insects - room 17. **Find an insect and write its scientific name.** _____
 _____ are the only flying animals that have four _____. They are specialised structures, which differ by shape and dimension depending on the group they belong to.

O Bats - room 17. **Find a bat and write its scientific name.** _____
 Bats are _____ mammals. The fingers of their forelimbs are very long and support their wings made of _____.

P *Dimorphodon*, sp. (pterosaur) - room 17. **Find it and write its scientific name.**
 Flying reptiles had a big but light _____. Their wings were made of skin and were supported by only one _____ of the forelimb.

fishes, flippers, flying, limbs, cranium, insects, mammals, finger, wings, skin, reptiles, swimming.

An activity that had a similar issue was the Listening activity based on Gianbattista Tiepolo's *Nuptial Allegory* (1757) in the CLIL museum art programme at *Ca' Rezzonico* (see Appendix A). In particular, the activity asked students to look at the fresco on the ceiling, while listening to the museum educator's analysis, and write down the name of the symbols as represented in the allegory. However, to keep looking up and down and write at the same time resulted difficult for the students as reported by the Researcher-practitioner in the following entry of her journal:

Extract 46: *Entry 2 in Researcher-practitioner's (RP) journal*

RP: I did not manage this activity well. If I ask them to look at the fresco, I cannot ask them to also write the symbols down on the activity sheet. How could I change this activity?

The same perception was reported in one of the following visits, in which teachers suggested to use a mirror to look at the ceiling:

Extract 47: Entry 5 in Researcher-practitioner's (RP) journal

RP: The activity with the fresco was difficult for them and the teachers suggested using a mirror to look at the ceiling, as it was difficult to look at it for a long time.

This activity was followed by another one in which students, divided in groups, had to choose their favourite symbol, draw it on the activity sheet and describe it to the others. The activity had the goal of helping students relate to the fresco on a personal level and, at the same time, reflect on the role of symbols and how they change across history. However, the Researcher-practitioner noticed how students felt very confused about this activity, despite showing a bit of interest towards the end:

Extract 48: Entry 2 in Researcher-practitioner's (RP) journal

RP: I was enthusiastic about this activity but it ended up being a flop. I asked students to discuss their symbol in small groups, but most of them didn't have any idea of what symbol to choose. A couple of students drew a football ball and said they loved sport, one student drew the chi symbol, another chose a Mexican symbol. However, the majority was a bit confused about why they were doing this activity in the first place. The only thing that seemed to engage them a bit more was when I told them how symbols change through history and across cultures and I gave them the example of the swastika (negative in the western world because of the Nazi Empire, but positive in South America).

Eventually, we decided to modify both activities. We replaced the Listening with a three step exploration of the fresco - step 1 (observation and first analysis through identifying the real figures in the fresco), step 2 (analysis and description of the other figures as carried out by the museum educator), and step 3 (students write down the names of the figures in the boxes in the *activity book*) - (see Image 12). On the other hand, we replaced the symbol drawing activity with a simple

open ended question (*Is it easy to understand what the fresco is about? Why?*) - that would leave room for further discussion (see Image 12).

Image 6: Final version of activities on Gianbattista Tiepolo's *Nuptial Allegory* (1757) in the CLIL museum art programme at Ca' Rezzonico (upper secondary)

2. Flying Horses and other Visionary Creations

When you look carefully at the sky as depicted by Giambattista Tiepolo, you can see that there are **real people** – such as the bride and groom, Ludovico and Faustina, shown in a magical chariot drawn by flying horses – but also that there are **other** figures which look like ordinary people but do not depict real individuals.



In fact, those figures are intended to represent a particular **quality** or **virtue**. **Fame**, for example, is shown blowing a trumpet; **Truth** is holding a golden sun; **Worthiness** has a crown of laurel leaves (and a banner which bears the family crests of the bride and groom). There are also the **Three Graces**, beautiful young women here depicted lying on a cloud, and a number of little cherubs. These winged infants are sometimes depicted blindfolded because love is said to be "blind".

Can you identify these figures?
When you do, write their name in the boxes.

Now talk to your partners: is it easy to understand what the fresco is about? Why? _____

Any words you don't know? Ask your guide!

7

Other activities were modified because they were both cognitively and linguistically too difficult. An example is the Definition of homologous and analogous structures in Worksheet 3 of the CLIL museum programme on Animal classification. In fact, in Entry 7 of her journal, the Researcher-practitioner claimed that:

Extract 49: Entry 7 in Researcher-practitioner's (RP) journal

RP: In relation to the second part, to build the definitions of homologous and analogous structures with the students resulted too complex and too time consuming. Thus, MSN Educator 1 and 2 suggested to use the key words I used to scaffold the definitions and design a cloze in which to insert them.

After the pilot, this activity was in fact modified into a *cloze*:

Image 7: Activity on analogous structures in Worksheet 3 of the CLIL museum programme on Animal Classification

Worksheet n. 3

msn
museo di storia naturale
venezia

RECAP: ANALOGOUS AND HOMOLOGOUS STRUCTURES

❖ Complete the phrases in the boxes and match them with the specimens observed in the museum (first exercise of worksheet 1).

Animals that _____ and have a light body and load bearing structures (wings).

Animals that _____ and have developed hydrodynamic shapes and pushing structures.

Sperm whale

Bats

Fishes

Insects

Pterosaur

Ichthyosaur

❖ Complete the sentence using the terms *different, same, similar*.

ANALOGOUS STRUCTURES

_____ structures that are present in _____ groups but have evolved independently as a response to the _____ adaptive stimuli.

The activities that involved a discovery element, such as that of looking for the eyes in Rosalba Carriera’s portraits in the CLIL museum programme at *Ca’ Rezzonico* (see Image 14), and that of looking for the corresponding shapes of Arturo Martini’s sculptures in the CLIL museum programme at *Ca’ Pesaro* (see Image 15) were the most successful across age groups and language levels. In Entry 6, the Researcher-practitioner noticed that when students were asked to find the differences in the art works, by working in groups, through an added element of discovery, they were very engaged:

Extract 50: Entry 6 in Researcher-practitioner’s (RP) journal

RP: The activities on the comparison of styles based on Casorati and Martini’s art works went better. There was much more interaction on the part of the students and I asked them to make a list of all the differences they noticed. There were two Spanish girls who were enthusiastic about the visit and kept asking questions. Same with a couple of Italian girls. They were able to identify the majority of the differences, which I later systematised in plenary and expanded.

Image 8: Enquiry based activity, looking for the eyes in Rosalba Carriera's portraits, in the CLIL museum programme at Ca' Rezzonico (upper secondary)

THE EYES TELL IT ALL (Pastel Room) 



Look at the numerous small portraits in this room. They were made using **pastels**. These painters were very talented, don't you think? Can you believe some of the very best works here were done by a **woman artist**? Her name was **Rosalba Carriera** and she lived around the same time as Giambattista Tiepolo. She was so gifted that she became famous throughout Europe.

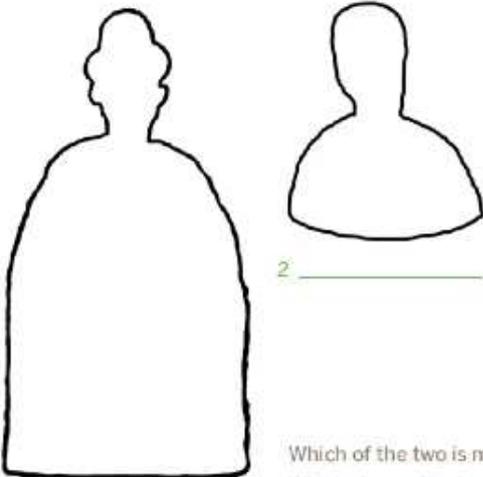
Talk to your partners and answer the following question:
Do you think that in those days it could be easy for a woman to become so famous?
In my opinion/ I think thatbecause.....

A person's **eyes** can tell you a lot about their **character**. And this was something Rosalba was well aware of.

Look at the five pair of eyes above, and identify them in the portraits in this room.
Write down the name of the person portrayed and then a single word which you think describes their character (for example, 'good-hearted', 'sly', 'boring', 'shifty'... **whatever you want**).

8

Image 9: Enquiry based activity, looking for the corresponding shapes of Arturo Martini's sculptures, in the CLIL museum programme at Ca' Pesaro (upper secondary)



1 _____

2 _____

Look for the sculpture whose shape fits with outline number 1. When you have found it, draw within the shape the many deep lines that you can see in the work itself. Then write down title and date of the work. If you then go into Room 8 you can see another work by Arturo Martini whose shape corresponds to outline 2. Here, too, complete it with the (few) lines that you can see in the work then write down its title and date. What happened to Arturo? He changed his style over the period between the two sculptures...

Which of the two is more "realistic"? _____

Which do you like best? _____ Why? _____

10

In the entry above, the Researcher-practitioner also explained how she used the *activity book* as a first step to promote second year (15-16 years old) students' outputs, and how she would then systematise and expand them according to students' interest and cognitive-language level. In

discussing the visit delivered to a group of fifth year students (18-19 years old) of a *liceo scientifico*, the Researcher-practitioner described a similar process:

Extract 51: *Entry 13 in Researcher-practitioner's (RP) journal*

RP: Every time we approached a new work of art, I would ask students first to work on the group activities in the worksheets, then I'd build on the outputs of the group activities to develop further discussion. I was also able to build multidisciplinary connections, which is what they needed in preparation for the final exam of upper secondary school (especially the "tesina")

However, this way of proceeding did not always meet students' approval, especially when the gap between their art and English skills was high. In Entry 4, the Researcher-practitioner described a visit delivered to fifth year students of a *liceo classico* at *Ca' Pesaro*, saying that while their English level was very low, their knowledge of art concepts was quite sophisticated, and she felt they did not fully appreciate the activities in the *activity book*:

Extract 52: *Entry 4 in Researcher-practitioner's (RP) journal*

RP: Their level of English was low in comparison to the class I had the previous week. Both their knowledge of the art terminology in English and their pronunciation were low. I had them read aloud a text and corrected their pronunciation as well. They didn't seem to understand my instructions. We always started from the activities in the worksheets and then I guided their analysis and interpretation of the artworks through both closed and open ended questions. They didn't seem to like some of the activities, maybe too childish for them? The fact of having worksheets to fill in felt a bit patronising.

The other aspect that emerged from the analysis of the data was that both the *activity books* of the CLIL museum art programmes and the worksheets of the CLIL museum science programme were perceived as successful by the museum educators as regards vocabulary learning. For example, Museum Educator 2 claimed that:

Extract 53: Interview with Museum Educator 2 (ME2)

ME2: also, the objective of the worksheets is to repeat certain words to see if they've learnt them

RP: so you present the words more than one time?

ME2: it's the worksheets themselves that do it, especially the one aimed at lower secondary students...at *Ca' Pesaro*, you have the last activity in which they have to compare two sculptures, Rodin and Calder, and they have to say which one is metal and which one is cast and I already talked about these [words] in the first activity and so you present them to the students again at the end of [the workshop] and you see that they remember and it's nice

While the activity books and worksheets did present the same vocabulary multiple times, it was also the way the museum educators exploited this feature to determine whether students were able to reuse and fix the new vocabulary. The importance for the museum educator to act as a facilitator of students' vocabulary use and learning during the visit is also explained by Museum Educator 1 in the extract below:

Extract 54: Interview with Museum Educator 1 (ME1)

ME1: You need to change your approach completely in comparison to a "normal" activity. You need to reduce the concepts you want to convey and continue to repeat the same words to fix the few [concepts] you've chosen to focus on.

Museum Educator 1 interpreted the strategic use of the vocabulary also as a way to scaffold students' understanding of the main concepts, which is exactly the strategy described in Extract 55 by the Researcher-Practitioner.

As regards the structure of the CLIL museum visit, the Researcher-practitioner highlighted the importance of stipulating a learning agreement with the students at the beginning of the visit:

Extract 55: Entry 2 in Researcher-practitioner's (RP) journal

RP: Then, I gave them some information about the visit. I told them this was going to be different from the traditional museum visits. I told them it would be in English, that I would only speak in English to them and that I expected them to speak in English to me and among themselves. I also explained that, although it might seem strange to speak in English with their peers, this would be an excellent opportunity for them to practice their English skills. I also told them they would be working in small groups. I then passed the handouts around (...) I also explained there were two sections dedicated to the language (language for asking for clarification, slow down and so on and language to discuss, describe etc.).

The introduction and learning agreement (see “Welcome stage” in Paragraph 6.2.) were important both in explaining the methodology and structure of the CLIL museum visit, and encouraging students’ engagement and use of English. The first two stages, “Welcome” and “Ice breaker” were fundamental not only in lowering students’ affective filter, but also in creating a positive relationship with the museum educator and thus a positive learning atmosphere. This point was well expressed by Museum Educator 2 in the extract below:

Extract 56: *Interview with Museum Educator 2 (ME2)*

ME2: (...) maybe the most difficult part is to jump in the void as you’re asking them to do something and to test themselves, and it’s not the most amazing thing ever “do this exercise, test yourself”...you can also sell it to them like it’s a game, but they know that it’s not a game [emphasis]

RP: ha ha

ME2: so the ice breaker at the beginning is fundamental

RP: mm why do you say so?

ME2: first of all because you tell them about yourself, because I always choose three things about myself, two are true and one is false, and they think of you as a human being, and not as a teacher, and this is very important afterwards...and it’s also something that springs discussion, something fun, a bit nonsense but they like it, and it always ends with a good laugh

The “Final remarks” stage also showed how it is important to praise students’ hard work, so as to reinforce their self-esteem:

Extract 57: *Interview with Museum Educator 2 (ME2)*

ME2: (...) anyway, I think it’s very important to thank them at the end [of the workshop], because they understand that you had fun as well, that they did something nice, and that they worked well, because it was a test for them and I thank them for the time they’ve dedicated to interacting with me

In exploring the role that ICT should have during a CLIL museum programme, the analysis shows that finding the right digital tool is not always an easy task. As regards the CLIL museum programme on Animal classification, we initially decided to share the audio files necessary to complete the Listening in Worksheet 1 (see Appendix A) through using students’ personal mobile phones. However, this procedure resulted extremely problematic and time consuming. In fact, the Marco Polo Art students reported the issues they encountered with the audio files:

Extract 58: Focus group with Marco Polo Art students (FG 7)

Sofia: mmm for me it was really difficult to listen to the audios because they always got interrupted before the end

Moderator: mmm

Giuseppe: and they were not in order

Alessandro: I mean, with the words you could also use your logic and throw them in the text

Sofia: well not really, because you had to look for them and so you needed the audio to put the word in text

Alessandro: yes, but for example, what was it...*fish*...I can’t remember the example

Sofia: *fishes...yeah, of course with some things you can just [guess]*

The Researcher-practitioner reported a similar negative situation:

Extract 59: *Entry 8 in Researcher-practitioner's (RP) journal*

RP: The biggest problem during the visit was sharing the audio files with the students. It was a nightmare! It took me almost 15 minutes every time to transfer the files via Bluetooth to their mobile phones and sometimes there were problems related to the different types of phone (android or apple). The files then sometimes didn't work properly or were deleted after a while. To speed up the process I had to give the instructions in Italian. This problem affected students' concentration but also the way I initially bond with them.

After reflecting on the issues mentioned in the extract above, we decided to order audio guides that could be simply distributed to the students at the beginning of the visit and collected at the end. In the extract below the Researcher-practitioner claimed that using the audio guides saved so much time that she was able to concentrate on the Ice breaker, which importance we have already presented above:

Extract 60: *Entry 14 in Researcher-practitioner's (RP) journal*

RP: This time, because we finally got the audio guides, I didn't have to share the audio files via Bluetooth. This saved so much time that I was able to conduct the ice breaker. One student even asked me about my experience in Turkey.

However, even if the audio guides were considered a much better tool, they were still not exempt of problems:

Extract 61: *Entry 14 in Researcher-practitioner's (RP) journal*

RP: With the audio guides is a totally different ball game. However, with the first group I didn't explain that well how they work and some didn't understand how

to listen to the audios. The volume was really low and students had to use their earphones.

Another issue as identified by the participants regards the structure of the CLIL museum programme on Animal classification was “time”. In both the open ended responses in the questionnaires and in the focus groups, the Marco Polo Art students acknowledged that they felt they had to rush throughout the first part in the museum galleries:

Open ended response: *S39 and S97 (Marco Polo Art students, Group 1)*

S39: because the only thing that I didn't like was that I wasn't able to ask for the meaning of a word at any given time

S97: I'd have preferred to be able to see everything in greater detail

Extract 62: *Focus group with Marco Polo Art students (FG 1)*

Isabella: (...) it would have been nice to have more time to see everything in more detail

PP: mmm yeah

Elisa: yes, we did everything in a rush

Extract 63: *Focus group with Marco Polo Art students (FG 7)*

Alessandro: then, the only aspect that I thought was negative, and I think it's what everyone thinks, was time, because we could have left an hour earlier-I mean to stay longer

Moderator: more time at the museum?

Alessandro: Yes, because the museum is already big ...we could have stayed longer...another hour

Moderator: what do you think guys? Do you agree with Alessandro?

PP: yeah

The Marco Polo teachers agreed with their students on the importance of providing them with some time to visit the Natural History Museum of Venice at their pace (see also Paragraph 9.3. on students' attitudes towards the CLIL museum visit):

Extract 64: *Fruitful discussion with Marco Polo teachers*

Paola T: because [the second part is long] and if we skipped it, it would mean more time for the students to walk around the museum...because they kept saying "it's too little time, it's too little time"...you should stay there [at the museum] the whole morning

Elena T: yes exactly

Paola T: you don't have enough time, you should stay at the museum the whole morning

Elena T: I mean, if you ask them to engage in that workshop, they don't see the museum because they're focused on finding the information they need to complete the worksheets...

In the extract above, the Marco Polo teachers discussed how it would be better to reduce the time allocated to the second part in the workshop room, and give students more time to collect the information in the museum gallery in the first part of the visit. However, the MSN staff described the second part in the workshop room as giving coherence to the entire experience.

Extract 65: *Fruitful discussion with MSN staff*

MSN Educator 1: I also think that while the part with the definitions is actually quite ok, the final part with the cladogram [puffing]

MSN Director: it's difficult

MSN Educator 1: it's difficult in Italian, it's fast, it's at the end of the two hours

MSN Director: but we can change it, and find other elements especially because we're in a museum

- MSN Educator 1:** it makes sense to end the visit that way [with a cladogram]
- MSN Educator 2:** well of course otherwise why would you look for the specimens in the first place?
- MSN Educator 1:** [unclear because of cross talk] it's something that you try and then I tell you this is a way to classify but-
- MSN Director:** it should be something planned around the structure "I show you and then you try it yourself" (...) but we also need to exploit the value of doing it in the museum

In the extract above, the MSN staff while also acknowledging the time issues of the visit, also claimed that getting to the last part of the visit - that is the completion of the cladogram - is necessary to reach the aims of the CLIL museum visit as a whole. Within this perspective, the Researcher-practitioner also described the need to get to the recap stage on time:

Extract 66: Entry 9 in Researcher-practitioner's (RP) journal

- RP:** This morning I didn't use any particular strategy for giving the instructions. Usually, I either ask them to translate them back into Italian or I ask ICQs. This morning I was a bit in a rush because I didn't want to waste time. Last time I wasn't able to get to the recap stage in the workshop room [second stage of the visit] because I was running late.

In trying to solve the time issue, the Researcher-practitioner suggested to give students some more time to tour the museum at their own pace either before or after the CLIL museum visit. During the fruitful discussion, the Marco Polo teachers reacted positively to this proposal:

Extract 67: *Fruitful discussion with Marco Polo teachers*

- Elena T:** (overlapping) depends on whether twenty minutes are enough because it's one thing if they already know it well, another if they don't...twenty minutes are not even enough to see all the rooms with the fossils

Paola T: I would do it AFTER the CLIL museum workshop

Elena T: this way, they can go back and concentrate on the things that they liked [caught their attention]

Paola T: I agree, after [the CLIL museum workshop] is better

Stefano TA: in fact, students kept saying “now, I’d like to go back”

9.1.4. The CLIL museum educator profile

The last category that emerged when exploring the aspects involved in integrating CLIL and museum based pedagogy is the *CLIL museum educator profile*. With this category we refer to the museum staff and Researcher-practitioner’s reflections on the skills needed by the museum educator when delivering a CLIL museum workshop.

In her written interview, the Education Director claimed that a CLIL museum educator should have both excellent language and content related skills and being able to actively engage students with the museum contents:

Extract 68: *Written interview with Education Director*

Education Director: He/she should know the museum contents so as to be able to also answer to the unforeseen questions; he/she should adopt the cooperative/active methodology in a critical way, and have an excellent competence in the FL.

In the extract above, the Education Director highlighted the importance for any museum educator to know the museum contents very well so as to be able to answer students’ “unforeseen” questions. From this perspective, the Researcher-practitioner and Museum Educator reported very different experiences:

Extract 69: *Interview with Museum Educator 2 (ME2)*

ME2: [the content] comes about more natural to me because especially when I'm at *Ca' Pesaro*, I feel a little bit like at home (...) I used to go there even when I was younger and that's why I feel like I'm able to convey its contents even in an informal way, and that's why I'm very fond of it and I feel very close to it from an affective point of view, so for me to convey a museum such as *Ca' Pesaro* is more or less easy...well maybe not easy, but I've been conveying the contents of the museum for years now, so I know it well, and I feel very comfortable, so it's not something new

Extract 70: *Entry 6 in Researcher-practitioner's (RP) journal*

RP: Truth is that sometimes I feel at loss with the art contents. It's tiring for me, and I feel like I'm always a bit superficial (...)

While Museum Educator 2 felt literally “at home” with the art and museum contents related to *Ca' Pesaro*, the same cannot be said about the Researcher-Practitioner. Indeed, she expressed the same preoccupation about her knowledge of the science contents related to the *Natural History Museum of Venice*:

Extract 71: *Entry 10 in Researcher-practitioner's (RP) journal*

RP: I feel a bit ashamed that I'm not able to interact that much on the scientific contents. It would be amazing to engage [the students] in a bit of a discussion about the specimens.

As regards the CLIL museum educator's language and content level, Museum Educator 1 pointed out that a medium level in both would be sufficient to deliver a good CLIL museum visit:

Extract 72: *Interview with Museum Educator 1 (ME1)*

ME2: I believe that, when considering the language level of the target [school students], it's sufficient that the CLIL museum educator has a medium language level.

Same for the science concepts, which are basic. Also because, to convey more complex concepts through a foreign language would be very difficult. I think that if he/she used a good pronunciation and phraseology, this would make the [CLIL] experience better, although reducing students' overall comprehension.

He acknowledged that while a higher language level in English would allow for the use of a better pronunciation and phraseology, this might not always have a positive impact on students' comprehension. However, according to Museum Educator 2, when acting as a CLIL museum educator, she is also acting as a language "model":

Extract 73: *Interview with Museum Educator 2 (ME2)*

RP: so you feel like you have to be also a language model?

ME2: yes, absolutely...I'd never deliver a CLIL museum workshop in French with my language level...I've got a B2 level in French but I don't think it's sufficient

RP: but you would deliver the visit in French if tourists were the target

ME2: yes, but because they understand me...I speak French well, but my French is no way perfect...it's not like I never make mistakes, I have doubts on the pronunciation (...) especially to know the little exceptions, who knows what I say...I mean "help"

The same perception of herself as a language "model" was also expressed by the Researcher-practitioner:

Extract 74: *Entry 13 in Researcher-practitioner's (RP) journal*

RP: One student approached me at the end of the visit wanting to ask me what I thought about the idea of applying to a university course delivered entirely in English. She seemed very eager in getting my advice. It felt nice that she wanted to discuss such an important decision with me. Sometimes I get the feeling students are curious about my English and how I learned it, and they wonder if

they'd be able to reach the same competence and engage in the same life experiences as I did.

However, according to the MSN staff, to have a high language level is not sufficient to be a CLIL museum educator:

Extract 75: *Fruitful discussion with MSN staff*

MSN Director: in my opinion this is the important message...knowing the methodology is a professional competence in itself

MSN Educator 1: now it's more clear to us that it's not only the English competence [that matters]

RP: yeah exactly, it's the methodological competence...to be able to use the facilitation strategies

MSN Educator 1: yes

MSN Director: absolutely

In discussing the difference between a traditional museum visit delivered to tourists and a CLIL museum visit, Museum Educator 2 described the strategies she normally uses to monitor both her language production and students' understanding:

Extract 76: *Interview with Museum Educator 2 (ME2)*

ME2: well, there's always a lot of interaction even during the other workshops but in a CLIL museum workshop, students' participation needs to be higher than mine, meaning that I guide them (pause) towards that objective, but from my perspective is really important that I don't speak too much, and listen to them, see what they're missing, try to understand what could be difficult for them...but it's more about monitoring them, remaining available, without bombarding them with lots of information as I'd maybe do with other types of visits [laughing]...I focus more on the listening [part] and I focus on the basics

making sure that they can understand them and that they can retain a certain type of vocabulary, a certain way to structure the phrase...I mean when I deliver a [normal] visit I'm not so focused on how I structure a phrase or the vocabulary I use...I mean if I'm delivering a visit to middle school students [in Italian] they already know what a sculpture is and what a painting is, but with [CLIL] I pay more attention so it's a totally different way to deliver the visit

In the extract above, Museum Educator 2 explained how she changes her approach completely when delivering a CLIL museum visit, focusing much more on students' linguistic needs so as to both help them with the language they are missing and promote their language production. In fact, it is this new role as a linguistic facilitator that made her nervous at the beginning:

Extract 77: *Interview with Museum Educator 2 (ME2)*

ME2: at the beginning, because it was something new, and I was a bit agitated...then the more I did it I stopped [feeling that way]

RP: what made you feel anxious?

ME2: (pause) maybe the fact that I had to teach English, not to deliver a guided visit in English, which is totally different...one thing is to make yourself understood, and another is to teach a language...I was afraid to make a mistake and teach them something wrong but-

RP: when you say "to teach", what do you mean?

ME2: for example, to teach them a new word or a verb

Indeed, in the extract below the Researcher-practitioner described how she makes sure that students are able to reuse and fix the new vocabulary multiple times during the museum visit:

Extract 78: *Entry 6 in Researcher-practitioner's (RP) journal*

RP: In both groups, students didn't know the meaning of "polished" and "aim", and I made sure that they had the chance to re-use them multiple times during the visit

Museum Educator 2 also describes how her role as an English home tutor helped her in developing her linguistic awareness and confidence she would need in her new role as CLIL museum educator:

Extract 79: *Interview with Museum Educator 2 (ME2)*

ME2: I mean the English grammar is easy but I always find grammar difficult [in general] but I think it's a problem of confidence...I saw that after a while it wasn't a problem anymore

RP: ok

ME2: ...I relaxed a lot because I had never done something similar...I studied English mm I went to England many times, but to go from studying art history to go back and study English...because I had to revise it anyway...but it also helped that I work as an English home tutor for kids

In the extract below, Museum Educator 2 also outlines how adapting contents to the specific audience is something that she normally does in any museum visit, but in CLIL she also has to adapt her language according to the group's language level:

Extract 80: *Interview with Museum Educator 2 (ME2)*

RP: so do you pay more attention to the way you speak?

ME2: eh of course

RP: what do you exactly do differently?

ME2: I'm less instinctive, I follow more of a structure and (pause) and I tend to observe more how they react...and I try to understand if they're following me, because...one thing is to adapt the contents on the basis of the group you have in front of you and that...maybe it's because I've been working [as a museum educator] for a long time, but I mean...after a while you [understand]

immediately from their eyes what kind of group is standing in front of you as soon as they enter in the museum...because it's about their personality, how they move in space, you can even understand their level of English from how they move in space and in that case I need to pay more attention to the way they behave, and try to understand if they understand me because language comprehension is [usually given for granted] (...) but with [CLIL] is totally different because I need to pay attention to what they say and how they say it, if they can follow [understand] me, I also pay attention to how they react to what I say because I need to adapt to their English level...recently at Ca' Pesaro I had people that had already passed the C1 level or people that had never spoken in English before in their life

In the extract above, Museum Educator 2 also highlights how experienced museum educators have the ability of immediately understanding the group they have in front of them and of behaving accordingly.

Flexibility in approaching students by adapting their way of speaking and scaffolding students' understanding was also acknowledged by Museum Educator 1, who drew a parallelism between CLIL and good museum based pedagogy:

Extract 81: *Interview with Museum Educator 1 (ME1)*

ME2: It's necessary to ask lots of questions or ask them to complete sentences to make sure that they understand. However, this is something that is normally done also during the non-CLIL museum workshops.

The same positive parallelism was also outlined by MSN Educator 1 in discussing the steps taken when developing the CLIL museum programme on Animal classification:

Extract 82: *Fruitful discussion with MSN staff*

MSN Educator 1: (...) we also said that it helped that our programmes were already designed in a way which was close to the CLIL methodology (...) in terms of how to engage with the students, that is working in groups, [having] practical activities...so it was easy from this point of view, difficult from others

Within this scenario, to be an excellent communicator was also listed by Museum Educator 2 as a fundamental requirement:

Extract 83: *Interview with Museum Educator 2 (ME2)*

ME2: then obviously, he also needs to be a good communicator, but usually a good listener is also a good communicator

RP: what do you mean by good communicator?

ME2: to be able to express a concept in a clear and efficient way, in the shortest time possible so as to make sure they remain attentive

However, Museum Educator 2 also indicated other soft skills as pivotal for any museum educator delivering a CLIL museum workshop:

Extract 84: *Interview with Museum Educator 2 (ME2)*

ME2: (...) I observed that they [students] were quicker towards the end than at the beginning because they need to get familiar with the space as well and with the person they have in front of them [the museum educator]...in my opinion, a CLIL museum educator should be very emphatic, always smiling, that doesn't make them feel stupid [laughing]

RP: [laughing]

ME2: yes, maybe, especially at the beginning, I scold them of course, but then I smile and tell them "now we can start", I make jokes

In fact, in building a profile of the perfect CLIL museum educator, Museum Educator 2 claimed that empathy and being able to build a trusting relationship with students is also incredibly important in terms of students' engagement:

Extract 85: *Interview with Museum Educator 2 (ME2)*

RP: so if we had to build the profile of the perfect CLIL museum educator, what would that be?

ME2: perfect knowledge of English, perfect knowledge of the museum and related to it, mmm to be really nice, great empathy, to be an excellent listener (pause) great patience, lots of it [laughing]

However, Museum Educator 1 outlined how he finds that his interaction with students is less spontaneous when speaking in English:

Extract 86: *Interview with Museum Educator 1 (ME1)*

ME2: Group management is the same, but the interaction is more difficult. It's difficult to make jokes, use filler sentences and metaphors that are usually employed to keeping students' attention high and to scaffold explanations

The same feeling is also recorded by the Researcher-practitioner:

Extract 87: *Entry 6 in Researcher-practitioner's (RP) journal*

RP: *Also, the fact that I always have to speak in English to them makes me feel like I have a less natural interaction with the students.*

When considering the array and multidisciplinary of the knowledges and skills required by a CLIL museum educator, the MSN Director wondered whether the career prospects make it worth it for a museum educator to invest in CLIL methodological training:

Extract 88: *Fruitful discussion with MSN staff*

MSN Director: this is the most difficult thing to explain when you propose a CLIL museum programme to an institution that has never worked with it before...there are certain objectives, but what do I need to deliver them? hhhh you need quite a lot of professional training, in the sense that...you need the people that are available, because [pause] what I see as a

possible critical point is that it requires people that have a very complex professional expertise, which you can't develop in a quick way, also because a good scientific background needs to be developed through a degree and not a series of short courses, [then you need] the English language competence, which also requires time, and then you also need a methodological [CLIL] competence...all these competences that a museum educator need to develop need to be worth it from the economical point of view [in terms of professional opportunities], otherwise why should someone make such a life investment-

MSN Educator 1: (overlapping) and study so hard

MSN Educator 2: yes true

MSN Director: just to deliver one workshop there and one here?...this is something that-

MSN Educator 1: (overlapping) it's something that we're-

MSN Director: not that WE are...it's something it needs to be taken into consideration when- for example if I had to give a presentation on CLIL during an ANMS meeting, this is what I'd say that while, in another situation, I look at the space, I have a certain background, I create two/three different learning activities, it's worth it...with CLIL instead I need to invest more time [on average]

The MSN Director acknowledged that museums need to consider that both designing a CLIL museum programme and training the person to deliver it takes much more time than it would for any other type of museum learning programme. Indeed, the MSN Director pointed out that a museum educator in Italy is usually a freelancer that works for different institutions, and only invest in a specific training if he/she foresees a prospective economical/career reward.

9.2. Data analysis in relation to Research Question 2

Our Research Question 2 was “*What aspects need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum?*”. To answer this question, we

took two actions: i) we explored how teachers in Group 2 integrated the CLIL museum visit into the school curriculum and if and how it responded to their expectations, and ii) we reflected on the positive and negative aspects of the school-museum integrated CLIL module designed and implemented by the Marco Polo teachers and the Researcher-practitioner at the *Liceo Artistico Marco Polo* (see Chapter 7).

As for the first action, we analysed teachers' (Group 2) responses to Questions 1, 2, 4, 5, 9a and 9b in the questionnaire, which we will present in Paragraph 9.2.1.. As regards the second action, we conducted an integrated analysis of the Marco Polo teachers and the Researcher-practitioner's fruitful discussion, and the Marco Polo students' focus group discussions (Paragraph 9.2.2.). Through combining different types of data, our aim was that of getting a deeper and richer understanding of the aspects to take into consideration when integrating the CLIL museum visit into the upper school curriculum in Italy.

9.2.1. Teachers' (Group 2) perspective

In this paragraph, we will present the analysis of teachers' (Group 2) responses to Questions 1, 2, 4, 5 in Part 1 and Questions 9a and 9b in Part 2 of the questionnaire (see Appendix D).

Figure 20: *Questions 1, 2, 4, 5 in Part 1 and Questions 9a and 9b in Part 2 of teachers' (Group 2) questionnaires*

PART 1

1. Why did you decide to book the activity with your class?

2. The museum visit relates to the school curriculum in terms of:

- a. contents (art/history or science)
- b. English language
- c. Integrated learning of contents and English language

4. Will you follow the museum visit with post-visit activities at school?	YES	NO
---	-----	----

5. Is this museum visit part of a CLIL module at school?	YES	NO
--	-----	----

PART 2

9a. The museum visit was in line with your expectations:

- Not at all
- Very little
- Enough
- Very much

9b. Why? _____

In analysing teachers' responses to Question 1 (*Why did you decide to book the activity with your class*), 7 teachers responded (one missing value) with two teachers pointing at English practice in an authentic context as the main reason for choosing the CLIL museum activity (T2 and T7), one underlining the alignment of the CLIL museum visit to the school curriculum (T4), two pointing at the interdisciplinarity of the visit and its focus on competences development (T3 and T5), and two indicating interest (T1 and T8; see Table 22):

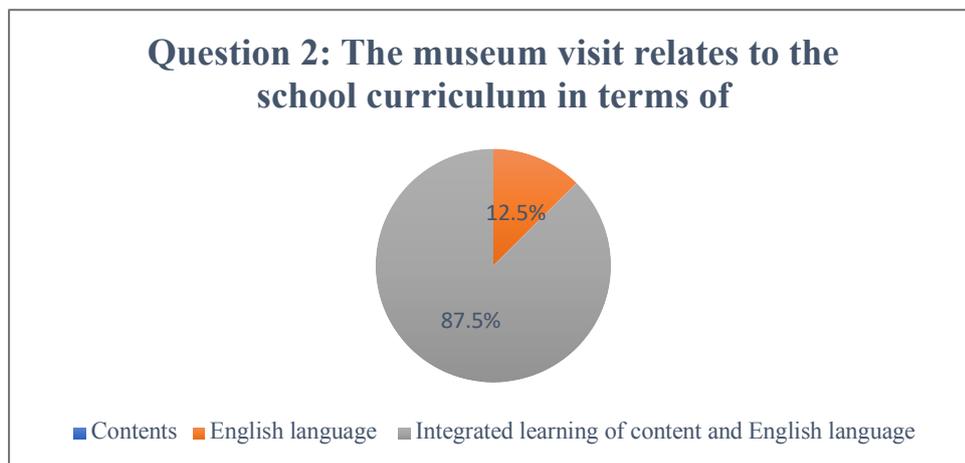
Table 22: Teachers' open responses to Question 1 (*Why did you decide to book the activity with your class*)

Teacher	Response Question 1
T1	I thought it would be interesting and engaging
T2	because it was in English
T3	because it taught contents across different subjects, encouraged critical thinking in response to a text such as the work of art
T4	It aligned to the school curriculum in the 5th year
T5	for the connection between the English language and the scientific content
T7	to provide students with a language experience in a real communicative context
T8	accompanied my colleague because I was curious about the activity

In analysing teachers' responses to Question 2 (*The museum visit relates to the school curriculum in terms of*), all 8 teachers responded with 87.5% (n=7) of them selecting *Integrated learning of*

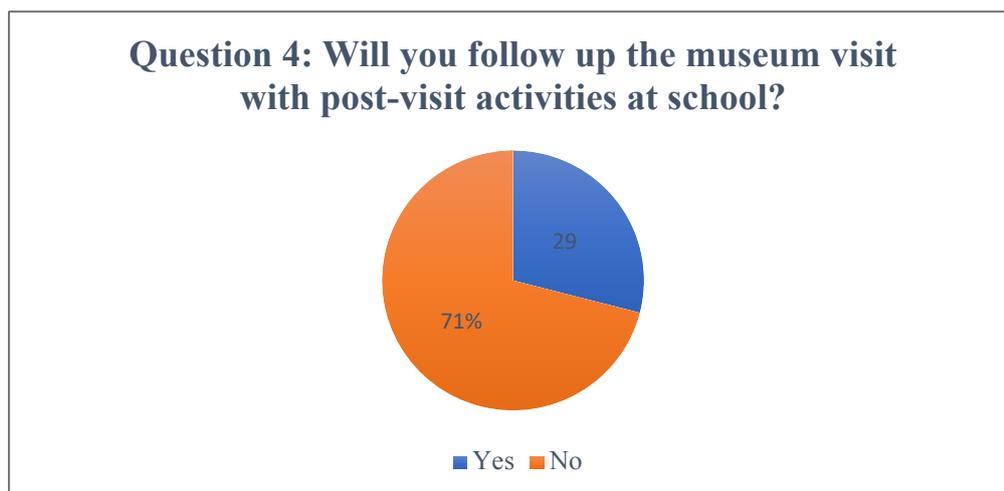
content and English language (Option C), and 12.5% (n=1) selecting *English language* (Option b).

Figure 21: Teachers' (Group 2) responses to Question 2 (*The museum visit relates to the school curriculum in terms of*; n=7), Option a (*Contents*; n=0), Option b (*English language*; n=1), and Option c (*Integrated learning of content and English language*; n=7)



In analysing teachers' responses to Question 4 (*Will you follow up the museum visit with post-visit activities at school?*), 7 teachers responded (one missing value) with 71% (n=5) of them selecting *no* and 29% (n=2) selecting *yes*.

Figure 22: Teachers' (Group 2) responses to Question 4 (*Will you follow up the museum visit with post-visit activities at school?*; n=7), *Yes* (n=2), and *No* (n=5)



In analysing teachers' responses to Question 5 (*Is this visit part of a CLIL module at school?*), 7 (100%) teachers responded (one missing value) *no*.

Figure 23: Teachers' (Group 2) responses to Question 5 (Is this visit part of a CLIL module at school?; n=7), Yes (n=0), and No (n=7)



In analysing teachers' responses to Question 9a (*The museum visit was in line with your expectations*), 8 teachers responded with 62.5% (n=5) of them selecting *Very much*, and 37.5% (n=3) selecting *Enough*.

Figure 24: Teachers' (Group 2) responses to Question 9a (*The museum visit was in line with your expectations*; n=8), *Very much* (n=5), and *Enough* (n=3)



In analysing teachers' responses to Question 9b (*Why?*), all 8 teachers responded with the majority of them claiming that the CLIL museum visit had been in line with their expectations because it had had a positive impact on students' affective reactions and learning, and because of its

engaging methodology. However, two of the teachers expressed the wish to have more cross-disciplinary references:

Figure 25: *Teachers' open responses to Question 9b (Why?)*

Teacher	Response
T1	because it was conducted with professionalism without boring students
T2	the museum trail was what I expected and also my students' reactions
T3	the connections with history were very interesting, especially those with Nazism. However, I would have also liked to stop and talk about the section "the phantoms of terror"
T4	I would have liked some references to the Italian literature
T5	they improved their competences
T6	interesting, enjoyable, engaging
T7	I was expecting a workshop with a focus on skills and lexicon and this is what we had
T8	interesting both with regard to the language and the scientific contents

9.2.2. The Marco Polo teachers/students, and Researcher-practitioner's perspective

In this paragraph, we will present the categories and themes as emerging from the integrated analysis of the Marco Polo teachers' fruitful discussion with the Researcher-practitioner, and the Marco Polo Art students' focus group discussions in response to Research Question 2. We identified six different categories: Teachers' CLIL training and professional development, Team-teaching across subjects and contexts, Logistics and Organisation of the module, The value of the integrated module, Pre- and post-visit activities, and Poster and Assessment.

9.2.2.1. Teachers' CLIL training and professional development

The first category that emerged in analysing the difficulties encountered in relation to the school-museum integrated CLIL module is “Teachers' CLIL training and professional development”. For example, Paola T indicated that her lack of training in the CLIL methodology made it for her difficult to both design and implement the module:

Extract 89: *Fruitful discussion with Marco Polo teachers*

Paola T: for example, for me it was difficult, given that I'm not competent in the [CLIL methodology]

Elena T: yes, initially Paola, even though she's an excellent teacher, was afraid of this module...then she caught up little by little

Paola T: yes, but I struggled much more than you [addressing Elena and RP] did

Elena T: because it was different

Paola T: exactly, in fact, we both [pointing at Stefano TA] struggled

Despite being assisted by Stefano TA, the teaching assistant, Paola T felt she struggled in fully understanding and delivering the module, and she highlighted her need to be supported:

Extract 90: *Fruitful discussion with Marco Polo teachers*

Paola T: because I don't have the competence to-

Elena T: (overlapping) look, I acquired that competence by taking the course on the CLIL methodology last year

Paola T: yes, but I didn't, so for me it was really difficult to structure [the module]...so the more support I have the better

In fact, when discussing the skills needed to plan and deliver an integrated CLIL module, expertise in the CLIL methodology emerged as the most important. For example, Elena T pointed out that finding the right materials and adapting them for CLIL is a challenging task, that requires methodological training:

Extract 91: Fruitful discussion with Marco Polo teachers

Elena T: well, first of all, the CLIL methodology, because if you haven't done the methodological course, you don't know what it is...I mean I attended a *liceo linguistico* that had an international curriculum, but still you worked in the same traditional way as in Italian and you used the translation to understand the word...but this is a totally different methodology...to be able to design the activities, you need to search a lot [for the right materials]...I mean you can be lucky and find exactly what you need, otherwise you have to modify it...even to find the website that employ the right level of English is not that easy

RP: so [what you need] is a teacher who already has the methodological competences

Elena T: yes

However, on the positive side, both Paola T and Elena T felt they had changed as a result of applying CLIL both at school and at the museum:

Extract 92: *Fruitful discussion with Marco Polo teachers*

RP: what about the impact on your teaching? You said that [CLIL] made you reflect a little on your idea of having them work in groups

Elena: yes to structure the activity in a different way

Paola T: it encourages you to change

Elena T: Yes

Paola T: yes, not feeding them with ready made explanations, but encourage them to [work on the information themselves] so that they're more attentive otherwise they get distracted or get bored...maybe they're even right but it's sort of inevitable and you need to use other tools

In fact, the Marco Polo teachers acknowledged how implementing CLIL had encouraged them to vary their teaching strategies and to try out new ways to engage their students even during the traditional lessons in Italian:

Extract 93: Fruitful discussion with Marco Polo teachers

Elena T: I found useful the activities for an inclusive pedagogy...they're not CLIL but the other day I tried one on genetics using the simple on the chin (...) but I mean you always have to make a choice "do I suggest this activity or I move on with the rest?! I mean the theory part for example...do I treat it like I'd normally do in CLIL, I mean I give you the questions, read and then use the information to complete the activities...maybe we could help them this way also when using Italian...this is the only thing...

Extract 94: *Fruitful discussion with Marco Polo teachers*

Elena T: this made me think that maybe I should change the way I teach, without going crazy but maybe focusing their attention on the text and telling them "now read the text on your own and look for these things"...this way you help them make connections and understand the structure of the text

However, Paola T highlighted that, despite the undeniable benefits of cooperative learning on students' learning and active engagement, she still felt she needed support in adopting it on a more day-to-day basis:

Extract 95: *Fruitful discussion with Marco Polo teachers*

Paola T: I was never able to adopt it in my classes, when you think about the programme that you have to teach...either you have a colleague that shows you how to do it, but if you have to start by yourself you just waste so much time to finish that topic...then of course students are more collaborative, and maybe they can remember better what you taught them...that's for sure...because maybe we rush to finish the programme and then they can't remember anything

9.2.2.2. Team-teaching across subjects and contexts

What emerged as lacking in the design of the module was the collaboration with the English teachers. While this was a special project, in which two teaching assistants (RP and Stefano TA) were involved, Elena T and Paola T's surprise as regards students' language competence shows that the module would have certainly benefitted from the perspective of the English teachers:

Extract 96: *Fruitful discussion with Marco Polo teachers*

Elena T: well, I didn't know that some of them have such a good English level

Paola T: yeah, it was the same with us...we were surprised

Elena T: Gosh

Paola T: but the English teacher told me that this year-

Elena T: (overlapping) they're good

Paola T: even their pronunciation...some of them...I was surprised...and I even asked this girl's mother how it was possible, and she said that she attended a bilingual primary school...you need to start from elementary school

The importance of the collaboration between teachers of different disciplines when designing a CLIL module was also indicated by the Marco Polo students:

Extract 97: *Focus group with Marco Polo students (FG 2)*

Moderator: what if it [was organised by] the English teacher?

Julie: yes, but maybe together with the art teacher-so she's more prepared in terms of the paintings

However, in the context of museum-school integrated CLIL module, what also emerged as fundamental was the support and close collaboration with the museum staff. For example, in exploring the possibility of creating a module around the CLIL museum programme on the Lagoon, the Marco Polo teachers claimed that it would be difficult for them to design the module by themselves, especially if they are not familiar with the topic:

Extract 98: *Fruitful discussion with Marco Polo teachers*

Elena T: it's hard to design an entire module alone, unless the museum helped us because (...) I mean I haven't studied here in Venice, so I'm not that familiar with the territory and I don't know much about it...I mean I'd have to study it myself before

Paola T: yes, that's true

RP: so what kind of information would you like to receive from the museum?

Elena T: first of all if there any websites, like the ones you [addressing RP] helped us in finding, (...) where you can find activities that can be adapted to different language levels and ages, because for example if I wanted to involve the first year students of *liceo classico*, now you know them a little, their English level is much higher and this module [the one on Animal Classification] would be too easy for them...this is the kind of support that I'd need

Extract 99: *Fruitful discussion with Marco Polo teachers*

Stefano TA: I was thinking about the module on the Lagoon and where to find sources to plan it and to be honest I think it would be a bit difficult

Elena T: yes, exactly

Thus, according to the Marco Polo teachers, what would help them tremendously in integrating the CLIL museum programme was if the museum provided them with some materials and online resources that could help them start develop the module. This idea was again proposed by Elena T in the following extract:

Extract 100: *Fruitful discussion with Marco Polo teachers*

Elena T: the museum could also provide teachers with some paper materials that give information in English on the Lagoon, the environment, for example...that would be of great [help]

9.2.2.3. Logistics and Organisation of the module

This category emerged as one of the biggest issues of the module. The Marco Polo teachers complained about both the logistics of the museum visit – scheduling the visit in accordance with the school calendar, finding a second chaperone for the students, finding a teacher colleague to replace them at school – and the integration of the module in the curriculum. The Marco Polo teachers had to meet several times to go over the schedule of the museum visits for all the 11 classes:

Extract 101: *Fruitful discussion with Marco Polo teachers*

Stefano TA: in terms of logistics, to organise the museum trips for all those classes was quite [hard]

Paola T: yes, [Stefano] and I...I had almost forgotten, but we spent an entire afternoon together trying to get organised [and find the dates in the calendar] and then we had to change it again completely, because...I can't remember why [addressing Stefano]

Stefano TA: we had forgotten about the holidays

Paola T: we had forgotten about the holidays...while, I think you Elena remembered and also the payment thing...[rolling her eyes]

Elena T: yes the payment process was [insane], also because you [addressing Paola] had to do it for nine classes

However, what teachers also found stressful was to be on time for their lessons at school after the museum visit, and, in some cases, to extend their working hours:

Extract: *Fruitful discussion with Marco Polo teachers*

Paola T: in fact, I stayed there a few times and sometimes I could go back to school and be on time for my next lesson, while with other classes I had to extend my hours

Elena T: it was the same for me, but there isn't another way to do this...you tell the teaching body that this is a school activity and [students might not be back in the classroom on time for their following lesson] (...)

Paola T: yes, but this means that you work more hours than you're supposed to, which is what happened to me [frowning]

Elena T: Ah-h-h

Paola T: I sometimes went back home even two hours late

Elena T: yes yes, that happened to me as well. For example, on Wednesday I had two hours break [between the end of one lesson and the beginning of the other] and sometimes I had to work...I mean, I couldn't take that break

The problems outlined above emerged as the reasons why the Marco Polo teachers were not very enthusiastic at the idea of organising another school-museum integrated CLIL module in the following school year:

Extract 102: *Fruitful discussion with Marco Polo teachers*

RP: in your opinion, what is the added value of taking them to the museum? If you had to propose a module next year, would you integrate it with a CLIL museum workshop?

Paola T: if I think back to how much time I put into organising it, I'd say no [laughing and Stefano joins in]...if it wasn't that difficult to organise it...

Also, when reflecting on the timeline of the module, the Marco Polo teachers agreed that, on the one side, the implementation of the module in the second semester had resulted disruptive of the successful delivery of the school curriculum, and, on the other, there had been too much of a gap in between the lessons of the module:

Extract: *Fruitful discussion with Marco Polo teachers*

Elena T: I think we need to start earlier...first of all Paola and I agree that the module cannot take place in the second semester and, also, we need to schedule the lessons closer to each other (...) because otherwise you lose them [the students] they forget and I struggled too...I couldn't remember where I had been the day before, especially when you repeat the same things over and over...so maybe it makes more sense to implement [the module] at the beginning of the year-

Extract 103: *Fruitful discussion with Marco Polo teachers*

Elena T: so that you implement the module between September and October and you're done with it...also because, both Paola and I agree that to go back to teach what's left of the Italian curriculum after the CLIL module is finished is a suicide...it's the end of the year and to [keep students focused is a nightmare]

Students confirmed teachers' perceptions, by saying that the module felt a bit disorganised, because of the way the lessons of the module had been scheduled:

Extract 104: *Focus group with Marco Polo students (FG 3)*

Eleonora: the negative aspect was that there was too much of a time gap between the lessons and the museum visit and the poster...maybe we even missed some of the [concepts]

Enrico: I don't think there were any negative aspects apart from that of time that maybe wasn't well managed...if lessons had been more closed together, it would have been better, because it would have been more organised...it was a bit-t-t disorganised, in my opinion...too much of a time gap (...)

In the extract above, the idea that emerged is that the time gap between the lessons were also perceived by students as hindering the fulfilment of the learning objectives of the module. Moreover, they also felt confused about having to interrupt the module taught in English with lessons in Italian on a different topic:

Extract 105: *Focus group with Marco Polo students (FG 5)*

Moderator: but do you think the lessons were too distant from one another?

Francesca: maybe, the oral presentation...I mean-maybe because the teacher was absent a few times, so...but, between the museum and after-I mean up to the museum [part] they were [ok]...but after the museum we did-we had a bit of a break, so maybe you tended to forget a little bit...

Luna: yes, we interrupted science in English and went back to Italian...

Claudio: we went on a school trip as well

Francesca: yes, we moved to talk about chemistry and then back to the animals

Moderator: so there was a bit of confusion-

Francesca: yes, it would have been better if it had been all in one block

Moderator: without disruption

Claudio: also because we did the chemistry test after three weeks of finishing the lessons on chemistry [unclear because of cross talk]

Finally, what also emerges from the data analysis is that nine hours were not enough to complete the module, and the Marco Polo teachers had to add extra hours to give all students the opportunity to present their posters:

Extract 106: *Focus group with Marco Polo students (FG 5)*

Gemma: yeah, exactly the lessons went by so quickly...Stefano TA [the teaching assistant] had to come for other two lessons because we hadn't finished the oral presentations

Moderator: do you mean to finish the [oral presentations] of the poster?

PP: yes

In fact, Stefano TA suggested a different organisation of the lessons in the module so as to give students more time to prepare the poster presentation:

Extract 107: *Fruitful discussion with Marco Polo teachers*

Stefano TA: yes, so what I was saying was that to postpone the museum visit to the sixth lesson or ask them to do the poster earlier, given that we had the group work, could have given them [the students] one more day to work [on the poster]

Paola T: yes, it was all done in a rush

Stefano TA: we had to add some extra hours to finish the [module]

Elena T: the same happened to us

9.2.2.4. The value of the integrated module

When asked about their perceptions as regards the integrated module, the Marco Polo students described the visit to the museum as an important complement to classroom learning:

Extract 108: *Focus group with Marco Polo students (FG 7)*

- Moderator** and if next year they told you "we'll only do the module without the museum visit?"...would you like it anyway or...?
- Paolo** for certain aspects, maybe yes, but-
- Rebecca** (overlapping) in my opinion, it would feel incomplete...to go to the museum was the perfect end to an educational experience, which had started [in class] we talked about these things, and then we went to see them and the educational path [the module] is complete
- Paolo** exactly...I mean it's nice to see-
- Anna** (overlapping) it's nice to do an activity that is different-

In fact, students were unanimous about their preference towards a school-museum integrated CLIL module rather than a school only module:

Extract 109: *Focus group with Marco Polo students (FG 6)*

- Moderator** and if next year-because next year you'll probably have another CLIL module, I don't know if science or art history...if they gave you the option, would you rather have both the school and the museum part, or would you prefer to do it only at school?...what would you choose?
- Sara2 and
Valentina:** a part at school and a part at the museum
- Moderator:** yeah?!

Laura: yeah, absolutely

Roberto: for sure

Valentina so if I don't understand at school, I understand at the museum, which is quite possible [group laughter]

The value of the integration of school and museum lessons was also described by Elena T, when reporting students' perceptions of the differences between the module on *Animal classification* (school-museum), and the module on *minerals* (school) implemented the previous year:

Extract 110: *Fruitful discussion with Marco Polo teachers*

Elena T: but in the end...I asked the students "but did you have fun" and especially those that had already done [the CLIL module] last year, they said "yes", especially because they were able to compare it [with the module the year before]

However, when reflecting on the possibility of having the entire module delivered at the museum, students came to the conclusion that having lessons both at school and at the museum was still the best option:

Extract 111: *Focus group with Marco Polo students (FG 6)*

Moderator: you would like to have the [entire module] at the museum?

Samuel: yes, because...

Sara1: yes, but you would have to go to the museum two or three times

Samuel: but also if you put two lessons at school and three at the museum-

Roberto: (overlapping) yes the majority at school-I mean at the museum...and a little bit at school

Samuel: this way it could be a bit more...interactive

Extract 112: *Focus group with Marco Polo students (FG 3)*

Moderator: so, if they offered you to do another module...always CLIL...science or art in English...[would you like it to be] only at school or both at school and at the museum?

PP: both at school and at the museum!

Luca: Also something else

Eleonora: It's something different

Jessica: You understand what you're studying

Finally, students also highlighted how they would have liked to be involved in the planning of such a module, especially in regards to choosing its topic:

Extract 113: *Focus group with Marco Polo students (FG 1)*

Moderator: so, "let's create it together", meaning "let's choose the contents"

PP: mm mm

Moderator: would you like to be involved?

PP: oh well of course

Kristina: YEAH!

Isabella: yes, of course

Moderator: maybe the teacher gives you a topic-

Giuseppina yes, this way we could also say what we wouldn't enjoy...we could give also meaningful suggestions for once [group laughter]

Extract 114: *Focus group with Marco Polo students (FG 1)*

Isabella: but maybe on a topic that we choose ourselves...maybe something that is not only related to science, but also to other subjects...that we can choose ourselves...not the same subject for everyone

Bianca: like the project of the third year of middle school [group laughter]

Isabella: maybe not like that [laughing]

Moderator: so if next year they gave you the option of doing another CLIL module...would you like it about science or about another subject?

Isabella: can't we decide it ourselves for once?

9.2.2.5. Pre- and post-visit activities

As regards this category, students reported that some of the pre- and post-visit activities were either too complex or too boring. They also indicated that sometimes they lacked of a gradual progression from an easier to a more difficult task:

Extract 115: *Focus group with Marco Polo students (FG 5)*

Emanuele: some lessons were boring

Moderator: mmm the topic or the way they were delivered?

Emanuele: the way they were delivered

Amanda: It was the topic...let's be serious...right? [addressing Emanuele]

- Cinzia:** well one of the worksheets they gave us, the one about the scientists, which was very long and complicated
- Gemma:** a bit too complicated
- Rosa:** we had to ask for his help with the vocabulary several times because we simply couldn't [understand]
- Gemma:** I mean, we went from the animals, yellow, blue, orange, to a worksheet all in English on scientists, it was a bit of jump
- Moderator:** so it was a bit complex

Some of the students argued that not only some of the worksheets were too difficult, but also that the pre- and post-visit activities were not really linked to the CLIL museum visit (during-visit stage):

Extract 116: *Focus group with Marco Polo students (FG 6)*

- Laura:** mmmm I didn't see...I don't know...let's study in class and [then go to the museum and see what we studied]...mmm I don't know
- Valentina:** yes, we could understand better when we studied the minerals...because there you studied the minerals and then you saw the mineral..
- Laura:** while, here it was much more disorganised-
- Sara2:** the worksheets with the exercises
- Laura:** worksheets, exercises that we didn't understand and in the end we completed them, through copying and-d-d...nothing
- Moderator:** so you agree that there wasn't a link between-
- PP:** (overlapping) yes

Moderator: what you did in class and what you did at the museum, like they were two separate things?

PP: yeah

Samuel: yes

Some of the students described the overall structure of the module as confusing in terms of the connections between the in-class and museum lessons, and perceived that the post-visit stage had lacked a moment of guided revision of what they had learnt during the visit:

Extract 117: *Focus group with Marco Polo students (FG 6)*

Moderator: so [what you're suggesting] is a moment, when you come back to school, and recap what you did at the museum-

Sara1: (overlapping) and we talk about it

Moderator: without leaving it...like this

Samuel: yes, because now we did the lessons...then the last lesson was at the museum...and then in the others we did the group presentations...and that was it, the end

In fact, students perceived that it would have been better for them to have a post-visit lesson in which to consolidate the vocabulary and concepts they had learnt at the museum:

Extract 118: *Focus group with Marco Polo students (FG 3)*

Moderator: so, after we came back, do you think it would have been better to talk about what we had done at the museum...I mean [revise] homologues and analogous structures?

Enrico: Maybe so (...)

- Paolo2:** I don't know
- Eleonora:** Maybe, not everything...but something
- Moderator:** yes...to revise it
- Luca:** A lesson...
- Moderator:** A lesson?
- Luca:** yes, to consolidate what we had done at the museum
- Eleonora:** Yes...also to see if we had understood...

The Marco Polo teachers confirmed students' perceptions when saying that the module had lacked of a "recap" moment of the CLIL museum visit at school:

Extract 119: *Fruitful discussion with Marco Polo teachers*

- RP:** did you talk about the topic of the museum visit? Homologous and analogous structures once back at school?
- Stefano TA:** no
- Elena T:** well, they talked about it a little in the posters, but only the people that chose that topic
- Paola T:** yes, and very few of them chose it

In fact, they came to the conclusion that they had missed the opportunity to really integrate students' learning:

Extract 120: *Fruitful discussion with Marco Polo teachers*

Stefano TA: [I think it went well]...maybe the sixth lesson, the recap one, it would have made more sense if we had looked at together at the final part of the museum visit

Extract 121: *Fruitful discussion with Marco Polo teachers*

Elena T: unless you devise another lesson after the museum visit in which you revise the definitions of homologous and analogous [structures] and ask them to either develop the topic further or-

RP: (overlapping) discuss it again with them

Paola and yes, exactly

Stefano:

Elena T: or then you revise at school the concepts we found in the museum

Paola T: agreed

9.2.2.6. Poster and Assessment

As regards this category, asking students to design and present a poster at the end of the module was considered by both the Marco Polo teachers and students as one of the strenghts of the experience. According to Elena T, students enjoyed to be assessed in a different way than the usual oral or written test:

Extract 122: *Fruitful discussion with Marco Polo teachers*

Elena T: But I also think that what worked really well for them was to be assessed in a different manner than the usual test

What students seemed to particularly enjoy was the fact that they could autonomously decide both the design of the poster, and how to present it:

Extract 123: *Focus group with Marco Polo students (FG 4)*

- Rebecca:** [I also liked the idea of designing a poster a lot] because we [rarely] do it
- Anna:** yes I liked it!
- Paolo:** rather than a *verifica scritta* [=written test]
- Rebecca:** rather than an oral or written test in which you memorise the answers to the same questions and then-
- Maria:** (overlapping) it's a presentation that you manage yourself
- Rebecca:** I mean you speak about what you want (...) and then you get evaluated on what you know or don't know anyway
- Anna:** exactly...

However, students also suggested a way to improve the experience of the poster, by presenting it in the museum, instead than in school:

Extract 124: *Focus group with Marco Polo students (FG 7)*

- Sofia:** exactly, it prepares you and it would be nice to do the poster and present it
- Giuseppe:** yeah, I agree
- Moderator:** at the museum? [asking for clarification]
- Sofia:** no, at school
- Tommaso:** mmm inside the museum
- Sofia:** it would be nice to do it there too
- Alessandro:** well, but it would be nice to do it at the museum

- Sofia:** yeah, we could even do a power point as they have the power point projector [talking about the conference room at the Natural History Museum]...
- Moderator:** yes yes
- Sofia:** we could attach it
- Giuseppe:** a power point is much cooler than-

In fact, students highlighted the importance of creating their own learning product as a result of experiences that are not limited to the school classroom:

Extract 125: *Focus group with Marco Polo students (FG 5)*

- Moderator:** I mean the concept is this...would you like it if there was a final product that was all yours?
- Kristina:** well, of course
- Isabella:** it would be nice
- Giuseppina:** well, yeah

Both the Marco Polo teachers and students also reflected on the issues related to the poster and the assessment. In particular, Paola T highlighted how it was challenging to check whether students were consistent in keeping their portfolios in order and to assess the final poster:

Extract 126: *Fruitful discussion with Marco Polo teachers*

- Paola T:** Well, talking about the assessment-
- Elena T:** (overlapping) On one side...
- Paola T:** to be able to carry on the explanation, and, at the same time, keep up with the control and assessment of both their portfolios and posters was exhausting

Extract 127: Fruitful discussion with Marco Polo teachers

Paola T: And then checking if everyone had all the photocopies, because everyone in every group had to have all the photocopies [worksheets] and don't even get me started on that...even the last handed out, the ones that I had asked to be careful [didn't keep them in order]

Stefano TA: And we reminded them multiple times

Paola T: [and still there were worksheets] missing...I got very upset...then, totally opposite, the first year [students] had already put the worksheets in order...I mean we had both extremes

Students confirmed how they struggled in building the portfolios, and in keeping them in order, which also resulted in them getting a lower grade:

Extract 128: Focus group with Marco Polo students (FG 6)

Sara1: I mean yeah, to keep all the worksheets [in order]...and we lost most of them, and then our teacher even asked for them [laughing]...and we only brought half of them

Roberto: there were twenty worksheets and I was missing two of them and I got 6/10 [In the Italian system the highest mark is 10 and the lowest is 1; students pass with 6/10]

Sara1: I was missing three and I got 9+/10

Samuel: yeah, I was missing 2 worksheets as well and she gave me 6/10 and in the oral presentation in English, and I'm very bad at English, she gave me 4/10 [fail]

As regards the poster, the Marco Polo teachers and the Researcher-practitioner agreed that the assessment grid had not been designed in a reliable way, and that asking students to select just one of the topics of the module had failed to give a full picture of students' learning:

Extract 129: *Fruitful discussion with Marco Polo teachers*

- RP:** and what do you think about the assessment? Would you structure the poster in a different way?
- Paola T:** no, but I'd assess it differently...I mean I struggled a lot with the assessment
- Stefano TA:** it was complex
- Elena T:** because it was a group work?
- Paola T:** because I feel like we had to be more objective
- RP:** from my point of view, I realised that the assessment grid that we created only assessed the poster but not the presentation...and so sometimes I didn't know if I was assessing the poster or the presentation
- Stefano TA:** yes, same thing for me
- RP:** I don't know if I'd ask them to do a presentation on just one topic...because then the poster doesn't tell you if they also learnt about the other topics...I mean it's not a test

Another issue related to the organisation of students' presentation of the poster. In particular, teachers were particularly upset that students kept missing classes not to present their poster:

Extract 130: *Fruitful discussion with Marco Polo teachers*

- Elena T:** in my case as well, one day one was missing, the other day, another one was missing...this is the reason why I told you [addressing the RP] "no, they need to work on the poster and on the presentation individually"

In the extract above, Elena T highlighted that students' lack of maturity was also the reason why she did not want them to work on the poster in group. While students in Paola T and Stefano TA's

classes designed and presented the posters in group, Elena T opted for students working alone. In fact, she expressed a very negative attitude towards assessing students' group projects:

Extract 131: *Fruitful discussion with Marco Polo teachers*

RP: for example we assessed every student individually, while you assessed them for a group work [addressing Paola and Stefano]

Elena T: yes, because I was worried “how can I evaluate whether someone has worked more or less than the others?”...in fact, the RP really wanted them to work in groups, but I said NO

RP: (...) students during the focus group told me that they'd have liked to work in group to exchange ideas

Elena T: yes, this is the positive aspect...the problem comes later...this is not the first time...it happened to me with other classes as well...I asked them to do project in groups and one showed up and the other didn't, but when they have to work individually, then I can grade them accordingly...if you don't bring in your project, you fail

Students who worked on the poster in group partially confirmed Elena T's perception, by saying that while some worked and applied themselves, there were others that did nothing and took credit for the overall group project. Some students also commented on the difficulty of meeting up after school to complete the poster:

Extract 132: *Focus group with Marco Polo students (FG 7)*

Sofia: and then they had to present it and they didn't know much and he [name of the other student] complained because well “you can't always work this way”, but I mean...

Alessandro: yeah, he complained and I wanted to say “you did nothing”

- Sofia:** yes, he complained but I just wanted to say “you didn’t do anything, not even read”
- Giuseppe:** well, I admit that I was also sick and I told the [Science teacher 2] “look, I didn’t work on the poster because...without meeting up...we only had time at school and that day I was...sick”
- Moderator:** so there was the problem of working together for the poster?
- PP** yes
- Sofia** yes, but there weren’t problems related to us
- Moderator** of course, logistical problems
- Sofia** problems related to transport

However, other students in a different focus group did not regard having worked in group on the poster as problematic, despite the short time to do so, because they felt their team had been collaborative in establishing roles for every member:

Extract 133: *Focus group with Marco Polo students (FG 6)*

- Sara1:** or they didn’t show up for the oral presentation...things like that
- Moderator:** they didn’t show up? (...) was it difficult for you to work in group?...on the poster?
- PP:** no
- Sara1:** we’re a good group so...
- Sara2:** I mean we assigned roles to everyone in our group...for example, I did all the drawings and graphics and they wrote everything in English
- Roberto:** we didn’t have much time-

Samuel: (overlapping) just two lessons

The Marco Polo teachers also agreed that students' group posters were much more complex and aesthetically beautiful than students' single posters:

Extract: *Fruitful discussion with Marco Polo teachers*

Paola T: it's also true that when you see them working in groups it's really nice...

Elena T: well, the posters of your students are so much more beautiful than ours

However, they also acknowledged that not every student showed the same interest and commitment in producing the final products:

Extract 134: *Fruitful discussion with Marco Polo teachers*

Elena T: I was a bit disappointed though because I thought that being students of a *liceo artistico* they'd have more fun...even though, some of them did a great job, for example, I loved Laura's

Paola T: which one was it? The one with the fruit and the cat? Yes, it was beautiful

Elena T: there was another student who designed a letter and inside they had put the homologous and analogous structures...the examples

In fact, when analysing the poster (artifcats) produced by the students, while some of them put a lot of creative efforts into their work (Image 16), others did not (Image 17 and Extract135):

Image 10: Poster Marco Polo Art Students

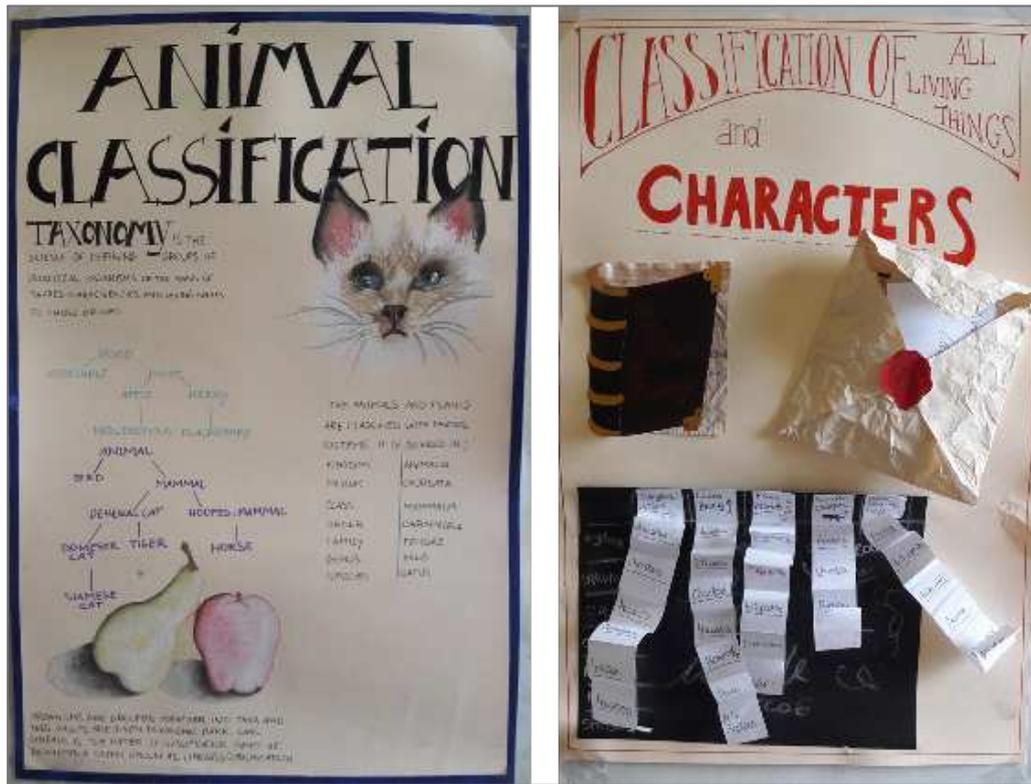
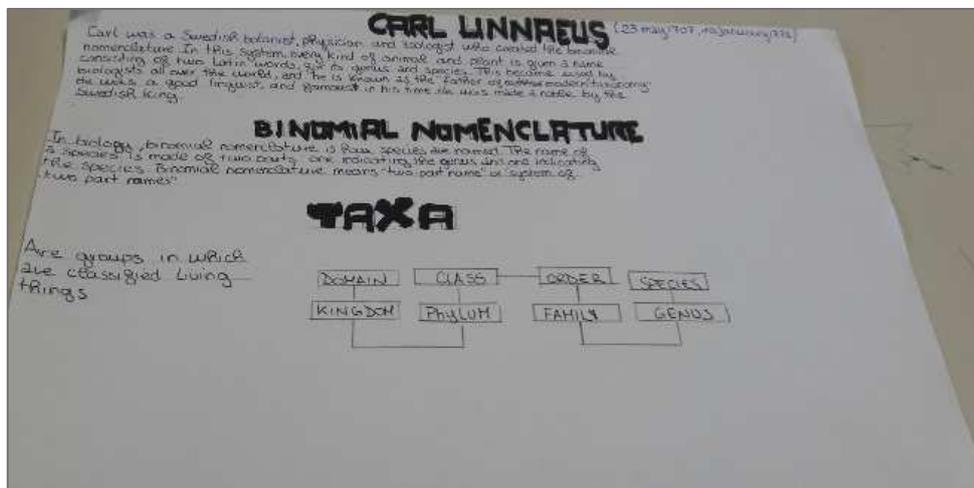


Image 11: Poster Marco Polo Art Students



Extract 135: *Focus group with Marco Polo students (FG 6)*

Samuel: but this year, I didn't really like it with the poster-r

The Marco Polo teachers also reflected on whether students had actually reached the learning objectives of the module. Elena T, for example, felt that they had mostly copied and pasted contents from Wikipedia:

Extract 136: *Fruitful discussion with Marco Polo teachers*

RP: anyway, I was particularly impressed by the use of the scientific vocabulary on the posters Elena

Elena T: yes, but lots of them just copied and pasted

Paola T: yes, but you also need to be able to use them in the right context

RP: you could see the ones that had copied from Wikipedia, but others tried to write coherent sentences on their own...

Stefano TA: yes, our students as well

What emerges from the extract below is also that students did not all reach the same learning objectives, and while some showed understanding of animal classification, others were still confused about some of the topics dealt with in the module:

Extract 137: *Fruitful discussion with Marco Polo teachers*

Elena T: I don't know...but I feel like we got to a good point with them, do you agree?
[addressing Paola]

Paola T: Yes yes

Elena T: I mean you know them better [addressing Paola]

Stefano TA: yes, I feel like I read something interesting on one of the posters...the groups that chose this topic [homology-analogy] put classification in a separate box, explaining the parameters...so, I feel like someone understood

Elena T: not in our groups...they talked about Ray like he had something to do with binomial nomenclature

The last issue that emerged when reflecting on the assessment related to the integration of content and language. As the student in the extract below suggested, while students' attitudes towards the CLIL module were extremely positive, some were upset about receiving a lower grade because of their low competence in English:

Extract 138: *Focus group with Marco Polo students (FG 6)*

Sara1: alright...for example, for me that I'm good at science, I have good grades...I had to...let's say...lower my grade because I don't know English and, especially, I don't know the pronunciation...and so...I think this is a bit sad that you get a lower grade in a subject because of another that has nothing to do with it...but it's also nice that you learn more words-s, studying is more fun and, above all, it's nicer to go to museums if...you also take part in an interactive visit...

9.3. Data analysis in relation to Research Question 3: impact on students' attitudes

Our Research Question 3 was “*What impact does participation in the CLIL museum visit have on students' attitudes?*”. To answer this question, we first analysed students' responses to the 9 item-scale (Part 1 and 3) in the questionnaire aimed at measuring students' attitudes towards the CLIL museum visit. In so doing, we first performed a Factor analysis of the scale and identified two factors. We thus evaluated how students responded to both factors, through comparing students from the *Liceo Artistico* Marco Polo (Group 1), who had participated in the pre-visit activities as part of the school-museum integrated CLIL module (see Chapter 7), with students who had only participated in the CLIL museum visit, without the preparation (Group 2). We were particularly interested in investigating the impact of students' participation in pre-visit activities at school on the attitudes towards the CLIL museum visit. Thus, we combined and integrated students' quantitative responses with their qualitative responses and focus group discussions. While the

open-ended responses were collected from students in both Group 1 and Group 2, the focus groups were only conducted with students in Group 1 (see Paragraph 8.6.). We also integrated students' qualitative data with teachers' qualitative responses and fruitful discussions, and the Researcher-practitioner's journal (see Paragraph 8.6.) so as to triangulate different sources of data and perspectives from the participants. In fact, our aim was to get a deeper understanding of the aspects, which contributed to students' attitudes.

Thus, in Paragraph 9.3.1., we will present the analysis of students' quantitative responses, while in Paragraph 9.3.2., we will outline our integrated analysis of participants' qualitative data.

9.3.1. Students' quantitative responses in the questionnaire

As regards the quantitative data, we first performed a factor analysis (Principle Component Analysis with a Direct Oblimin rotation) of students' responses to find out how many factors there were in the attitude towards the CLIL museum learning visit parts of the questionnaire. Our 9-item scale resulted from the combination of Part 1 and 3 of the questionnaire (see Appendix C), as they both addressed students' attitudes and consisted of four-point Likert scale items (see Figures 26 and 27).

Figure 26: Part 1 of students' questionnaires

PART 1
This section regards your perception of the CLIL museum visit

1. In a scale from 1 to 4, where 1=strongly disagree e 4=strongly agree, indicate the extent to which you agree or disagree with the following statements regarding your perception of the museum visit.

		1	2	3	4
a	Overall, the museum visit was in line with my expectations				
b	It was difficult to learn new things through English at the museum				
c	I enjoyed using English in a different context other than school				
d	If the museum visit had been in Italian, I would have enjoyed it much more				
e	I would recommend this experience to others				
f	I didn't find the museum experience inspiring at all				
g	A museum is a good context where to practise a foreign language outside of the school context				

Figure 27: Part 3 of students' questionnaires

PARTE 3
This section regards your perception/evaluation of the CLIL museum visit

6a. To what extent did you enjoy the museum visit?

- Not at all
- Very little
- Enough
- Very much

6b. Why?

7a. To what extent do you rate this experience useful?

- Not at all
- Very little
- Enough
- Very much

7b. Why?

Thus, the final 9-item scale consisted of the following items:

Item 1a: Overall, the museum visit was in line with my expectations

Item 1b: It was difficult to learn new things through English at the museum

Item 1c: I enjoyed using English in a different context other than school

Item 1d: If the museum visit had been in Italian, I would have enjoyed it much more

Item 1e: I would recommend this experience to others

Item 1f: I didn't find the museum experience inspiring at all

Item 1g: A museum is a good context where to practise a foreign language outside of the school

Item 6a: To what extent did you enjoy the museum visit?

Item 7a: To what extent do you rate this experience useful?

Despite our 9 item-scale being short in comparison to scales in other studies on attitudes (i.e. Lasagabaster 2005, 2011; Dörnyei and Taguchi 2009), we believe that this scale still helps us in getting a first-hand idea about students' attitudes towards out-of-school activities that integrate content and foreign language learning.

Before conducting the analysis, we verified that our data set was suitable for factor analysis. In particular, we checked the following conditions (see Pallant 2013, 189-190): sample size, and the strength of the relationship among the items (variables). Our sample size was greater than 300 cases (N=322), which according to Tabachnik and Fidell (2013 quoted in idem, 190) is "comforting" for factor analysis. Also, we inspected the correlations matrix (see Figure 28) and found evidence of many coefficients greater than .3.

Figure 28: Correlations matrix generated by SPSS for the 9-item attitude scale of students' questionnaires

		Correlation Matrix								
		1a. Overall, the museum visit was in line with my expectations	1b. It was difficult to learn new things through English at the museum_r	1c. I enjoyed using English in a different context other than school	1d. If the museum visit had been in Italian, I'd have liked it much more_r	1e. I would recommend this experience to others	1f. I didn't find the museum experience inspiring at all_r	1g. A museum is a good context where to practise a foreign language outside of the school context	6a. To what extent did you enjoy the museum visit	7a. To what extent do you rate this experience useful?
Correlation	1a. Overall, the museum visit was in line with my expectations	1.000	.004	.286	-.136	.415	-.332	.421	.467	.308
	1b. It was difficult to learn new things through English at the museum_r	-.004	1.000	.316	-.411	-.105	-.043	.185	.196	.196
	1c. I enjoyed using English in a different context other than school	.286	.316	1.000	.452	.296	.279	.477	.382	.340
	1d. If the museum visit had been in Italian, I'd have liked it much more_r	-.136	-.411	.452	1.000	-.121	-.083	.237	.234	.204
	1e. I would recommend this experience to others	.415	-.105	.296	-.121	1.000	-.416	.306	.524	.426
	1f. I didn't find the museum experience inspiring at all_r	-.332	-.043	.279	-.083	-.416	1.000	-.248	.393	.347
	1g. A museum is a good context where to practise a foreign language outside of the school context	.421	.185	.477	.237	.306	-.248	1.000	.404	.385

Finally, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value was .815, which was greater than the suggested value of .6 (Kaiser 1974), and the Bartlett's Test of Sphericity was statistically significant (Sig. .000) supporting the factorability of the correlation matrix (see Table 23).

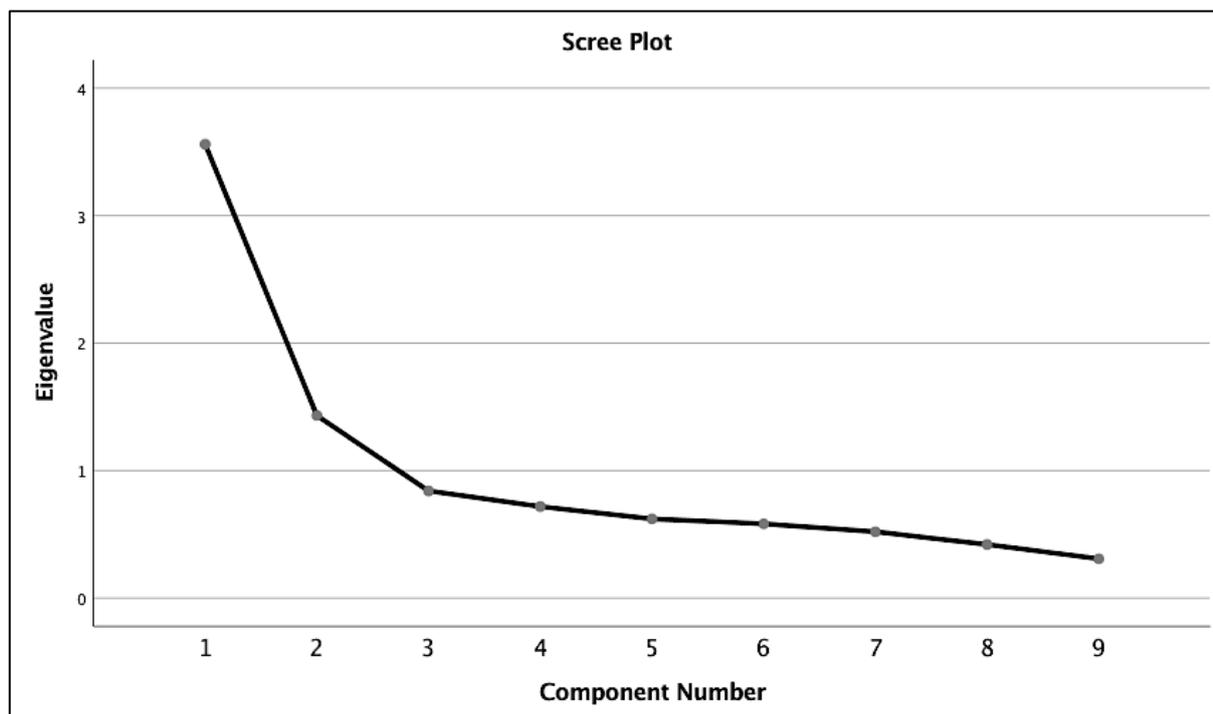
Table 23: Indicators KMO and Bartlett's Sphericity Test for the 9-item attitude scale of students' questionnaires

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.815
Bartlett's Test of Sphericity	Approx. Chi-Square	802.244
	df	36
	Sig.	.000

We thus conducted the Principal Component Analysis, which revealed the presence of two components with eigenvalues exceeding 1, explaining 39.5% (Factor 1), and 15,9% (Factor 2) of the variance respectively (see Table 25). As Calvo (1993 quoted in Lasagabaster 2005) claims, «a good factor analysis should explain at least 50% of the total common variance, each of the different factors explaining at least 5% of it». In our case, the two-component solution explained

a total of 55,45% of the variance (see Table 25), thus meeting Calvo’s (ibid) assumption for a good factor analysis. We also inspected the screeplot, which revealed a clear break after the second component (see Figure 29).

Figure 29: *Screeplot of components resulting from Factor Analysis as generated by SPSS*



This was further supported by the results of the Monte Carlo PCA for parallel analysis software (see Table 24).

Table 24: *Comparison of eigenvalues from Principal Component Analysis (PCA) and criterion values from parallel analysis*

Component	Actual eigenvalue from PCA	Criterion value from parallel analysis	Decision
1	3.559	1.265	Accept
2	1.432	1.171	Accept
3	.840	1.106	Reject
4	.718	1.045	Reject

The first factor (component) comprised attitudes towards the overall CLIL museum experience, while the second factor encompassed attitudes towards the use of English outside school:

Factor 1: Attitudes towards the overall CLIL museum experience

Item 1a: Overall, the museum visit was in line with my expectations

Item 1e: I would recommend this experience to others

Item 1f: I didn't find the museum experience inspiring at all

Item 1g: A museum is a good context where to practise a foreign language outside of the school

Item 6a: To what extent did you enjoy the museum visit?

Item 7a: To what extent do you rate this experience useful?

Factor 2: Attitudes towards the use of English outside school

Item 1b: It was difficult to learn new things through English at the museum

Item 1c: I enjoyed using English in a different context other than school

Item 1d: If the museum visit had been in Italian, I would have enjoyed it much more

Each factor with the loading values of each variable is presented in the rotated factor matrix lists (see Table 25).

Table 25: *Items comprised in each factor and their effect (Pattern matrix)*

Variables	Factors	
	1	2
Item 1a	.726	
Item 1b		.799
Item 1c	.350	.597
Item 1d		.811
Item 1e	.760	
Item 1f	.686	
Item 1g	.528	
Item 6a	.779	
Item 7a	.681	
Variance explained (%)	39.5	15.9

At a closer inspection of the pattern matrix above, we noticed that all items loaded strongly on either Factor 1 or 2, except for Item 1c, which loaded on both. However, we decided to identify this item in Factor 2, as it presented a stronger loading on this component.

In order to understand the internal reliability of the 9-item scale, we ran a Cronbach's alpha, which is reported in Table 26.

Table 26: *Cronbach's Alpha of the 9-item scale measuring students' attitudes towards the CLIL Museum experience*

	Items	Cronbach's α
Factor 1	1a, 1e, 1f, 1g, 6a, 7a	.792
Factor 2	1b, 1c, 1d	.661
		.781

Despite Factor 2 showing a lower value of internal consistency (.661), probably due to the fact that the variables considered for this factor are only three, the test revealed a total coefficient equal to .781 (see Table 3). As the total coefficient indicates a satisfactory level of internal consistency of our scale, we decided to maintain the distinction of the variables in two factors (Factor 1 and 2), as indicated by the Factor Analysis.

The second step in the analysis of the data gathered through students' questionnaires consisted in evaluating students' attitudes. Overall the large majority of the students in our sample showed very positive attitudes towards both the overall CLIL Museum Experience (Factor 1; $M=3.48$, $SD=.46$) and the Use of English as a FL in an out-of-school context (Factor 2; $M=3.2$, $SD=.69$). Since the data were not normally distributed, a non-parametric Mann-Whitney U Test was performed to evaluate whether there was a significant difference between how students in Group 1 (taking part in the school-museum integrated CLIL module) and Group 2 (not taking part in the school-museum integrated CLIL module) responded to Factor 1. The test revealed that there was no significant difference between students in Group 1 ($Md=3.6$, $n=197$, mean rank=154.42) and Group 2 ($Md=3.6$, $n=116$, mean rank=161.38), $U=10918$, $z=-.663$, $p=.5$ (see Table).

Table 27: Results of Mann-Whitney U Test between Group 1 and 2 in relation to Factor 1

	n	Md	Sig.
Group 1	197	3.6	
Group 2	116	3.6	.5
Total	313		

*Significance (two-tailed) = $p < 0.05$

We thus carried out a second Mann-Whitney U Test to evaluate whether there was a difference in the attitudes of students in Group 1 and 2 towards Factor 2. The test revealed that students in Group 2 responded significantly more positively (Md=3.6, n=116, mean rank=191.12) than students in Group 1 (Md=3.3, n=201, mean rank=140.46), $U=7932$, $z=-4.825$, $p=.000$, with a medium effect size $r=.3$ (see Table).

Table 28: Results of Mann-Whitney U Test between Group 1 and 2 in relation to Factor 2

	n	Md	Sig.
Group 1	201	3.3	
Group 2	116	3.6	.000
Total	317		

*Significance (two-tailed) = $p < 0.05$

These results reveal that overall students showed very positive attitudes towards both factors, but there was a significant difference in the way Group 1, who participated in the CLIL museum experience as part of a CLIL module that included CLIL-related tasks at school, and Group 2, who only participated in the CLIL museum experience, responded to Factor 2. The interesting result is that Group 2 seem to have responded more positively to the use of English as a FL in an out-of-school context (Factor 2) than Group 1.

In order to explain these results, we decided to investigate whether the type of school attended could have affected students' attitudes towards the use of English as a FL. Indeed, while Group 1 was only comprised of students attending *liceo artistico*, which curriculum is focused around art subjects, Group 2 was comprised of students attending *liceo linguistico*, *liceo scientifico*, and *istituto professionale*, which curriculum is characterized by a higher number of both science and

English language classes per week than *liceo artistico*. We thus decided to investigate whether the type of school could have had an impact on the significant more positive attitudes of Group 2 towards Factor 2, despite the fact that this group had not taken part in the pre-visit activities of the school-museum integrated CLIL module before visiting the museum.

To this aim, we performed a Kruskal-Wallis Test to evaluate whether there was a significant difference in the attitudes towards Factor 2 across Art (*liceo artistico*), Science (*liceo scientifico*), Language (*liceo linguistico*), and Professional (*istituto professionale*) students. The test revealed a significant statistical difference in students' attitudes across types of school (Art, n=201; Science, n=62; Language, n=38; Professional, n=16), ($\chi^2(2, n=317) U=25.32, p=.000$) (see Table).

Table 29: Results of Kruskal-Wallis Test across Art, Science, Language, and Professional students in relation to Factor 2

Students	n	Md	Sig.
Art	201	3.3	
Science	62	3.6	
Language	38	3.6	
Professional	16	3.6	.000
Total	317		

*Significance (two-tailed) = $p < 0.05$

To establish the reliability of the Kruskal-Wallis Test (Pallant 2013), we carried out six follow up Mann Whitney U Tests between Art and Science students (Test 1), between Art and Language students (Test 2), between Art and Professional students (Test 3), between Science and Language students (Test 4), between Science and Professional students (Test 5), and between Language and Professional students (Test 6). Test 1 to 3 revealed a significant difference between Art and Science (Test 1, $p=.002, r=.2$), Art and Language (Test 2, $p=.000, r=.2$), and Art and Professional students (Test 3, $p=.004, r=.2$), with Language, Science, and Professional students showing more positive attitudes than Marco Polos towards Factor 2. On the other hand, Test 4 to 6 revealed no significant difference between Science and Language students (Test 4, $p=.26$), Science and

Professional students (Test 5, $p=.2$), and between Language and Professional students (Test 6, $p=.6$).

9.3.2. Qualitative data analysis

As regards the qualitative data, we framed the analysis of students' attitudes within the distinction between Factor 1 and 2, as resulting from the quantitative analysis above. In particular, we integrated the data collected through students' open responses in the questionnaire (Questions 6b and 7b) and focus group discussions, teachers' open responses in the questionnaire (Questions 9 and 10; see Appendix D), and the Researcher-practitioner's journal. Thus, we identified different themes, which we clustered into overarching categories in relation to each factor.

9.3.2.1. Factor 1: Attitudes towards the overall CLIL museum experience

In investigating students' attitudes towards the overall CLIL museum visit (Factor 1), we identified two categories: The museum visit as more interesting and different than school, and Attitudes towards the methodology.

The museum visit as more interesting and different than school

In answering to why they enjoyed the CLIL museum experience, students across the two groups, types of school and types of museum visited agreed that it was the *aesthetics of the museum* and the presence of *objects and specimens* which made learning in the museum different and more interesting than learning in school. As regards the *aesthetics of the museum*, students commented on both its design and the way objects were exhibited:

Open ended response: *S163 (Group 1, Marco Polo Art student), S259 and S281 (Group 2, Science students)*

S163: because the building and the exhibition design are very beautiful and interesting

S259: it's able to engage and so it encourages visitors to learn things in an easy way

S281: the spaces were well organised and structured

In the quotes above, the three students commented on the design of the *Natural History Museum* of Venice, which they thought was not only beautiful but also conducive of learning. However, not all students were enthusiastic about the museum itself, as we can see from the open ended responses below:

Open ended response: *S145 and S146 (Group 2, Professional students)*

S145: I don't like museums that much

S146: I don't like museums

On the other hand, the majority of the students had very strong affective reactions towards the objects and specimens exhibited in both the art and science museums:

Open ended response: *S253 (Group 2, Language student), and S157 (Group 2, Professional student)*

S253: because there was plenty of information about living beings and lots of specimens

S157: because I could see splendid frescos and experiment with English

During the focus group discussions, the Marco Polo Art students concurred that the main difference between learning in the museum and learning in school was that the museum is naturally multisensorial and multimodal and provides a real life experience:

Extract 139: *Focus group with Marco Polo Art students (FG 2)*

Claudio: I felt actively engaged but...how can I say this?...even a bit more...because, for example, when I entered the rooms, I felt like I was entering the animal world, how they reacted...it was very [miming amazement]

Extract 140: *Focus group with Marco Polo Art students (FG 1)*

Kristina: because...well...I had never taken part in a museum [workshop] in English and also because it was...other than the language...in the museum, there were-I mean I had never seen stuffed-real animals, STUFFED [emphasis]...I kept my eyes [wide] open [miming]...to look at them...in general...so it was beautiful...engaging

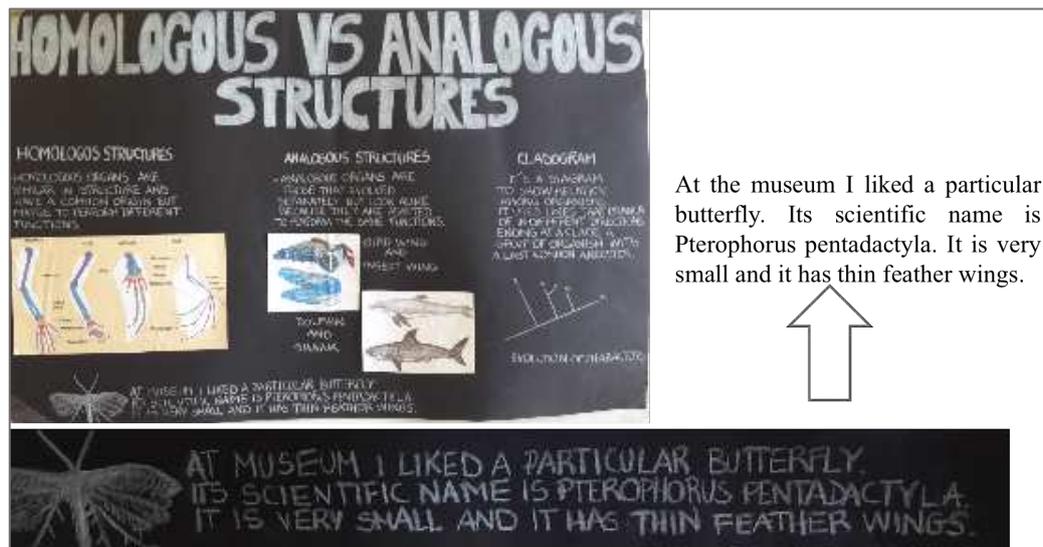
The Researcher-practitioner often commented in her journal on students' strong affective responses to the museum objects:

Extract 141: *Entry 8 in Researcher-practitioner's (RP) journal*

RP: I also had the time to show them the stuffed animals in the workshop room. Students were fascinated. While I was monitoring the groups, I asked them which specimen they had liked best in the museum and one of them told me he wished to have a leopard in his room.

The same fascination with the museum specimens was also expressed by some of the Marco Polo Art students in their posters (see Image 18):

Image 12: Poster Marco Polo Art students



The Marco Polo Art students described in detail the museum atmosphere, and the aspects, such as the lighting, the disposition of the specimens, and their smell, which helped in creating a realistic illusion of “wilderness”:

Extract 142: Focus group with Marco Polo Art students (FG 4)

Maria: well, something that kinda gave me the creeps...the space, as she said, was really dark, the gorilla hung on to the wall and the smell of the closed environment and of corpse-

Rebecca: stuffed!!

Maria: no, it was very [disgusted sound][group laughter]

Anna: did you see the fishes in the jars? [unclear because of cross talk]

Sandro: well, ok that I don't get shocked easily but...to see organs inside [liquids?] has quite an impact on you...the little monkey hang that way, with all those organs [laughing]

However, while on the one hand, students expressed wonder and surprise about the specimens, on the other, some students, such as Giulia in the extract below, raised ethical issues as regards the exhibition of stuffed animals:

Extract 143: Focus group with Marco Polo Art students (FG 4)

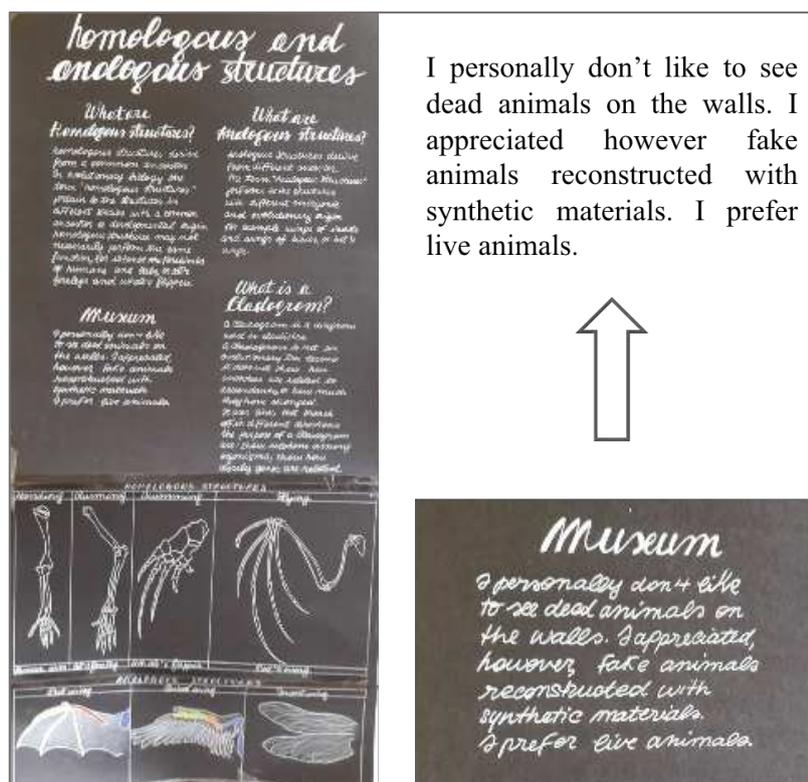
Rebecca: well, and the tiger that was emptied, this way [miming]...but what really gave me the creeps was the little mummy, that...

Sandro: oh no, that one was fascinating because-

Giulia: (overlapping) the point is that I'm an animal activist, so I don't approve

Giulia also reported her ethical concerns in her poster, which she presented at the end of the school-museum integrated CLIL module (see Image 19).

Image 13: Poster Marco Polo Art students



The Researcher-practitioner described the same strong negative reactions as expressed by other Marco Polo Art students:

Extract 144: *Entry 8 in Researcher-practitioner's (RP) journal*

RP: I had two students who didn't want to enter in the *Giuseppe De Reali* room because of the stuffed animals hung on the wall. One of the students started crying, saying that, being an animal activist, she couldn't bear the sight of so many dead animals.

In one of the focus groups, the Marco Polo Art students discussed the negative way in which some people reacted to the exhibition of stuffed animals and how this had an impact on their group work and visit in general:

Extract 145: *Focus group with Marco Polo Art students (FG 3)*

Enrico: surely not the other colleagues [cross talk] (...) the problem was that groups weren't really made with a logic and I was with [name of other student] and she was scared of the dead animals-

Eleonora: (overlapping) yeah, she started crying

Enrico: and I can't do a visit with a person that is scared...it's not her fault, poor thing...maybe you had to censor [group laughter] (...)

Paolo2: But it's a museum of animals...what should they do? Not show them?

?: [Why was she scared?]

Enrico: Because it bothered her...[cross talk]

Moderator: Because she's vegan

Eleonora: Yes

When asked about their students' affective reactions during the CLIL museum visit, the English and PE teachers accompanying one of the two groups of Language students visiting the *Natural*

History Museum confirmed that their students seemed both fascinated and repelled by the specimens (see Image 20):

Open ended response: *T7 and T8 (liceo linguistico)*

T7: interest, pleasure, sometimes reactions of wonder when looking at some of the specimens

T8: joy and pleasure in general; disgust in the *Miani's* room

Image 14: *Giovanni Miani room at the Natural History Museum of Venice*



However, even when students showed negative reactions to the specimens, these were always combined with enthusiasm towards the opportunity of engaging with “authentic” specimens:

Open ended response: *S64 (Group 1, Marco Polo Art student)*

S64: even if the animals made me sick, I could observe them from close up

When asked if there was a difference between CLIL at school and CLIL at the museum, students explained that they felt much more attentive at the museum than at school:

Extract 146: *Focus group with Marco Polo Art students (FG 2)*

Luna: (...) while in class it's more of an attention like "I HAVE to pay attention", here it was an attention-

Claudio: (overlapping) wanted

Luna: because of my INTEREST (...)

Indeed, students often referred to the school lessons as mundane, predictable and passive, recognising the value of a visit to the museum as a truly unique experience:

Extract 147: *Focus group with Marco Polo Art students (FG 3)*

Luca: because at school, to stay five hours [sitting at a desk] (...) maybe it's the last hour and you're TIRED and you don't pay attention, while THERE [at the museum] (...)

Enrico: you're more encouraged to study... I mean you're more encouraged to learn than in the classroom, because when you're in the classroom [unclear because of cross talk]... I can attend this lesson [meaning CLIL] but, even if it's different from what we normally do, it's always a lesson with a teacher... while if you do it at the museum-

Luca: (overlapping) it's more fun

Methodology of the CLIL museum visit

Students concurred that it was not only the museum setting to have inspired them, but also the methodology of the visit. Indeed, they often acknowledged how the CLIL museum experience had turned out to be different from the "traditional" guided tours and much more engaging and fun that they had expected:

Open ended response: *S251 (Group 2, Language student) and S307 (Group 2, Science student)*

S251: it went beyond my expectations. I expected a "traditional" lesson and less interactive

S307: it was something different from a traditional visit

Extract 148: *Focus group with Marco Polo Art students (FG 1)*

Isabella: I also put 'surprised' because I didn't expect it to be...something so-o beautiful

Kristina: yeah [nodding]

Moderator: what did you expect?

Isabella well, I expected the usual boring visit...you go there and walk around the entire museum

Kristina: (overlapping) Yeah me too

Isabella: you stand there and feel like you wanna sleep and instead it wasn't like that...it was more engaging and fun and useful

Both students in Group 1 and 2 acknowledged that the interactive component of the CLIL museum visit greatly contributed to the novelty of the learning experience as a whole:

Extract 149: *Focus group with Marco Polo Art students (FG 7)*

Moderator: ok, so a 'new way to visit the museum'. Why? What do you usually do on a school trip [to a museum]?

(...)

Serena: yes, and then we just follow a guide and we stay there still and straight like poles, staring at the [objects]

Moderator: so is it always...frontal?

Sofia: yes

In reporting the comments of the Italian teacher visiting *Ca' Rezzonico* with a group of Science students, the Researcher-practitioner also described how students felt particularly engaged by the active methodology employed during the visit:

Extract 150: *Entry 13 in Researcher-practitioner's (RP) journal*

RP: However she also told me “you can tell this is a bit of a younger approach”. In the sense that the visit wasn't frontal and all students participated in a way or the other.

Students often connected their positive attitudes to their engagement in group and enquiry- based activities:

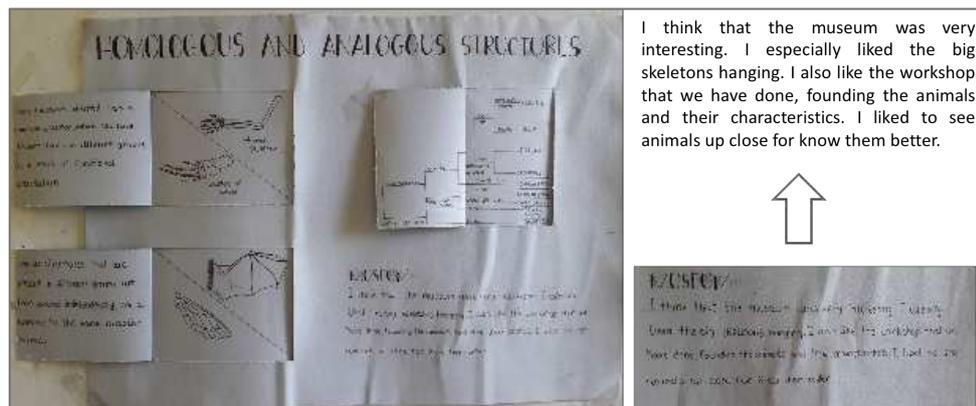
Open ended response: *S277 (Group 1, Marco Polo Art students) and S266 (Group 2, Science student)*

S77: I really loved it because it was not only very interesting but also the group work made me feel very engaged

S266: I had a lot of fun, and I very much enjoyed the fact that we were able to complete the worksheets that we had been given through collecting the information in the museum

In the following Image, one of the Marco Polo Art students described how he had loved to look for the animals in the museum galleries of the *Natural History Museum* of Venice, also because of the opportunity to see the animals “up-close”:

Image 15: *Poster Marco Polo Art students*



Indeed, in the focus groups, the Marco Polo Art students said that touring the museum galleries on their own with the aim of completing the worksheets almost made them forget that the experience was school related:

Extract 151: *Focus group with Marco Polo Art students (FG 3)*

Enrico: (...)I felt quite actively involved in the museum visit, because, generally speaking, when you go to a museum with a guide and your class...usually, you listen only to the guide and maybe you ask them questions, but it wasn't like that...it was more like a game...something different...it didn't even feel like you were doing something school related and so it was interesting...

The Marco Polo Art students often expressed surprise in relation to how well they were able to work in group in the museum.

Extract 152: *Focus group with Marco Polo Art students (FG 6)*

Sara2: because it naturally encouraged you to collaborate with the others...it was nice...I didn't really expect that our group would act this way...talking, reasoning about what we had to

Sara1: thank you [sarcastic]

Sara2: I'M SERIOUS [group laughter] it was surprising...and I know you agree with me as well [addressing Sara1]

They often related their feeling of amusement to the fact that the museum visit felt like a treasure hunt, and thus involved an element of competition with their peers:

Extract 153: *Focus group with Marco Polo Art students (FG 5)*

Amanda: I put 'amused', because I had fun [laughing], 'hooked' and 'engaged', because we all felt engaged...it felt a bit like a treasure hunt [laughing]

Extract 154: *Focus group with Marco Polo Art students (FG 6)*

Samuel: I chose 'fun', 'useful', 'different' and 'engaging' because there was also an element of competition, of arriving first

Again in the focus groups, students also outlined how working in groups in the museum also had some negative aspects. In the extract below, Anna, for example, described how some students tended to get distracted, while, others, usually the students who were better at English, would take responsibility for the completion of the work:

Extract 155: *Focus group with Marco Polo Art students (FG 4)*

Anna: [one of the negative aspects was] distraction, because there were some people that did nothing, while someone else was doing all the work...there was also a lot of chatting and through speaking, also in English, you got distracted maybe for a word or something else while the others moved on...and there was also poor collaboration sometimes because in one group you had one person that was a bit better and was given all the work to do while the others did nothing

In another focus group, Sandro claimed that collaboration during the group work did not only depend on students' level of English, but also on their interest towards the activity:

Extract 156: *Focus group with Marco Polo Art students (FG 4)*

Sandro: yeah, I mentioned that there were those who were attentive but also those who kept getting lost and also there was very little collaboration because there were those who were bored and one went on and the other, the poor guy that was getting the work done was left behind [cross talk]

However, when asked if they would have preferred to work more with the guide during the first phase of the visit at the *Natural History Museum* of Venice, students argued that they enjoyed to be autonomous in the museum galleries:

Extract 157: *Focus group with Marco Polo Art students (FG 7)*

Tommaso: I also liked that they left us free

Giuseppe: yeah, THAT'S TRUE

Rosa: oh yes

Tommaso: because if we just had to stay still listening to someone explaining to us everything...

Alessandro: ah-h-h [miming terror]

Sofia: boring

Tommaso: instead we were free to walk around

While autonomy was one of the aspects that they most valued as regards the CLIL museum visit, students also claimed that they felt like they still had the chance to ask for support if they needed to:

Extract 158: *Focus group with Marco Polo Art students (FG 5)*

PP: no-o-o...it was nice to work alone

- Cinzia:** it was nice to work alone, but it was also right (...) that you came to check how we were doing...
- Julie:** I mean it's not like you were totally absent, you were there
- Cinzia:** exactly
- Amanda:** so if we needed you, we could come and ask you for help, right? [asking for the other participants' confirmation] so it was ok this way
- Moderator:** ok...so there was a structure but you felt free-
- PP:** (overlapping) yes
- Moderator:** to observe what you wanted and concentrate on what you wanted?
- PP:** yes

In fact, the Marco Polo Art students seemed to like the fact that the CLIL museum visit had a visible structure, which still allowed them to observe the specimens according to their interest:

Extract 159: *Focus group with Marco Polo Art students (FG 3)*

- Enrico:** We had to look for the specimens that were listed in the...worksheets...and you didn't have to talk just for the sake of talking
- Eleonora:** Yes, we had to walk around the museum, looking at the specimens, one by one...
- Moderator:** So, you liked the fact that it had a bit of a structure?...an objective?
- PP:** Yes
- Luca:** [It was] more engaging

However, some students argued that, while enjoying working alone in the museum galleries, they still have preferred to have more interaction with the museum educator:

Extract 160: *Focus group with Marco Polo Art students (FG 4)*

- Moderator:** [so you'd have preferred] to interact with the guide-
- PP:** more questions
- Moderator:** something like “questions and answers” [interaction]?
- PP:** yes yes!
- Moderator:** alright then, a bit more interaction?
- Giulia:** yes yes, but to work this way wasn't negative at all...the only thing was that you concentrated on a small number of things leaving out others that-

9.3.2.2. Factor 2: Attitudes towards the use of English outside of school

In investigating students' attitudes towards the use of English as a FL in an out-of-school context (Factor 2), we identified four categories: *Opportunity to practice English outside of the classroom*, *Authentic communication*, *Fostering of affective factors*, and *Attitudes towards topic in CLIL beyond the classroom*.

Opportunity to practice English outside of the classroom

When asked about the reason why students found the CLIL museum experience useful, the majority responded that it was because they had the chance to practice and use their English:

Open ended response: *S24 (Marco Polo Art student) in Group 1, and S252 (Language student), S272 (Science student), and S155 (Professional student) in Group 2*

- S24:** it helps to practice this second language [English] a lot

S252: I used English outside of the school context

S272: I spoke in English, exploiting and applying the grammar rules of English

S155: I could practice my English

The Marco Polo Art students often claimed that they very rarely had the opportunity to use English in real authentic communicative contexts. However, when asked if they had ever used English outside of school before taking part in the CLIL museum experience, they listed a number of different activities in which they often engaged (i.e. giving directions to tourists, talking to friends and family friends, going to an English theatre performance, listening to music, taking part in exchange programmes abroad):

Extract 161: *Focus group with Marco Polo Art students (FG 1)*

Moderator: alright, let's think about the experience that we did at the museum...hem...before the visit, had you ever used English outside of school?

(...)

Elisa: around...while travelling

Bianca: when someone asks me something in English, for example...“where is”-
“where is *Piazzale Roma*?”-

Isabella: (overlapping) information

Kristina: yeah, exactly

Bianca: or, you see, my aunt had friends-English friends and so we could only speak in English to communicate

Extract 162: *Focus group with Marco Polo Art students (FG 6)*

Moderator: did you ever take part in a museum visit through a foreign language?

Samuel: the theatre in English

Extract 163: *Focus group with Marco Polo Art students (FG 6)*

Valentina: I have a Norwegian friend, so we only speak in English...

Laura: My best friend is English, so we only speak in English...

Authentic communication

As regards this category, students often perceived using English to learn about contents in the museum as more authentic and useful than at school:

Extract 164: *Focus group with Marco Polo Art students (FG 5)*

Gemma: well, let's say that at school they [teach us?] the meaning and they explain the grammar, but...if you study English at school [it doesn't mean that you learn it]...I mean, outside, to speak with English people, to speak and listen...it's something completely different...it's almost like it's a different language...in the end, it's much more difficult right?!

In the extract above, Gemma underscores how it is one thing to learn English at school and another to use it outside, and how difficult it is to bridge the gap between the classroom and the world beyond. In the extract above, the student also referred to the ESL pedagogy in the school classroom as very much focused on the explicit teaching of grammar rules and meaning. However, the Marco Polo Art students also highlighted how using English outside school was more stimulating, as it gave them the chance to talk about “concrete” things:

Extract 165: *Focus group with Marco Polo Art students (FG 3)*

Jessica: (overlapping) it's also different from staying in the classroom...because you can better experiment with the language

Moderator: Ok...what do you mean by “you can better experiment with the language”?

Jessica: Hmmm...you're more stimulated...to speak it, [because] you're talking about concrete things

In another focus group session, Isabella highlighted that what she liked about using English in an out-of-school context was its novelty in relation to both the contents and the language:

Extract 166: *Focus group with Marco Polo Art students (FG 1)*

Isabella: (...) it's nice to speak outside of the school context [and] in English, because you don't use always the same words, the same things, and you learn new ones (...)

While the CLIL museum experience did not have an “authentic” communicative goal per se, given that the students shared Italian as their first language, they still perceived it as closer to a “real” situation than a CLIL lesson at school:

Extract 167: *Focus group with Marco Polo Art students (FG 5)*

Julie: (...) if you go abroad you learn the language much more willingly and much more...easily because you're in contact with people from that culture...and so I think it was much more useful to go to the museum and use the language instead of just [passively listening to] explanations at school that you need but maybe it's more boring (...)

Despite the somehow “artificiality” of the experience, students also reported to have used English for a communicative purpose with the invigilators:

Extract 168: *Focus group with Marco Polo Art students (FG 7)*

Sofia: for example, even with the invigilators...even if we used the wrong words [and didn't know exactly what to say], we spoke in English (...) they helped us too, to understand where the rooms were

Fostering of affective factors

When analysing students' open-ended responses and focus group discussions, several affective dimensions emerged as important in shaping students' attitudes towards the use of the FL outside of the school context.

Students in both groups claimed that using English at the museum was a way for them to test their English knowledge and skills outside of the school context:

Open ended response: *S261 (Group 2, Science student) and S124 (Group 1, Marco Polo Art student)*

S261: I used English outside of the school context and I had the chance to test my knowledges

S124: I tested my abilities in English in an environment that is different from school

The Marco Polo Art students interpreted this “test” as a positive challenge, and related this feeling to them being in a different context than school:

Extract 169: *Focus group with Marco Polo Art students (FG 3)*

Gloria: even this experience...I mean...I don't like English [group laughter]...but I liked it at the museum...because it was different from being at school...and listen...

Enrico: it was a bit like a challenge, to speak in English at the museum

However, in the entries below, the Researcher-practitioner recorded that all students, regardless of the type and grade of school attended, seemed to show anxiety at the beginning of the visit:

Extract 170: *Entry 13 in Researcher-practitioner's (RP) journal*

RP: At the beginning when they hear me speaking in English, they look at each other and smile, maybe thinking “oh gosh, now we have to speak in English”.

It's not anxiety...how can I describe it? They're excited, they look at each other, giggle, maybe because they know they'll have to put themselves out there and they're undecided between the willingness to do it or not. It happened to me also with the lower secondary school students. They tend to hide behind their peers or they move out of my sight.

Extract 171: *Entry 1 in Researcher-practitioner's (RP) journal*

RP: The first half an hour is always tough, in the sense that students are initially shocked by the fact that they will be asked to answer to questions in English.

When trying to understand why this was, two possible causes seemed to emerge from the close reading of the data: the unfamiliarity with the museum educator, and students' self-perceived language competence. As regards the former, the Marco Polo teachers claimed that part of students' anxiety was due to the fact that they felt uneasy about the idea of interacting in English with a stranger:

Extract 172: *Fruitful discussion with Marco Polo teachers*

Paola T: Yes, I don't quite remember now, but their fear was not to be able to understand...I don't know if they told you as well, Elena [addressing Elena]

Elena T: They were a bit afraid but then they were able to overcome this [fear]

Paola T: also because maybe they didn't know you [addressing the RP]

Elena T: well, our groups knew her

Paola T: because they thought "mmm who knows what the museum educator will be like?" and then they met you and they relaxed

Even though Museum Educator 2's perception was not considered for this research question, she made a claim, which supports the findings presented above and it is thus worth reporting:

Extract 173: *Interview with Museum Educator 2 (ME2)*

ME2: I think the time is ok, but if you don't feel comfortable you can't make it...in fact, I observed that they were quicker towards the end than at the beginning because they need to get familiar with the space as well and with the person they have in front of them [the museum educator]...

As regards the self-perceived language competence, many of the Marco Polo Art students described their English language competence in very negative and, sometimes, disparaging terms:

Extract 174: *Focus group with Marco Polo Art students (FG 2)*

Claudio: (...) it was 'useful' because you talked in English and I'm totally hopeless in English-

Extract 175: *Focus group with Marco Polo Art students (FG 2)*

Francesca: (...) as I said before, my English is below zero, and listening to the others could give me...more of an incentive to learn and understand it [the English language]
(...)

Extract 176: *Focus group with Marco Polo Art students (FG 1)*

Kristina: 'proud' because-e-e...I was able to understand the words that they were saying in English...because I'm not like...I don't understand English

Isabella: "I'm not an English genius" [group laughter]

Moderator: so it was a bit of a surprise? (...)

Kristina: [yeah?]

Isabella: I put 'proud' too, because we were able to talk and understand and to do it in English [group laughter]

Similar negative comments to the ones presented above were recurrent throughout the Marco Polo Art students' focus group discussions and, in some cases, they were linked to students' negative attitudes towards the English language:

Extract 177: *Focus group with Marco Polo Art students (FG 4)*

Rebecca: I put 'different' and 'stimulating'. Different, because it was something that we had never done before, and stimulating because for example I don't like English because I suck...but you tried anyway to push yourself at speaking in English

The Marco Polo Art students' (Group 1) negative self-perceived language competence could be one of the reasons why they revealed less positive attitudes towards using English in an out-of-school context (Factor 2) than the Language, Science and Professional students (Group 2). From this perspective, some of the Marco Polo Art students also seemed to perceive themselves as less able students because of the school (*liceo artistico*) they were attending:

Extract 178 : *Focus group with Marco Polo Art students (FG 5)*

Rosa: because I would like to learn English, but studying at *liceo artistico* I don't know if there will be the same chance for me to learn English as there is for people studying at *liceo scientifico*

However, the Marco Polo Art students also affirmed that using English in the museum context had a positive impact on their confidence and self-esteem as learners/users of English:

Open ended response: *S101 (Group 1, Marco Polo Art student)*

S101: Thanks to this experience I was able to become more confident with the language

Extract 179: *Focus group with Marco Polo Art students (FG 5)*

Cinzia: I wrote 'surprised' because I was very surprised of how I was able to make myself understood, bringing out an English [knowledge] I didn't know I had (...)

- Gemma:** I also put ‘proud’ because (...) it was like we were able to bring out the English that-
- Cinzia:** (overlapping) that was inside us...and then it’s like you say “Gosh, I can’t believe I’m this good” [group laughter]
- Gemma:** and this makes you a little proud...you tell yourself “I’ll learn English this way”

In the extract above, the students show an overall sense of achievement and satisfaction for being able to accomplish the CLIL museum activities, despite their low English language competence. In fact, when asked about how they felt during the CLIL museum visit, many of the Marco Polo Art students said they were “proud” of themselves, and even a bit surprised of their performance. In the extract below, Julie claimed that she was particularly worried about speaking in the correct way.

Extract 180: *Focus group with Marco Polo Art students (FG 5)*

- Julie:** let’s say that, initially, I was more anxious...because I knew that the activity was in English, that I had to speak in English and I was very worried about saying the phrase in the correct way...but little by little I relaxed and I didn’t have to think about it that much anymore (...) and I said something anyway

However, she also described how her initial feeling of anxiety was fast replaced by a growing feeling of relaxation as the museum visit progressed. Another Marco Polo student, Noemi, claimed that, due to her not being very good at English, she felt like she would not be able to interact very much during the visit. However, after participating in the visit, she too expressed an increased level of confidence in her abilities as a user of English:

Extract 181: *Focus group with Marco Polo Art students (FG 2)*

- Moderator:** ok...mmm...if you think...how you felt during the visit...the last question...I put some words...

(...)

Noemi: (overlapping) ‘anxious’ because...I don’t have a good relationship with English, so I was like “what do I do?! And If I make a mistake?”, so I just shut up...

Moderator: and do you feel more relaxed now in comparison to before?

Noemi: YES

Moderator: so if they asked you to-

Noemi: (overlapping) I could do it easily, that is, if I work on it then I can...

In fact, in another focus group session, Alessandro, for example, claimed that the positive learning atmosphere in the museum helped him in feeling good about himself:

Extract 182: *Focus group with Marco Polo Art students (FG 7)*

Alessandro: yeah, exactly, it was engaging...and then, I felt good about myself, and I think also the others, maybe [looking at the other participants]..anyway, I felt good about myself and comfortable, I mean...relaxed

Museum Educator 2, when describing the affective responses to the CLIL museum visit of students participating in the third year of the research project:

Extract 183: *Interview with Museum Educator 2 (ME2)*

ME2: (...) but students are always very happy and satisfied, because they feel like they have built something, they like it...because first of all they complete the worksheets [sort of a small book], which is something that they can keep, they’ve learnt new things for sure, things that can also be nice and helpful (...)

Attitudes towards topic in CLIL

As regards this category, two themes emerged as important when explaining the significant difference between the Marco Polo Art students' (Group 1) attitudes towards Factor 2 and those of the Language, Science, and Professional students (Group 2): *professional career* and *personal interests*. Indeed, while acknowledging that both the CLIL museum visit and the module had been enjoyable and “fun” experiences, the Marco Polo Art students argued that learning English in relation to science was not very useful for them :

Open ended response: *S28 (Group 1, Marco Polo Art student)*

S28: I learnt new things but I'm not sure they'll be useful for me in my daily life

Indeed, they expressed a very strong preference towards focusing the CLIL museum learning visit and the module on art rather than science. They particularly explained that art was not only their passion, but also their potential career:

Extract 184: *Focus group with Marco Polo Art students (FG 5)*

Rosa: yeah...it would be so much better to do it in art

Moderator: would it better if [the module] was in art?

Julie: maybe it would engage us more (...)

Amanda: art is our passion, if we're here...and [to do it] in English nowadays-

Rosa: (overlapping) it's important

Amanda: it's very important

Cinzia: I mean also for a job in the future

Rosa: exactly

Gemma: exactly, in case we became museum guides

What emerges from our data is that students established a strong relationship between the usefulness of the CLIL experience and their future career:

Extract 185: *Focus group with Marco Polo Art students (FG 4)*

- Moderator:** ok [laughing]...why is it useful? Why do you think that participating in these experiences is useful?
- Anna:** because especially in this-
- Rebecca:** (overlapping) moment
- Anna:** moment...English is something that is required in any job [you apply for]
- PP:** you need it [English]
- Sandro:** it's essential [English]
- Moderator:** do you agree?
- PP:** yes
- Rebecca:** unfortunately [laughing]
- Moderator:** do you think you will use it [English] in the future?
- PP:** yes yes...for sure

Within this context, the Marco Polo Art students underlined that being competent English users is nowadays a necessity. However, they also argued that if they were to become museum/tour guides in the future, a career chosen by many art students in Venice, they would need to know and use art rather than science specific vocabulary and contents in English:

Extract 186: *Focus group with Marco Polo Art students (FG 5)*

- Cinzia:** if you decide to become a tourist guide you need to know about art but you also need to know English
- Amanda:** and you need to know how to talk about the art [concepts] in English

9.4. Data analysis in relation to Research Question 4

Our Research Question 4 was “What impact does participation in the CLIL museum visit have on students’ perceived learning outcomes?”. To answer this question, we investigated students, teachers, and the Researcher-practitioner’s perspectives. From the perspective of the students, we first analysed their responses to Question 2, 3, 4, and 5 in Part 2 of the questionnaire aimed at collecting students’ perceptions as regards what they learnt and what supported them best during the CLIL museum visit (see Appendix C). Then, we proceeded with the analysis of teachers’ closed responses to Questions 6 (a, b, and c), 7 (a, b, c, d, and e), and 8 (a, b, c, and d) in Part 2 of the questionnaires aimed at collecting their perceptions of students’ learning outcomes (see Appendix D). Only the teachers of the Language, Science, and Professional students in Group 2 responded to the questionnaire. Thus, we integrated both students and teachers’ quantitative responses with students’ qualitative open-ended responses and focus group discussions, the Marco Polo teachers’ fruitful discussion, and the Researcher-practitioner’s journal. Through combining different types of data, our aim was that of getting a deeper and richer understanding of the aspects, which contributed to students’ perceived learning outcomes. However, through integrating different perspectives, we also aimed at investigating whether students’ perceptions were in line with those of their teachers and museum educator.

Thus, in Paragraph 9.4.1. we will present the analysis of both students and teachers’ closed quantitative responses, while in Paragraph 9.4.2., we will present the analysis of students’ qualitative responses and focus group discussions, supported by the analysis of both Marco Polo teachers’ fruitful discussion and the Researcher-practitioner’s journal.

9.4.1. Quantitative data analysis: students and teachers’ questionnaires

In this paragraph we will first present the analysis of Part 2 in students’ questionnaires. Part 2 consisted of three multiple choice items (Questions 2, 3, and 4) and two true-false items (Questions 5a and 5b; see Figure 30).

Figure 30: Questions 2, 3, 4, 5a and 5b in Part 2 of students' questionnaires

PART 2
This section regards what you perceived to be the learning outcomes of the CLIL museum visit

2. Thanks to the museum visit, I learnt: *(you can underline one or more of the following options)*

a. new contents (art or science)
 b. new words in English (write down two: _____, _____)
 c. other _____

3. During the museum visit, the skills I practised the most were: *(you can underline one or more of the following options)*

a. listening in English
 b. reading in English
 c. writing in English
 d. speaking in English
 e. interacting with my classmates in English

4. What do you think helped you the most in understanding the contents through English during the museum visit? *(you can underline one or more of the following options)*

a. the materials
 b. interacting with my colleagues
 c. group activities
 d. frontal explanations

5. Indicate if you agree or disagree with the following statements, by putting an 'x' on T (true) or F (false).

a	I understood the majority of the things that we did	T	F
b	I learnt interesting things	T	F

In analysing students' responses to Question 2 (*Thank to the museum visit, I learnt...*), we found that 313 out of 322 students selected one or more of the options (a, b, c) available (9 students did not select any and were considered missing values).

The majority of the students (68%; n=219) said that they perceived to have learnt “new words in English” (option b) as a result of the CLIL museum visit, while 55% (n=177) selected “new contents (art or science)” (option a), and only 3.7% (n=12) selected “other” (option c). When selecting “new words in English” (option b), students mainly listed subject specific words (i.e. *scales, limbs, hoofs, fur, frescoes, paintings, portraits*), while those students that selected “other” (option c) mainly referred to the specific subject (i.e. how to construct a cladogram) and other skills (i.e. to work in group; see Table 30).

Table 30: *Examples of students’ open responses to “other” (option c) of Question 2*

Student ID	Other
<i>S162 (Art student, Group 1)</i>	“to interact more with my classmates”
<i>S198 (Art student, Group 1)</i>	“to learn how to speak about science in English”
<i>S233 (Science student, Group 2)</i>	“new ways to express ideas and specific contents related to art in English”
<i>S255 (Language student, Group 2)</i>	“to listen and understand someone that speaks in English”
<i>S261 (Science student, Group 2)</i>	“things like creating a cladogram”

In analysing students’ responses to Question 3 (*During the museum visit, the skills I practised the most were ...*), we found that 318 out of 322 students selected one or more of the options available (four missing values). The majority of the students (73.6%; n=237) wrote down that they perceived to have practised “listening in English” (option a) as a result of the CLIL museum visit, while 41.3% (n=133) of the students selected “reading in English” (option b), 40.4% (n=130) selected “speaking in English” (option d), 32.9% (n=106) selected “interacting with my peers in English” (option e), and only 29.2% (n=94) selected “writing in English” (option c) (see Table 31).

Table 31: *Number and percentages of students' responses to each option (a, b, c, d, e) of*

Question 3	Listening (a)	Reading (b)	Writing (c)	Speaking (d)	Interacting (e)
Number of students	237	133	9	130	94
%	73.6	41.3	29.2	40.4	32.9

In analysing students' responses to Question 4 (*What do you think helped you the most in understanding the contents through English during the museum visit?*), 313 out of 322 participants selected one or more of the four options available (16 were missing values).

The majority of the students (46.5%; n=153) said that what helped them the most during the CLIL museum visit was the "materials", while 43.2% (n=142) selected "group activities", 34.7% (n=114) chose the "interacting with my peers in English" option, and 38.6% (n=127) opted for "frontal explanations".

As for Question 5 (*I understood the majority of the things that we did*), the majority of the students (n=294, %=91.3) responded positively (answer: "true") to this item, whereas 8.1% of the participants (n=26) did not agree (answer: "false") (2 missing values). As regards the second item "*I learnt interesting things*", the majority of the students (n=299, %=92.9) responded positively to the statement, while only 5.3% (n=17) responded negatively (6 missing values).

As for teachers' quantitative responses in the questionnaires, we will here present the analysis of their responses to Questions 6 (a, b, and c), 7 (a, b, c, d, and e), and 8 (a, b, c, and d; see Figures 31, 32, and 33).

Figure 31: *Question 6 (a, b, and c) in Part 2 of teachers' questionnaires*

6. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you believe the museum visit has had a positive impact on your students' learning:

		1	2	3	4
a	knowledge and skills associated with art/history or science				
b	general vocabulary in English				
c	subject specific vocabulary in English				

Figure 32: *Question 7 (a, b, c, d, and e) in Part 2 of teachers' questionnaires*

7. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you think your students practised the following language skills:

		1	2	3	4
a	listening in English				
b	reading in English				
c	writing in English				
d	speaking in English				
f	interacting with classmates in English				

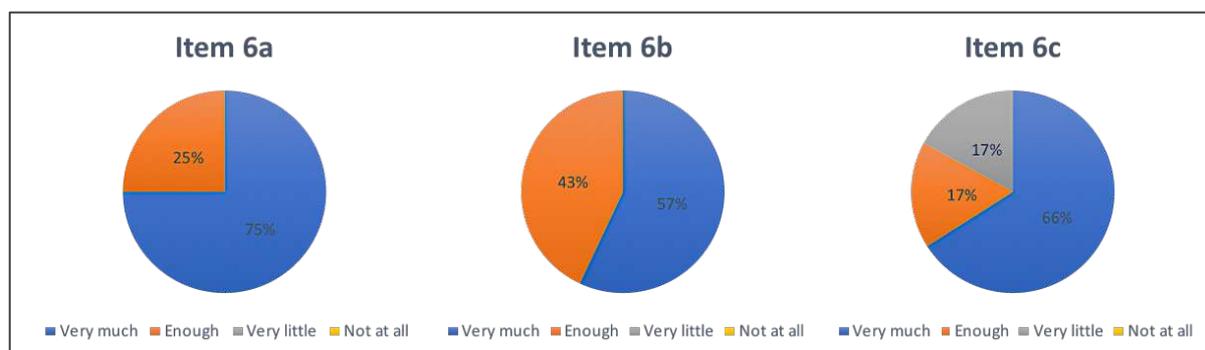
Figure 33: Question 8 (a, b, c, and d) in Part 2 of teachers' questionnaires

8. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you agree with the following statements:

		1	2	3	4
a	The museum visit was appropriate in terms of my students' prior knowledge				
b	The museum visit was appropriate in terms of my students' language level				
c	The museum visit was appropriate in terms of my students' age				
d	The museum visit encouraged the integrated learning of content and language				

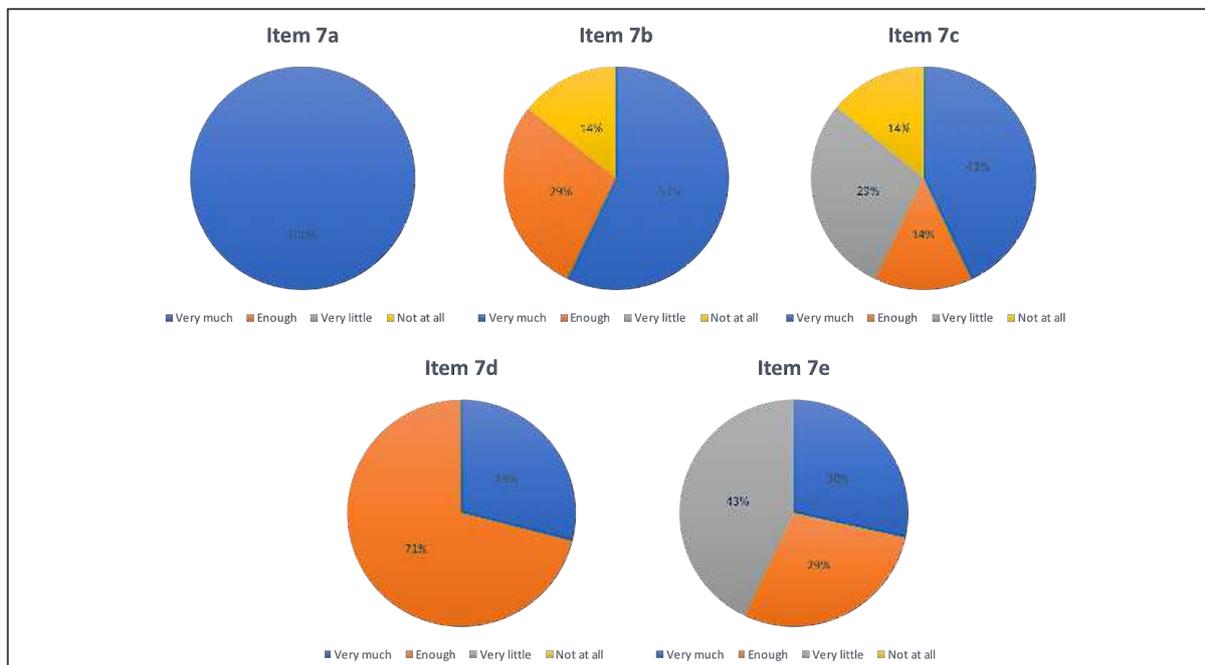
In analysing teachers' responses to Question 6 (*In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you believe the museum visit has had a positive impact on your students' learning*), all 8 teachers responded that the visit had had a positive impact on students' knowledge and skills associated with art/history or science (Item 6a) with 75% (n=6) selecting *Very much*, and 25% (n=2) selecting *Enough*. As regards Item 6b, 7 teachers responded that the visit had had a positive impact on students' general vocabulary in English, with 57% (n=4) of the teachers selecting *Very much*, and 43% (n=3) selecting *Enough*. As regards Item 6c, 6 teachers responded that the visit had had a positive impact on students' subject specific vocabulary in English, with 66% (n=4) of the teachers selecting *Very much*, 17% (n=1) selecting *Enough*, and 17% (n=1) selecting *Very little*.

Figure 34: Teachers responses to Item 6a (knowledge and skills associated with art/history or science; n=8), 6b (general vocabulary in English; n=7), and 6c (subject specific vocabulary in English; n=7)



In analysing teachers' responses to Question 7 (*In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you think your students practised the following language skills*), 7 teachers responded that the students were able to practice their listening skills (Item 7a) with 100% (n=7) of the teachers selecting *Very much*. As regards Item 7b, 7 teachers responded that the students were able to practice their reading skills with 57% (n=4) of the teachers selecting *Very much*, 28.5% (n=2) selecting *Enough*, and 14.28% (n=1) selecting *Not at all*. As regards Item 7c, 7 teachers responded that the students were able to practice their writing skills with 43% (n=3) selecting *Very much*, 14% (n=1) selecting *Enough*, 29% selecting *Very little*, and 14% (n=1) selecting *Not at all*. As regards Item 7d, 7 teachers responded that the students were able to practice their speaking skills with 71% (n=5) of the teachers selecting *Enough*, and 29% (n=2) selecting *Very much*. Finally, as regards Item 7e, 7 teachers responded that the students were able to practice their interacting with colleagues skills with 28.5% (n=2) of them selecting *Very much*, 28.5% (n=2) selecting *Enough*, and 43% (n=3) selecting *Very little*.

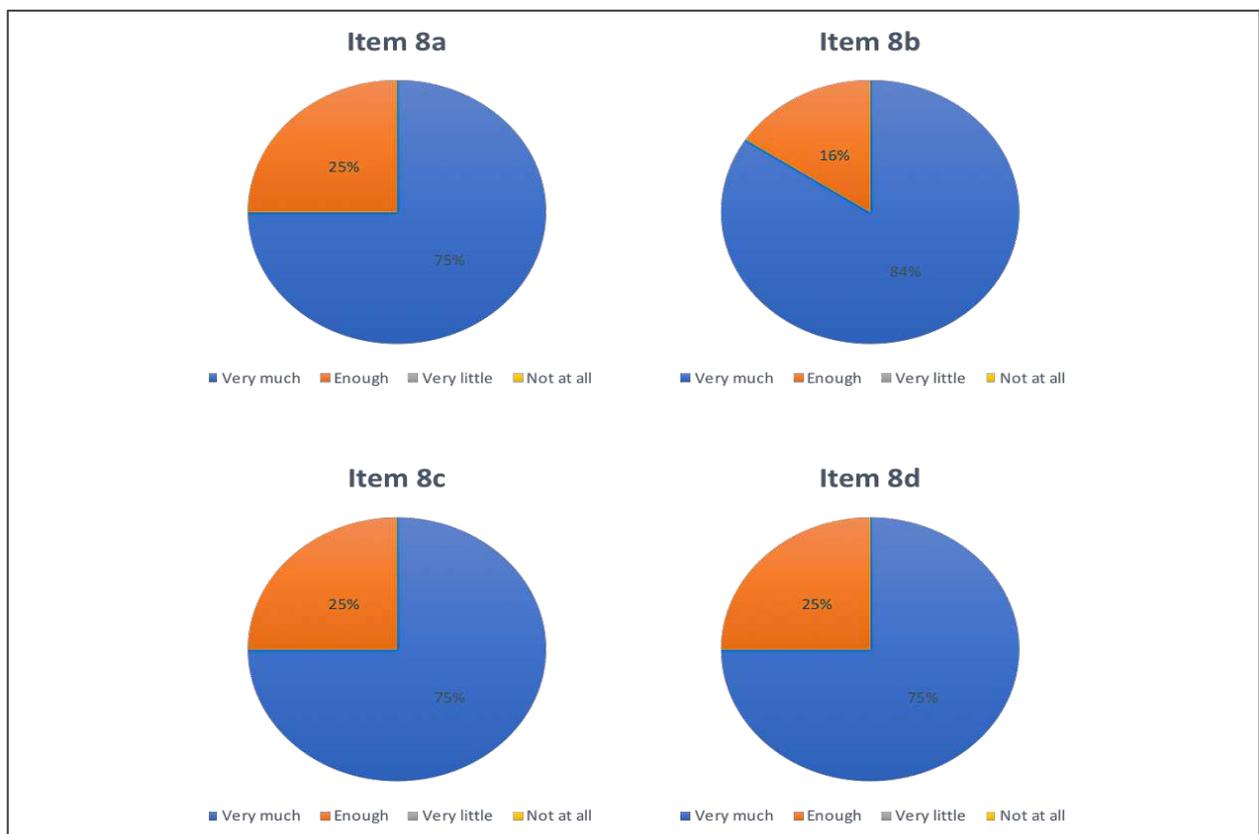
Figure 35: Teachers responses to Item 7a (practice of listening skills; n=7), 7b (practice of reading skills; n=7), 7c (practice of writing skills; n=7), 7d (practice of speaking skills; n=7), and 7e (practice of interacting with classmates skills; n=7)



In analysing teachers' responses to Question 8 (*In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you agree with the following statements*), 8 teachers responded that the museum visit was appropriate in terms of their students' prior knowledge

(Item 8a) with 75% (n=6) of them selecting *Very much*, and 25% (n=2) selecting *Enough*. As regards Item 8b, 7 teachers responded that the museum visit was appropriate in terms of their students' language level with 86% (n=6) selecting *Very much*, and 14% (n=1) selecting *Enough*. As regards Item 8c, 8 teachers responded that the museum visit was appropriate in terms of their students' age with 75% (n=6) of them selecting *Very much*, and 25% (n=2) selecting *Enough*. Finally, as regards Item 8d, 8 teachers responded that the museum visit encouraged students' integrated learning of content and language with 75% (n=6) of them selecting *Very much*, and 25% (n=2) selecting *Enough*.

Figure 36: Teachers responses to Item 8a (visit appropriate to students' prior knowledge; n=8), 8b (visit appropriate to students' language level; n=7), 8c (visit appropriate to students' age; n=8), and 8d (visit encouraged students' integrated learning; n=8)



9.4.2. Qualitative data analysis

The analysis of the qualitative data as regards students' perceived learning outcomes led to four main categories: Language gains and Communication, Dual gains, Knowledge and understanding, and Support.

9.4.2.1. Skills and Vocabulary

As regards this category, in the questionnaires, students highlighted that they had found the CLIL museum visit useful because it had given them the chance to improve their overall English language competence:

Open ended response: *S321 (Group 2, Science students), and S151 (Group 2, Professional student), and S51 (Group 1, Marco Polo Art student)*

S321: It helped me with the language

S151: We learnt English

Students going to both the science and art museums also reported to have practised their language skills, particularly mentioning how they were able to improve their speaking and interaction with peers:

Open ended response: *S229 (Group 2, Science student), and S319 (Group 2, Science student), and S280 (Group 2, Language student)*

S229: It allowed me to interact with my colleagues

S319: I interacted with my colleagues in English

S280: I learned new words and to express myself better

Only one student claimed to have improved his/her listening skills in English (**S263:** I interacted and listened in English; Group 2, Science student), even though the analysis of both students and teachers' quantitative responses showed that the majority of both students and teachers selected this as the main skill practiced during the visit. Moreover, in one of her entries, the Researcher-practitioner noticed how students did not always speak in English, when interacting with their peers in the museum galleries at the *Natural History Museum* of Venice:

Extract 187: *Entry 9 in Researcher-practitioner's (RP) journal*

RP: When they work in groups in the museum halls, students almost exclusively interact in Italian. They need to translate every single word. This is something that I also noticed during the other visits.

In line with both students and teachers' quantitative data, the majority of the students across the two groups and types of schools reported that the usefulness of the visit specifically related to the increase of their vocabulary in English:

Open ended response: *S251 and S283 (Group 2, Language students), S266 (Group 2, Science student), and S51 (Group 1, Marco Polo Art student)*

S251: I learnt new words in English, expanding my vocabulary

S283: I learnt new words in English

S266: I learnt new words in English

S51: I learnt some new words

In the focus groups, the Marco Polo Art students felt that the words they learnt during the CLIL museum experience were meaningful because they differed from both the ones they would normally learn during the ESL classes at school and the ones they would come across during their chosen English language activities beyond the classroom:

Extract 188: *Focus group with Marco Polo Art students (FG 6)*

Giulia: hem...new words and related to a different field because the words that we learn at school are different...

Rebecca: exactly!

Sandro: yes, usually "cake, salad" [laughing]...new words, new things...

Giulia: mmm [yes, I agree]

Rebecca: definitely new words in comparison with the ones that I learn by reading the lyrics of the metal songs [group laughter] (...)

In confirming the results of the quantitative analysis, students made frequent references to the extension of subject-specific lexis:

Open ended response: *S247 and S252 (Group 2, Language students) and S198 (Group 1, Marco Polo Art student)*

S247: I learnt scientific words in a foreign language

S252: I learn a few scientific words in English

S198 It teaches you the scientific terminology in English

However, while some of the Marco Polo Art students acknowledged that learning new science-specific words was interesting, some of them indicated that they would not be that useful to them, especially because of the specific type of school they attended:

Open ended response: *S26 and S (Group 1, Marco Polo Art student)*

S26: I won't always use these words

Extract 189: *Focus group with Marco Polo Art students (FG 3)*

Jessica: yes, even though I don't know to what extent they will be useful to me...that's the point...because I learnt English on these scientific words...but I don't know to what extent they'll be useful to me

Gloria: yeah, maybe if you choose a specific school in which-

Jessica: (overlapping) yeah, exactly

Moreover, some of the Marco Polo Art students also pointed out that they found the scientific terminology difficult to both understand and memorise:

Extract 190: *Focus group with Marco Polo students (FG 3)*

Luca: the negative [aspect] is that the science words are complicated in English

Moderator: is it difficult to remember them?

Luca: yes like [unclear]

Extract 191: *Focus group with Marco Polo students (FG 5)*

Julie: but with some body parts it was more difficult

Gemma: yeah you could guess [the meaning] of some of them

Cinzia: [unclear because of background noises] you guess their meaning...but others mmmm

However, while they perceived the scientific terminology as difficult, they still felt that through engaging with the museum objects, they could memorise and recall new words better because of their association with visual stimuli:

Extract 192: *Focus group with Marco Polo students (FG 6)*

Moderator: do you remember it better when you see it in reality?

Sara1: yes, much better

PP: yes! ?

?: of course!

Laura: also because you had to act...while there [at school] it was more about speaking and copying from your partner

Sara1: yes, I see a word in English and I think about...what I had seen there-e...at the museum-

Sara: yes, I see a word in English and I think about...what I saw there at the museum-

Interestingly, engaging with real objects also emerged as beneficial for the understanding of new contents, especially when dealt with through a FL (see the category *Knowledge and understanding*; Paragraph 9.4.2.2.).

The Marco Polo Art students also felt that by learning science through English they were able to reflect more on the language, increasing their language awareness:

Extract 193: *Focus group with Marco Polo students (FG 2)*

Chris: I [chose] ‘stimulating’ because, more than everything else, it made me use and reflect on the English language-

9.4.2.2. Knowledge and understanding across contexts and subjects

As regards this category, students in both the open ended responses and focus group discussions affirmed that through participating in the CLIL museum visit, they were able to learn two subjects at the same time:

Open ended response: *S63 (Group 1, Marco Polo Art student), S254 (Language student) and S308 (Science student) in Group 2*

S63: it was interesting to learn new things both as regards the English language and animal classification

S254: because I learnt new words in English, and I also expanded my science knowledge

S308: I learned new things, like English words and curiosities about animals

Extract 194: *Focus group with Marco Polo students (FG 2)*

Noemi: yes, because this was a topic...taxonomy, that I had never dealt with before and to study it in English has been [like having] two for one

What emerged from the analysis of the focus group discussions was that through learning about science in English, the Marco Polo students also developed awareness as regards knowledge transfer across subjects:

Extract 195: *Focus group with Marco Polo students (FG 3)*

Enrico: the positive [aspect is that] you can connect subjects that are taught in different languages. For example, science is usually taught in Italian, and English in English and when they are integrated [cross talk], maybe you're able to better connect a subject taught in Italian in other languages as well...if you go abroad

In the open ended questionnaires students claimed that the CLIL museum visit had been useful because it had given them the chance to learn new and interesting things:

Open ended response: *S25 and S118 (Group 1, Marco Polo Art student), S246 (Group 2, Language student)*

S25: because I learnt things that I could not know otherwise

S118: we learnt new things

S246: because I learnt new things

When visiting the *Natural History Museum* of Venice, students in both groups also mentioned that the visit had given them the opportunity to learn more about animals and how to classify them:

Open ended response: *S66, S69, and 200 (Group 1, Marco Polo Art students), S265 (Group 2, Science student) and 281 (Group 2, Language students)*

S66: Because now I know so many more things about animals

S69 I could observe different types of animals and get to know them

S200 I believe it was very useful because I learnt new things about the animal structures that I didn't know before, and much more

S281: I learned about different types of animals

S265: I learnt to recognise the bone structures

Students in the open ended responses also said that at the museum they were able to dust their memories, and to use their prior knowledge in different ways:

Open ended response: *S167 and 182 (Group 1, Marco Polo Art students)*

S167: I learnt new things and, above all, I expanded some which I already knew

S182: because I've been here 5 times and I was able to "dust off" my memories

However, when expanding on why they thought that learning at the museum was different than learning at school, in the focus groups, the Marco Polo Art students also claimed that learning at the museum allowed them to come to a deeper understanding of the subject:

Extract 196: *Focus group with Marco Polo students (FG 6)*

Valentina: when you go to the museum you see it [the topic] in a different way

Samuel: yes yes

Sara1: yeah, that's true...you think about it more, you reason

Samuel: [cross talk] it's true because, as someone said...to see things digitally and to see them for real has a totally different impact (...)

In fact, students often claimed that there is a huge difference between looking at an image on a text book and observing the real object:

Extract 197: *Focus group with Marco Polo students (FG 2)*

Chris: above all, for example...I'm the only one to love museums, especially natural history, animals, things like that, so-but to see images in the book is very boring! and it doesn't really enchant you...instead, to see them for real, it encourages you more...to reason on why it has that shape etc etc

Claudio: then, for example...also the dimensions of the animals...on the book you have a picture that is [miming small dimensions]-

Luna: (overlapping) like your finger! [group laughter]

Claudio: then, you find yourself in front of the elephant and you say [miming astonishment]

Extract 198: *Focus group with Marco Polo students (FG 2)*

Giovanna: the things [you learn] at the museum, you remember them better, because, for example, let's say we need to study a whale...to study it at school [is one thing?], but to see it at the museum with its dimensions, its bones, you simply remember it much better...

In the Marco Polo teachers' fruitful discussion, Elena T confirmed students' perceptions by claiming that taking students to the museum helps them make authentic connections between what they learn at school and the reality beyond it:

Extract: *Fruitful discussion with Marco Polo teachers*

Elena T: also because they understand that you're not talking about fiction [in the classroom], they start to understand...also because some of them have never been to the museum...

From this perspective, the Marco Polo Art students also acknowledged the fundamental role of the pre-visit activities on their ability to transfer knowledge between the school and the museum context:

Extract 199: *Focus group with Marco Polo students (FG 1)*

Agnese: “We lived an experience in two different contexts, using the knowledges we acquired at school in a context other than school” [Agnese is reading out from her sheet]

Extract 200: *Focus group with Marco Polo students (FG 7)*

Margherita: The positive aspect was that] we learnt something at school, we thought “we won't be using this for anything else”...while when we went to the museum we rediscovered [those things] and so-o it was much more interesting because like “oh yes we did this already”...

Moreover, the Marco Polo Art students often claimed that engaging with the museum objects allowed them to understand concepts more firmly and to also remember them better:

Extract 201: *Focus group with Marco Polo students (FG 5)*

Cinzia: at the museum you feel much more engaged also because...if you're talking about a specific animal, we can see it and we can understand better what you mean...

Amanda: yeah you just say “what's this stuff” [laughing]

Cinzia: yeah, it's more difficult...I mean if you're talking about a specific animal, we look at it and you describe it to us...I think it's much better this way

Amanda: you memorise things better

Cinzia and Gemma: exactly!

Gemma:

Indeed, what emerges from the focus groups is that interacting with real objects engaged students' senses allowing for holistic learning to occur:

Extract 202: *Focus group with Marco Polo students (FG 3)*

Paolo2: I mean that what you read, you can only imagine...but you don't know it...instead, when you-u-u [both] read and see it you understand much more

9.4.2.3. Support

As far as this category is concerned, the analysis of the qualitative data confirmed the quantitative results. In fact, the Marco Polo students mentioned that, among the support tools provided during the visit, the worksheets had been the most useful:

Extract 203: *Focus group with Marco Polo students (FG 5)*

Julie: (...) it was nice to have something in our hands. I mean, if you hadn't given us the worksheets at school and at the museum, it would have been much more difficult to understand (...)

Students also mentioned the glossary as important in supporting their understanding of the contents during the visit:

Extract 204: *Focus group with Marco Polo students (FG 5)*

Gemma: the little book where you could find all the words and the images

Cinzia: yes

Moderator: so the glossary with the images?

PP: yes

The Marco Polo students also referred to working in groups as extremely helpful, as they recognised having different levels and abilities in English:

Extract 205: *Focus group with Marco Polo students (FG 7)*

Tommaso: it was easier to work as a group

PP: yes

Giuseppe: yes, because if someone didn't understand and needed help there was someone else to fill in (...)

Extract 206: *Focus group with Marco Polo students (FG 7)*

Sofia: so I put 'proud' because I felt useful and engaged also to support my group colleagues...like if we didn't know something, we helped each other (...)

Extract 207: *Focus group with Marco Polo students (FG 3)*

Eleonora: (...) and also we kind of helped each other...if one didn't know a word, maybe there was someone else who knew it...we also helped each other...we had fun

They concurred that the pre-visit activities (module) had supported them in understanding and engaging with both the contents and the language during the visit (this theme overlaps with Research Question 2; see Paragraph 9.2.2.5. on Marco Polo Art students' perceptions as regards the pre-visit activities).

Extract 208: *Focus group with Marco Polo students (FG 2)*

Francesca: but I think, if we hadn't said anything at school, we would have probably arrived at the museum knowing nothing...and-I mean, either you stayed much more time in the museum, so you could explain things at the museum, or it would have been impossible [to understand], so I think the lesson before were very useful

Extract 209: *Focus group with Marco Polo students (FG 4)*

Paolo: and also, we already knew something-

PP: (overlapping) exactly!

Rebecca: we were already prepared

Paolo: it was easier for us to understand during that activity-

The Marco Polo Art Students also claimed that the pre-visit activities had helped in contextualising their learning during the visit and setting the right expectations:

Extract 210: *Focus group with Marco Polo students (FG 7)*

Giuseppe: [when you talk] about the same topic at school, you get to the museum and you already know how to behave, I mean...you already know something

Moderator: ok

Rosa: yes, you're not totally lost

(...)

Margherita: I think [it should be both at school and at the museum] because school prepares you for the museum

Extract 211: *Focus group with Marco Polo students (FG 5)*

?: but it was really positive to have the part in class first and then go to the museum, because he explained to us what the museum activity would be about and he gave us some basis that helped us during the museum activity

Moderator: (...) so you knew what to expect in a way?

PP: yes

Moreover, the preparation before the visit had resulted in an interest boost, and had also encouraged them to be more attentive and to ask questions.

Extract 212: *Focus group with Marco Polo students (FG 4)*

Rebecca: (overlapping) in my opinion it was better that we were prepared, because, as with the Vajont experience, for which we had already been prepared, the guide was explaining you were also interested in asking her questions- while if go there without knowing anything, you don't even make an effort...

When reflecting on the school-museum integrated module, the Marco Polo teachers also indicated the pre-visit activities as pivotal in supporting their students' active engagement during the CLIL museum visit:

Extract 213: *Fruitful discussion with Marco Polo teachers*

RP: So, what do you think were the difficulties in designing and delivering the integrated module? Think about what we did in the classroom but also about what we did in the museum. I mean the difficulty to create a module like this one...

Elena T: I think one of its strengths was to give them something to do in preparation for the museum visit

Paola T: Yes, I feel the same

In particular, the Marco Polo teachers indicated that the pre-visit activities aimed at giving students the necessary vocabulary, but also at activating their knowledge:

Extract 214: *Fruitful discussion with Marco Polo teachers*

RP: because they told me “the pre-visit lessons were useful because we already knew some of the vocabulary”

Elena T: yes, exactly...we mostly focused on vocabulary

RP: yes, but we also introduced the concept of “classification”, of dividing in groups...there was also this idea, wasn’t there?

Paola T: yes, that as well

Elena T: yes yes

The importance of the pre-visit activities was also emphasised by the teaching assistant, Stefano T. In fact, in answering to the question on whether students could participate in the CLIL museum visit without being prepared, he said that:

Extract 215: *Fruitful discussion with Marco Polo teachers*

Stefano: yes, but maybe I would devise at least a couple of lessons to make them familiar with the vocabulary before taking them to the museum

However, some students also commented negatively on the pre-visit activities indicating that they did not come understand all of them, and this made it harder for them to actively participate in the visit:

Extract 216: *Focus group with Marco Polo students (FG 5)*

Cinzia: yes, but I think I missed a few things because I didn't understand everything and so at the museum I didn't know as much as those who had understood well, but I mean there was a basis anyway so I understood what we were doing

10. Discussion

In this final chapter, we will critically examine our results in the light of the theoretical framework we outlined in Part 1 of our thesis, and make judgements as to what we have learnt in our work (see Evans, Gruba, and Zobel 2014). In particular, in Paragraphs 10.1.-10.4 we will discuss the findings in relation to the four research questions, while in Paragraph 10.5. we will present the pedagogical framework, which can be considered as our first attempt/proposal to successfully bridge the gap between CLIL at school and at the museum.

10.1. Integrating CLIL and museum-based pedagogy

In Chapter 3, we outlined what a museum is, how it came to fulfil a social and educational mission, and the political and legislative framework within which it operates today in Italy. The general idea that we wanted to convey was that museums are far more than repositories of objects, as they represent places aimed at the enhancement of research and innovation, while also fulfilling an important educational function (see the ICOM definition in Paragraph 2.1.). In fact, museums are nowadays actively involved in addressing the specific characteristics and needs of society, and, to do so, they employ diverse tools in line with their³² overall organisation, vision, and mission (see the Code of Ethics; Paragraph 3.3.). In the last few years, CLIL has become one of these tools. More and more museums in Italy have developed CLIL museum programmes starting from local and bottom-up partnerships, but there is currently little knowledge of what “shape” should CLIL take in the museum, and the aspects to consider during both the design and implementation stages (see also Chapter 5).

To fill this gap, we devised an action research project in collaboration with the Foundation Civic Museums of Venice (see Chapter 6). Thus, we collected participants’ evaluations, comparisons, and reflections on different aspects related to both the design and implementation of these programmes.

In this paragraph, we will frame the discussion of the findings to Research Question 1 (*What aspects need to be taken into consideration when integrating CLIL and museum-based pedagogies in the museum context?*), taking into consideration the four main

³² We need to consider that while, internationally speaking, museums usually operate within the framework and guidelines devised by ICOM, they can present striking differences in terms of mission, organisation, and structure. This means that we need to be careful with the extent to which we can generalise our interpretations about museums, as they represent a variety of realities and situations.

aspects/dimensions that emerged from the analysis of the data: vision (10.1.1.), partnerships (10.1.2. and 10.1.2.1.), during-visit context (10.1.3.), and methodology (10.1.4).

10.1.1. Creating a shared vision for CLIL in the museum

The results of our research show that designing and implementing CLIL in the museum is not an easy task, and a deep reflection of the reasons why a museum should want to adopt this approach has emerged as fundamental for the overall development of any CLIL museum programme. This is in line with the literature on CLIL in the school context, which advises towards the definition of “global aims” that influence both the creation of a shared vision of CLIL and the remaining stages of the planning (Coyle, Hood, and Marsh 2010, 49-51).

In the case of our study, the MSN staff highlighted that their agenda in implementing CLIL was to tackle two main objectives: i) increase the number of upper secondary school groups visiting the museum, and ii) promote the use of English as the *lingua franca* of science and international communication, without hindering the mediation of the scientific contents. In a way then, the interest of the MSN staff towards CLIL was due to it being the right tool to engage a specific audience, and, at the same time, to focus on what is contemporary and relevant for the museum to be sustainable (Di Pietro et al. 2014). In fact, as Talboys (2011, 223) claims, “if a museum wants to attract new audiences, if it is committed to delivering quality learning experiences, and if it wants to ensure that audiences come back again and again, it must continually invest in new and improved exhibitions and programs. The buzzword of the day is sustainability”. Sustainability for a museum also means to “generate significant incomes to guarantee their self-sufficiency and autonomy and to become more competitive and self-reliant” (Di Pietro et al. 2014, 5748). However, while being able to meet students and teachers’ needs is a “must” for the financial survival of museums, it is also a requirement for them in fulfilling their supporting role of formal education.

According to Hooper-Greenhill (1994c), school groups “are unlikely to make much use of museums unless their provision relates fairly closely to the areas which are being studied”. Anderson and Zhang (2003, 10) confirms this claim by saying that : “teachers overwhelmingly perceive curriculum fit as the most important consideration in planning and implementing a museum field trip”. From this perspective, and in the light of the formal introduction of CLIL in the Italian school curriculum, the Education Director perceived the need to introduce CLIL in her institution as fundamental. Indeed, in reporting the results of an online questionnaire administered to museums in Italy, Fazzi (2018, 521) claims that: “the increase of CLIL museum

programmes addresses the need of museums to internationalise their educational provision in accordance with the changes affecting the Italian school system”. This is also confirmed by the Education Director who, in her interview, said that, besides the financial agenda, she also perceived the museum as ideally placed to support teachers in facing the challenges of CLIL training and delivery (see Cinganotto 2016 on the challenges of CLIL teacher training in Italy): *the introduction of CLIL involved and is still involving a great effort on the part of teachers to respond to the curriculum changes, and not always they have been able/are able to do so. Museums, when the appropriate pedagogical approach is used, can be incredible tools to support learning. (...)*. The Education Director’s perception is supported by Xanthoudaki’s (2015, 252) assumption that “museums can make a difference because they are able to *instill* a methodology which is part of their very nature, integrated in the things they do well, do for a long time, and are unique at doing (...)”.

What our data suggests is that the introduction of CLIL in the museum context requires a change of perspective. CLIL has been devised for the school context, and as such responds to the agenda of this particular institution. However, we have shown that museums differ from schools in terms of agenda and structure, and they operate under different guidelines. The reasons why the Civic Museums of Venice thought of CLIL as an important tool was that it allowed them to both achieve their financial goals, while also fulfilling their “transformative role³³” in the 21st century (idem, 248).

10.1.2. Establishing a fruitful partnership

Our results show that three different actions affected the MSN staff’s understanding and implementation of CLIL in their context: i) professional training (the CLIL teachers’ training course), ii) recurring dialogue with the Researcher-practitioner on the principles at the basis of CLIL pedagogy, and iii) reflection based upon implementation of the CLIL museum programme on *Animal Classification*. However, the museum staff acknowledged that these three actions required time, close collaboration, and reflection over three intense years. As Coyle, Hood, and Marsh (2010, 49) claim “if there is no tradition of CLIL in a school, the first challenge for pioneers is to bring together a group to share ideas and explore how CLIL might operate in their school”. This is exactly what we did, but our collaboration involved

³³ With “transformative role”, Xanthoudaki (2015) refers to how museums can really be of use to society by innovating and changing it.

professionals with different expertise, working in different institutions, and learning contexts. The challenge for us was in fact that of integrating two different fields of knowledge and practice to create a shared vision. While Coyle, Hood, and Marsh (idem, 69) advice teachers to create communities of “fellow professionals”, what emerged as necessary in our context was to build a bottom-up partnership across contexts – the museum, the school, and the university. In fact, the MSN staff highly valued the collaboration with the Researcher-practitioner both in regards to designing the programmes, and training the other museum educators. However, in reflecting on how we came to design the CLIL museum programmes on *Animal Classification* and on *Exploring the Lagoon*, the MSN staff claimed that an important lesson they had learnt regarded the need to involve teachers in the designing process. MSN Educator 1 underlined that if a museum is committed to support teachers’ CLIL delivery in the classroom, then it has to “learn” from the teachers themselves what they need and expect from a CLIL museum visit. In fact, according to DeWitt and Osborne (2007, 689), “teachers’ perceived needs for resources, his or her agenda or goals for the school trip, and the context in which he or she operates should be a primary consideration in the development of resources for school trips”. However, the dual focus of CLIL and its complexity within an ever changing political and social landscape makes it hard to define a clear model for collaborating with Italian schools. In particular, a question arises in relation to the profile of the teachers to involve in the designing process of CLIL museum programmes: should the museum collaborate with the English language teacher? The content teacher? Both?. The best option would maybe be that of collaborating with a content teacher trained in the CLIL methodology, like we did (see Elena T’s profile in Paragraph 8.2.). In this way, besides giving an idea on the theme that would most likely serve teachers’ needs in relation to the non-linguistic subject curriculum, they could also provide feedback on the balance between language and content in designing the tasks. However, there is no right nor wrong answers, as there is still little knowledge of how these programmes are used, and implemented by teachers (see Paragraph 5.3.).

According to Hooper-Greenhill (1994b), “the success of museum and gallery education services is closely geared to the efficacy of relations outside the museum”. From this perspective, the sense of collegiality within the project helped in creating a shared meaning of why and how to implement CLIL in the museum, and the shape it would take. In fact, as Hargreaves (2003, 84) claims:

One of the most powerful resources that people in any organisation have for learning and improving is each other. Knowledge economies depend on collective intelligence

and social capital – including ways of sharing and developing knowledge among fellow professionals. Sharing ideas and expertise, providing moral support when dealing with new and difficult challenges, discussing complex individual cases together – this is the essence of strong collegiality and the basis for professional communities.

We need to point out that CLIL has also brought about a revolution in the practice of the Civic Museum staff, as it has increased their awareness of both learners’ needs, and of how to support them in becoming active citizens of today society. In taking inspiration from Bier’s (2016, 395) conclusion in regards to CLIL’s power, we can claim that in order for CLIL programmes to be successful in the museum context, it is important for museum professionals to be aware of what CLIL means and convinced of its value before they are able to unlock its innovative potential (see Kiely 2011 quoted in *ibid.*). In two words, they need to be *CLIL believers* (*ibid.*). This is the only way they can really embark on a journey, which the MSN Director himself defined as challenging and requiring more effort and time than any other kind of innovation/experiment in the museum.

10.1.2.1. School-museum collaboration: take 1

“If museums and similar institutions wish to better improve the learning value of school-based field trips, understanding the teacher is a critical first step”

(Anderson, Kisiel, and Storcksdieck 2006, 376)

Our results show that, in line with the research on school-museum collaboration, teachers played different roles during our CLIL museum visits. According to Mathewson (2006, 7), teachers often assume they have a marginal role on the realisation or value of museum experiences, and this might be the reason why most of them simply focus on “following the museum guide, helping with keeping the order, and watching their students” (Falk and Dierking 2005, 932; see also Griffin 2007, 37). In fact, some of them wrongly assume that, once in the museum, “meanings will be transmitted in a naturalistic manner” (Mathewson 2006, 7). Interestingly, we found that the role played by the teachers in our research depended on the subject taught, their familiarity with the CLIL methodology, and their knowledge of English. In fact, Museum Educators 1 and 2, and the Researcher-practitioner all perceived the English teachers as behaving as active facilitators of both the interaction between their students and the museum educator, and the interaction among the students working in groups. On the

other hand, the museum staff described the teachers that were not very familiar with the CLIL methodology or who had a low level in English as either acting passively or failing to recognise the goals of the visit (i.e. switching back to Italian, monopolising the discussion on off-task topics). Within this perspective, both Museum Educator 2 and the Researcher-practitioner realised the importance, at the beginning of the visit, of agreeing with teachers on the distribution of teaching roles during the visit. For example, both educators highlighted how they would ask teachers to keep English as the main language of interaction, and to monitor students' engagement in the task when working in groups. Also, there were multiple occasions in which teachers did not understand the demands for students of participating in a museum visit through English, and booked several other activities in the same day. The museum educators involved in our research reported how students were sometimes exhausted before even starting the CLIL museum visit, simply because they had just finished another activity in another museum. To say it with the words of Museum Educator 2: *it's a torture...I'd hate it too if they obliged me to do something like this...it's not physically possible...you're tired, your legs hurt, your arms hurt, you're thirsty, you're hungry, you can't seat down.*

10.1.3. During-visit: context

The findings in our research show that in designing and implementing CLIL museum programmes there are at least three aspects to take into consideration when considering the context:

- choice of a suitable museum.
- Choice of a suitable theme/topic.
- Choice of the CLIL museum educator.

As regards the first aspect, Museum Educator 2 claimed that the museums chosen in our research project were appropriate for delivering CLIL programmes because they offered a much more relaxed and quieter atmosphere than other more touristy museums in Venice. While this applies to all museum learning programmes, we need to remember that in CLIL, oral comprehension is intrinsically difficult because of the role played by external, linguistic and cognitive aspects (see Coonan 2012 142-143), and physical impediments, such as lack of visual access and background noise (Liubinienė 2009, 90), should be avoided when possible. However, Museum Educator 2 also pointed out that the spaces within the museum were also

appropriate as they allowed students to work in groups, while, at the same time, having access to the museum objects. In fact, the size of the rooms also play a vital role when implementing CLIL museum programmes, as: “both psychological and neuroscience research have confirmed that learning is always rooted in the realities of the physical world, even if abstractly, though typically the relationship is extremely concrete” (Falk and Dierking 2000, 58). Also, taking into consideration the sociocultural context, Falk and Dierking (2000, 194) claim that educators should “design experiences and programs that permit more than one person to share the experience socially and physically”. From this perspective, what we learnt in our research is that if we are to put students in the condition to engage with non-linguistic contents through English, then the following conditions must be met:

- quiet environment, which facilitates both students’ listening and interaction through English and a relaxed learning atmosphere.
- Easy visual access to the museum objects, which helps students’ comprehension as well as their production (i.e. by offering concrete examples) .

In comparing the CLIL museum programme on Animal classification with the one on the Lagoon, the MSN staff came to the conclusion that the theme of the latter was more suitable to be dealt with in CLIL than the former. First, the programme on the Lagoon responded better to the goal of the museum to encourage students to learn about their environment and to be able to share this knowledge with their international peers in English. Second, the Lagoon theme could interest both English and science teachers, and be integrated in different school grades. Third, while engaging students in understanding the difference between homologous and analogous structures was perceived as cognitively difficult, necessarily requiring well-structured pre- and post-visit lessons, the MSN staff felt that exploring the characteristics of the Lagoon was easier for the students even without pre-visit activities. Thus, for a theme to be suitable for a CLIL museum programme, we can conclude that it needs to be in line with the museum mission, and the school curriculum, while remaining cognitively accessible to students.

As regards choosing the right educator, while both the Italian law (see Decree D.D. n.6 dated 16 April 2012; MIUR, 2012) and the literature on CLIL (see Coonan 2012, 2014; Cinganotto 2016; Bier 2016, 2018; Ludbrook 2014) have clearly established the profile required by a CLIL teacher, there are currently no criteria to follow for museum educators involved in CLIL teaching. The reason for this is that, on the one hand, this is a new field of enquiry, and, on the

other, museum educators and teachers work in two different contexts, and their practice is influenced by different professional and legislative requirements. First, there is a distinction between the staff that is fully employed by the *educational departments* of museums, and the museum educators that work on a freelance basis. While the former are responsible for the design and management of the museum educational programmes, the latter are usually only involved in their delivery. Second, we need to consider that that of museum educators is a profession that still needs to be formally recognised. In fact, the “*Carta Nazionale delle professioni museale*” in Italy (ICOM 2005) only offers recommendations on the knowledges and competences that a museum educator should have, but museums are free to decide who to employ and with what type of contract.

Within this context, CLIL certainly adds an extra challenge to the definition of what a museum educator needs to know and be able to do when delivering CLIL museum visits.

The results of Fazzi (2014) show, for example, that native like competence in the FL, and EFL teaching competence are not enough for a museum educator to successfully deliver CLIL in the museum, unless he/she is also familiar with the museum context and contents, and with the principles of museum-based pedagogy. Our findings tally with Fazzi’s (2014) and suggest that a CLIL museum educator should have a *hybrid* profile, integrating both CLIL and museum-based teaching principles. In particular, in exploring the knowledges, skills, and competences required, the participants in the research affirmed that a CLIL museum educator should:

- have a high competence in the FL, and be familiar with subject-specific and classroom management vocabulary in the FL.
- Be familiar with the museum context, and subject specific contents in relation to the museum collection.
- Be familiar with the principles of museum based pedagogy, facilitating enquiry, thinking, problem solving, and observation skills, encouraging students’ interaction, and promoting their interest and curiosity.
- Be able to use different strategies to scaffold students’ understanding and interaction.
- Be able to exploit the potential of the materials devised, by adapting them flexibly to the specific audience.
- Be positive, emphatic, and a great communicator.

10.1.4. During-visit: methodology

When discussing the positive and negative aspects of the methodology adopted in the CLIL museum programmes, the museum staff claimed that finding the right balance between content and language was not an easy task. This is in line with much of the research on CLIL planning (see Coonan 2012; Coyle 2006; Meyer 2010; Coyle, Hood, and Marsh 2010). However, what certainly helped in our case was to have pre-existing activity books and worksheets, which were already designed to both scaffold students' learning of the contents, and to encourage their interaction with the museum educator and peers. In fact, what emerges from the museum staff's fruitful discussion and interviews is that, unlike traditional classroom learning, good museum teaching has much in common with teaching in CLIL. This confirms Shoemaker's (1998, 43) finding that "good museum teaching is also good ESL teaching".

However, the issue with teaching in CLIL in the museum is that the design of the visit/programme does not have a specific group of students in mind. In fact, we realised that what we needed was a standard visit format with standard *activity books* and worksheets that could be flexibly used and adapted on the spot by the museum educators. From this perspective, we also found that the true challenge was to use questions (see Menegale 2008) and practical activities/experiments to scaffold students' learning through English, but also to capitalise upon students' engagement with the museum objects and expand/integrate their learning (see Hooper-Greenhill 1994a). Only in this way, we were able to face the challenge of engaging students with different language and content competences (see also Caon 2008), and prior knowledges.

However, the results of our inquiry also show that the tasks devised were not always able to promote students' *flow experience* (see Csikszentmihalyi and Hermanson 1995). Through analysing the museum staff, Researcher-practitioner, and students' perceptions, we realised that some of the activities (i.e. Colouring activity in Worksheet 1; see Appendix A) did not satisfy all the conditions outlined by Falk and Dierking (2000, 24) as they did not always: contain coherent and clear goals for actions, nor provide clear and unambiguous feedback. However, we also realised that some of the tasks originally designed (i.e. Definition of homologous and analogous structures in Worksheet 4; see Appendix A) were too demanding both linguistically and cognitively. The difference between CLIL at school and in the museum lies in the undeniable truth that, unlike classroom learning, "which is composed of linear sequences units that rely on prior knowledge and previously learned scientific concepts, museum-based learning occurs in short time units, does not require continuity, and relies on

curiosity, intrinsic motivation, choice and control” (Bamberger and Tal 2006, 77). In this sense, we realised that the combination of the short duration, one-off experience of the museum visit, and the use of CLIL made it necessary to revise some of the tasks, and reduce the objectives initially set. In fact, in her journal, the Research-practitioner often expressed her stress in having to rush during the CLIL museum visit on Animal Classification to reach the recap stage, and not all students were able to complete the Cladogram at the end of the visit.

On the other hand, when analysing the tasks of the CLIL museum programmes, while they were successful in following a “route from low linguistic and cognitive demands to high linguistic and cognitive demands” (see Coyle, Hood, and Marsh 2010, 68), they did not always meet the conditions of museum based pedagogy. In fact, we modified the Listening activity in Worksheet 1 (CLIL museum Programme on Animal Classification; see Appendix A), and the Listening activity on Tiepolo’s fresco (CLIL museum programme at *Ca’ Rezzonico*; Appendix A) because we realised they did not support students’ engagement with the museum objects. From this perspective, we need to highlight that for museum tasks to be successful, whatever the medium of communication, they have to promote students’ close observation of objects, curiosity, and a sense of discovery. Indeed, while in the classroom, students primarily engage with written and oral texts, in the museum, they primarily engage with objects.

Our results show that while enjoying the structured format of the visit and the provision of worksheets, students felt they wanted to have more time to tour the museum on their own. This is in line with Bamberg and Tal’s (2007) research, according to which students are more engaged in worksheets that offer “some kind of structured task or direction”, but also allow “some choice and control in exploring an exhibition”. While we tried to promote students’ choice and control over their learning by providing them with group work and self-directed activities, they still felt they wanted more time to engage emotionally with the collection. In fact, according to DeWitt and Osborne (2006, 690), “resources should be developed with a focus on evoking pupils’ curiosity and allow them to pursue their own interests”. In this sense, we came to the conclusion that allowing students some extra time either before or after the CLIL museum visit would better address their needs and expectations.

As regards the format of the visit, our findings suggest that the introduction and learning agreement in the *Welcome stage* at the beginning of the visit are fundamental in both explaining the methodology and the structure of the visit, and in encouraging students’ engagement and use of English. As Caon (2008, 41) points out, the role of the teacher is pivotal in creating a positive learning atmosphere through both establishing meaningful relationship with his/her students, and supporting students’ co-constructive and collaborative work. To do so, what

he/she has to do is to agree with the students on the objectives and lessons in the classroom (learning agreement; idem, 42). The literature on classroom CLIL also underlines the importance of sharing with students learning objectives, expectations, and responsibilities (see Serragiotto 2014a, 59; Coonan 2012; Coyle, Hood, and Marsh 2010). However, in the context of CLIL teaching in the museum, the extra challenge is represented by the fact that the visit is led by the museum educator, who has very little time to bond with the students. In this context the museum educators agreed that the *Ice breaker* was very important both to give students the chance to get familiar with the museum educator, and to encourage them to interact in English by lowering their affective filter (see Krashen 1987; Balboni 2015). Our findings also suggest that praising students' work and performance in English during the *Final remarks* at the end of the visit is important as it promotes their positive self-concept as users of English and motivates them towards engaging in similar experiences. From this perspective, the museum educators agreed that they felt compelled to positively comment on students' efforts, as participating in a CLIL museum visit is both linguistically and cognitively challenging. The goal of a museum educator is, in fact, that of both inspiring and encouraging visitors, whatever the type of audience, to come back to the museum (see Johnson 2009).

10.2. Integrating the CLIL museum visit into the upper secondary school curriculum

According to Menegale (2013), the main aim of language education is that of bridging the gap between what students learn in the classroom, and what they learn beyond. However, the literature on how to integrate non-formal CLIL experiences into the school curriculum is very scarce. In this scenario, our research aimed at exploring the aspects that need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum (Research Question 2). To do so we collected participants' evaluations, comparisons, and reflections as regards the positive and negative aspects in relation to both the design and implementation of the school-museum integrated CLIL module on *Animal Classification*.

10.2.1. Teachers' goals, expectations, and perceptions

There is substantial evidence that the main concern for teachers when organising a field trip to a museum lies in how much its goals fit the school curriculum (see Anderson and Zhang 2003;

Anderson, Kisiel, and Storksdieck 2006). In fact, we already said that school groups are “unlikely to make much use of museums unless their provision relates fairly closely to the areas which are being studied” (Hooper-Greenhill 1994c, 165). This is the reason why we strove very hard both to connect the aims and objectives of the CLIL museum visit to the school curriculum, and to create in teachers the right expectations by sending them the “Teachers’ supporting document” (Appendix A). As highlighted in the document, the visit had mainly three aims: 1) the promotion of content and language integrated learning, 2) the use of English in an out-of-school authentic context, and 3) the promotion of students’ problem solving, and creative thinking skills.

What we found in our study was that teachers’ (Group 2) goals and expectations were in line with those set and communicated by the museum. However, teachers priorities in booking the visit differed according to the subject taught. While content teachers were interested in the connections with the school curriculum, the English language teachers were mainly attracted by the possibility of students to use English outside of the school context. However, some of the teachers also considered the dual goals of the visit as particularly interesting, as they could combine both content and language learning in just one visit. On the other hand, T3 (English language teacher) pointed out that her interest in the visit lied on the opportunity for students to engage with museum objects to enhance their critical thinking. Interestingly, when the same teachers were asked if the visit was in line with their expectations, 8 responded very positively, while 3 took a less positive stance. When investigating the reason behind the less positive results, teachers’ open ended responses highlighted that they would have liked more connections to the particular topic they were studying at school. For example, T3 and T4 claimed they would have liked the Researcher-practitioner to explore the connections between the modern art exhibited at *Ca’ Pesaro* and the European dictatorships in the twentieth century. However, the main content objective of *Looking for the right words* at *Ca’ Pesaro* is for students to “recognise, in the complex art matters of the XX century, some of the main passages between figurative and abstract art through the analysis, description and interpretation of some of the museum masterpieces” (see Paragraph 6.2.1.). Thus, T3 and T4’s requests did not specifically align to the content objectives set for the programme. Even though the philosophy of the Civic Museums of Venice, and in general of “good” museums, is to create tailor-made experiences, through creating standard visits/materials that can be adapted to the needs of the specific group, one may wonder if the characteristics of CLIL learning and teaching (see Chapter 4) can allow for this much flexibility.

10.2.2. School-museum collaboration: take 2

Our investigation reveals that very few of the teachers in Group 2 (not involved in the intervention of the school-museum module) integrated the CLIL museum visit in their curriculum with pre- and post-visit activities. These findings are similar to the outcomes of other studies on teachers' perceptions of field trips (Anderson and Zhang 2003, Falk and Dierking 2005, Anderson, Kisiel, and Storksdieck 2006), which found that there is a disparity between teachers' pedagogical beliefs and field trip practice. In fact, while teachers (Group 2) in our research perceived the CLIL museum visit to be a highly valuable educational experience for their students, they still claimed that they would not follow up the visit with any activities in the classroom. On the other hand, while teachers in Group 2 were in general satisfied of the support received by the Civic Museums of Venice (see Teachers' supporting document in Appendix A), the Marco Polo teachers (Group 1) were not as positive in relation to creating another integrated module on their own. In fact, they stressed that to embark on this experience again they would need the museum's support both in terms of preparatory materials (i.e. museum-produced documentation in English, and online links to materials and activities in relation to the contents of the visit), and organisation of the visit (see Griffin 2007, 37).

Within this context, the Marco Polo teachers acknowledged that the Researcher-practitioner played a pivotal role in creating the pre-visit and post-visit activities for the school-museum integrated module on *Animal classification*, and that they would not feel comfortable in doing the same on their own. In fact, Stefano TA and Elena T's expressed their concern as regards creating pre- and post-visit activities around the theme of the museum visit *Exploring the Lagoon* because of: i) their lack of familiarity with the topic, and ii) the difficulty of finding authentic materials on the Lagoon of Venice.

As regards the organisation of the visit, Paola T and Stefano TA described the experience of arranging the logistics of the field trip as a "nightmare". According to Anderson, Kisiel, and Storksdieck's (2006, 380), "the multitude of logistical details teachers have to consider in their field trip planning can be overwhelming". In reporting her experience, Paola T claimed that the whole experience of scheduling the museum visit, finding a substitute teacher back at school, collecting parental permission, making the payment for seven different groups was so challenging that she would think twice before creating again a school-museum integrated CLIL module. This confirms Anderson, Kisiel, and Storksdieck's (2006, 380) claim that "easy access to materials and experiences that support field trips is critical, as teachers with extensive pedagogical responsibilities and limited time are unlikely to track down ways to blend the field

trip with their curriculum”. In fact, Paola T expressed the need to have more support both from her school’s administration and from the museum, in case she decided to repeat again the experience of the integrated CLIL module.

10.2.3. CLIL Team Teaching in and beyond the classroom

As Menegale (2014, 64) points out, the Ministry of Education in Italy has long suggested and encouraged the collaboration of the content teacher with the language teacher (Team teaching³⁴), even when the former is formally trained in the CLIL methodology. The importance behind this collaboration lies in the need to integrate different competences: while the content teacher can contribute with his/her competences in relation to the teaching of the content, the language teacher can contribute with his/her experience on what activities/strategies are better suited to scaffold students’ understanding, and promote their language learning. However, our findings suggest that students who participated in the CLIL museum programmes in the three years were rarely accompanied by both the language and content teachers, reflecting the issue of Team Teaching in formal CLIL (Coonan 2003; Lucietto 2008). Also, both Museum Educator 2 and the Researcher-practitioner acknowledged that students were often accompanied by teachers whose subject was not related to the visit itself. In this case, the accompanying teachers were simply chaperones of the students during the field trip. We need to point out that, on the one hand, Italian teachers find it challenging to “talk to each other, as their professional viewpoints are often worlds apart” (Dahl 2000 quoted in Lucietto 2008, 87). On the other, “in secondary schools, graduate teachers do not share a sound pedagogical basis but only separate, subject-specific professional skills”, which makes it difficult for them to collaborate and trust each other’s point of view (Lucietto 2008, 87). This is true in the day-to-day practice at school as much as in the preparation of field trips to museums. In fact, some teachers tend to view field trips as fun events instead of well-planned educational experiences (Falk and Dierking 2005, 932).

However, in order to create multidisciplinary and cross-contexts projects, such as a school-museum integrated CLIL modules, Team Teaching is highly important for the successful integration of the visit in the school curriculum.

³⁴ According to Menegale (2014, 63; our translation), “Team Teaching” denotes “a series of strategies of group teaching, which vary according to the team, their teaching style, the learning objectives they want to fulfil, and the methodologies they decide to apply”.

Interestingly, in reflecting on the experience of the module on Animal classification, Paola T acknowledged that she struggled both during design and implementation of the module, because of her lack of training in the CLIL methodology, and her low level in English. In particular, she said that at the beginning she had found it difficult both to understand, and adapt to the new teaching approach. Thinking back on how we designed the module, while Paola T and Stefano TA certainly contributed with their expertise of the science contents, and through looking for valuable materials, the methodological responsibility to adapt these materials and create scaffolding strategies lied mainly within the couple Elena T-Researcher-practitioner. Interestingly, Paola T and Stefano TA's lack of awareness of CLIL principles was also evident in the way they interacted with the students during the CLIL museum visit.

This leads us to conclude that what our Team Teaching missed was a stage (meetings) in which the less expert teachers could develop an understanding of the CLIL principles, as suggested by Lucietto's (2009) CPD consultancy model. Also, while our team consisted of both content teachers, and a language/CLIL expert external to the school (the Researcher-practitioner), the module would have highly benefitted from the presence of the English language teachers. In fact, the Marco Polo teachers had little knowledge of students' English language level, and while, on some occasions, they claimed to be surprised of how well some students could perform both in class and outside, on other occasions, students found some of the in-class tasks difficult (see Paragraph 9.2.2.5.). This evidence supports Pavòn Vázquez's (2014, 118) claim that Team Teaching in CLIL is much more complex than the simple content-language teachers *duo*, but involves different levels of collaboration within the school community, and, as in our case, with other stakeholders (the museum; see Paragraph 10.2.2.).

10.2.4. The “washback effect” and the value of the integrated module

However, we also would like to point out that, despite the issues highlighted in the previous paragraph, participation in the Team Teaching and in the creation of the module had also positive effects on the Marco Polo teachers. In particular, during the fruitful discussion, both Elena T and Paola T acknowledged that students' higher engagement and attention during the collaborative activities both in class and in the museum had encouraged them to apply in the Italian lessons some of the innovations experimented during the module. Coonan (2016) defines this positive impact of CLIL teaching on “traditional” teaching as the “washback effect”. In fact, the Marco Polo teachers claimed they were now on the “hunt” for more

cooperative, but still feasible, activities that could engage the students as actively as during the integrated module.

Interestingly, by the end of the module, the Researcher-practitioner also noticed a change of behaviour in the Marco polo teachers at the museum. In fact, she reported in her journal that, after a few CLIL museum visits, Paola T and Stefano TA started to align more to the objectives of the visit. In particular, Paola T seemed to win her initial embarrassment and started to communicate with her students in English during the visit, while also reducing off-task conversations in Italian. On the other hand, the Researcher-practitioner noticed that Stefano TA felt more comfortable in helping her to support students' engagement with the museum objects through English.

10.2.5. Integrating the three stages: pre-, during-, and post-visit

The Marco Polo Art students were unanimous in claiming that they had enjoyed the integrative nature of the module, viewing the museum visit as an invaluable component of their learning. As Woodward (1998 quoted in Hooper-Greenhill 1994a, 120) claims, “very often although the museum visit is only one component in the programme of study, it is the hinge that articulates other aspects of the learning process, and as such is essential to the course of study”. In Chapter 10.3. and 10.4., we will discuss in more detail in what way the CLIL museum visit was an “irreplaceable” (Xanthoudaki 2015, 255) experience within the CLIL module, while here we will concentrate on the pre- and post-visit activities, and overall organisation of the module.

The analysis of the data in Chapter 9.2. reveal that the Marco Polo Art students regarded the pre-visit activities as a fundamental stage in preparation for the CLIL museum visit. In fact, in the focus groups, they acknowledged that the lessons before the visit (1, 2, 3, and 4) had been helpful both in understanding what to expect, and in building the conceptual and linguistic basis necessary to successfully engage in the CLIL museum visit. Also, students were unanimous in saying that the pre-visit lessons had played a fundamental role in supporting their comprehension during the museum visit, and in promoting their curiosity and interest.

What we can thus claim is that the pre-visit activities were helpful in reducing the Novelty effect (see Paragraph 3.6.), because they not only increased students' familiarity with the location, but also ensured that students had the appropriate level of knowledge of the topic and of the language, while also practising relevant skills.

We have already described the three stages process (pre-, during, and post-visit) as the most valuable way to capitalise on students' learning resulting from a visit to the museum (see

Xanthoudaki 2003, Xanthoudaki et al. 2007; Paragraph). According to Xanthoudaki et al. (2007, 2), “results show how the three-part unit model produces positive learning outcomes when explicit links are established between the content of the museum experience on the one hand, and that of classroom activities and the school curriculum on the other”. However, we also need to point out that recent developments in the field of museum learning have slightly moved away from the three-part unit model, in favour of a more open-ended and autonomous learning experience. This is also confirmed by the Education Director’s negative perceptions in regards to teachers’ overpreparation of students.

In our opinion, when a FL is involved as the medium of learning/interaction, pre-visit lessons is a step we should not miss. This is supported by the theories at the basis of FL/L2 acquisition, which have long demonstrated that language acquisition is promoted when the learning activities proceed from a global stance (right hemisphere; promotion of affective dimension and activation of prior knowledges) to a more analytical stance (left hemisphere; focus on the contents and skills we want students to learn; see also Mezzadri 2015 and Balboni 2015).

Within this perspective, the real question is not in whether we should provide students with pre-visit lessons or not, but in what goals and format these lessons should have. In fact, students’ claimed that, while supporting their learning during the CLIL museum visit, some of the pre-visit tasks were either too boring or too complex, as they did not follow a gradual progression from easier to more complex (see Coonan 2008).

When talking about the link between the pre-, during-, and post-visit units, students also claimed they would have liked to capitalise more on the museum visit once they returned in the classroom. In fact, they felt they did not have the opportunity to integrate, and expand the contents and language learnt during the experience, nor to share how they felt during the museum visit. This perception was confirmed by the Team Teaching during the fruitful discussion. Stefano TA, for example, highlighted how the timeline of the module was so short he felt they had to rush to get to the assessment stage. Also, the issues encountered in arranging the museum visits and the CLIL lessons in the classroom according to the school calendar resulted in a lack of continuity in the organisation of the module. Indeed, the module had to be often interrupted with lessons in Italian and on a different topic, leading to both students’ confusion and teachers’ frustration.

10.2.6. Poster and Assessment

Despite some negative comments, overall students were enthusiastic about the choice of the poster as summative assessment of the module. We would like to stress that while Paola T and Stefano TA's students were required to create the poster by working in group, Elena T and the Researcher-practitioner's students worked on the poster individually. However, in both cases, and despite some exceptions, our findings suggest that the majority of the students showed commitment, and interest in both designing and presenting the poster. This is supported by the complexity of the artefacts produced by the students, by the fact that most of them decided to deliver the presentation in English despite the linguistic challenge, and by teachers' own perceptions and grades. While Lasagabaster and Beloqui (2015) find no relevant repercussion of using *project work* on students' motivation in CLIL settings when compared with more traditional approaches, our results seem to contradict the authors' findings. Students in our study pointed at the poster (project work) as one of the aspects, which they most enjoyed of the module, because it was something different from the usual written/oral tests, and it gave them the chance to "own" their learning.

Unfortunately, we realised that in the context of a school-museum integrated CLIL module, the poster was not designed in a way to really expand, and integrate the learning resulting from the CLIL museum visit, and capitalise on its affective value. In fact, we decided to ask students to choose one of the topics they dealt with during the module, and only a few students chose the one related to the CLIL museum visit. When asked while this was, students responded that they had perceived the topic of the museum visit as more difficult in comparison to the others, and they had not felt confident in exploring it on their own. Also, while enjoying working on the poster, students also argued that it would have been better if they had had the chance to present it in the museum. When probed on the topic, students suggested ways they could have organised a power point presentation directly in the conference room of the Natural History Museum of Venice. This supports Lasagabaster and Beloqui's (2015) claim that: project work "needs to keep children absorbed and teachers should highlight the projects' connections with real life. Teachers should work on how to design projects that will motivate students more, as merely implementing PW is not a panacea".

However, also the portfolios used as formative assessment (see Serragiotto 2014a, 2014b) and the assessment grids proved to be problematic. As regards the former, both teachers and students found it exhausting to have to check worksheets were in order and completed. As regards the latter, during the assessment of the poster presentations, teachers realised that the

assessment grid was ambiguous as regards what was being assessed: if the presentation or the design of the poster. When reflecting on the performance of the students, teachers agreed that while they felt that the experience had been highly educational for the students, they were not able to say whether the learning objectives had been reached. Finally, some of the students also lamented getting a lower grade, because of their low competence in English. All these issues confirm that, on the one hand, the assessment of a school-museum integrated CLIL module should carefully apply the principles of CLIL assessment (ibid.), and on the other, it also has to fully integrate the museum experience in the project work, contributing to bridging the gap between the classroom and “real life”.

10.2.7. Designing school-museum integrated CLIL modules: should we involve students?

When asked whether they would consider to participate in another school-museum integrated CLIL module, the Marco Polo art students were enthusiastic. However, they expressed a very strong wish to be involved in both the choice of the topic/subject, and of the out-of-school setting to visit. In reflecting on the overall design and implementation of the module, we realised we did not place the necessary importance on students’ use of English beyond the classroom, nor on their interests, and career plans (in Chapter 10.3. we will discuss the impact that these variables had on students’ attitudes). However, as the literature on both science (Cox-Petersen et al. 2003) and language (Menegale 2013) education shows, a more structured reflection in the classroom is needed if we really want to help students bridge the gap between content and language integrated learning in and beyond the classroom. Also, both Lasagabaster (2017) and Coyle (2013) suggest that learners need to be actively involved in defining the successful aspects of CLIL experiences. In fact, students in our sample claimed they would like to participate in the design of a future module, as they felt mature enough to contribute with their “own” perspective.

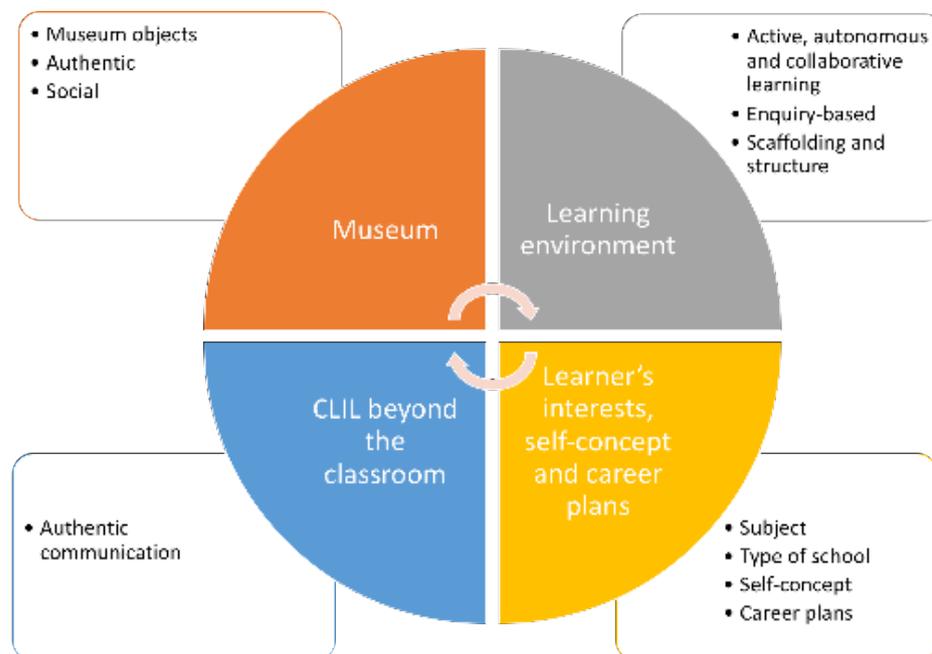
10.3. Students' attitudes towards CLIL learning in the museum

While research has widely documented the benefits of CLIL at school, there is still little evidence of its value in an out-of-school context. In our study, we analysed the impact that participating in a CLIL museum learning visit has on upper secondary school students' attitudes. In so doing, we also tried to establish whether students engaging in pre-visit activities (Group 1) at school would show more positive results than students only participating in the CLIL museum visit without any previous preparation (Group 2). We have ascertained that both the Marco Polo Art students (Group 1) and students in Group 2 show very positive attitudes towards both the overall CLIL museum experience (Factor 1) and the use of English outside school (Factor 2). The qualitative data tally with the quantitative data, as both students' open-ended responses across the two groups, and Group 1's focus group discussions show that students perceived museum learning as more interesting and engaging than school learning. Also both teachers in Group 1 and 2, and the Researcher-practitioner's perspectives confirm students' positive affective responses to the CLIL museum visit. Unexpectedly, students in Group 2 were significantly more positive than students in Group 1 as regards the use of English outside school (Factor 2).

In trying to explain these results, we can claim that students' attitudes resulted from the interaction of four main dimensions (see Figure 37):

- 1) use of the museum setting (i.e. museum objects, different context than school, sociocultural dimension).
- 2) Use of CLIL *beyond* the classroom (i.e. authentic communication as regards the contents and the out-of-school setting).
- 3) Learning environment characterised by enquiry-based, collaborative, and autonomous tasks, *scaffolding* and structure.
- 4) Learners' background, interests, self-concept, and career plans.

Figure 37: Visual representation of the four dimensions contributing to students' attitudes towards the CLIL museum visit



In the following paragraphs, we will explore these dimensions in more details.

10.3.1. Museum context

Students in both groups, and across types of school, and museums reported very enthusiastic comments about engaging with the objects and specimens exhibited in the museums. In fact, when asked what made learning in the museum different from learning in school, the Marco Polo Art students immediately pointed at the specimens, making constant references to their physical characteristics, their smell, and even their disposition in the museum. Even though the focus groups took place weeks after the visit, the wonder, surprise, and amazement generated by engaging with the museum objects were still vivid in both students' narratives and non-verbal language. Indeed, while classroom learning is text-based, museum learning revolves around objects that provide a direct access “to ‘the real’ – the original creative act, or a rare natural entity” (Evans, Mull, and Poling 2002, 72), and thus trigger amazement, positive emotions and curiosity. Interestingly, what also emerges from the participants' qualitative data is that students going to the *Natural History Museum of Venice* also had negative responses to the specimens. Some of the Marco Polo Art student, especially those who were vegan or felt

very strongly about protecting the animal world, raised important ethical concerns both in their posters and presentations, and during the focus group discussions, as regards the exhibition of stuffed animals (Giulia: *I personally don't like to see dead animals on the walls. I appreciated however fake animals reconstructed with synthetic materials. I prefer live animals*).

Students also indicated that what they liked the most was the social dimension of the museum visit, as being able to share this experience with their peers, and teachers felt both enriching and different from the mundane characteristics of learning in the classroom.

10.3.2. CLIL beyond the classroom

Students reported how using English to learn and engage with museum contents not only lowered their affective filter (Krashen 1982), promoting more fluid and authentic communication, but also boosted their confidence as language learners/users (see also (Ruanglertbutr 2016, Shoemaker 1987). In effect, the majority of the students in our sample confirmed that the CLIL museum experience has been a unique opportunity for them to use and practise their FL skills in a more authentic way, in preparation for future work and study abroad experiences. In confirming Menegale's (2013) results, we found that the students in Group 1 perceived the English learnt during the museum visit as different from that learnt in the school setting. In fact, one of the Marco Polo Art students claimed: *I mean, outside, to speak with English people, to speak and listen...it's something completely different...it's almost like it's a different language...in the end, it's much more difficult right?!* Also, students claimed that the words and language they came in contact with at the museum were different from the ones they usually ran into in their EFL school classes. Of course, the increased authentic communication provided by learning in CLIL in comparison to learning in EFL contexts is widely recorded in the literature as are the benefits of CLIL on students' affective factors (see Paragraph; Lasagabaster 2017, 2011; Coyle 2013). However, what emerges from the analysis of our data is that when applied in the museum, CLIL “gets the extra powers”, as it offers students the opportunity to use English to engage with personally, cognitively, and emotionally meaningful experiences, which also involve people of the world beyond the classroom. In fact, the Marco Polo Art students reported to have started off conversations also with the invigilators working at the *Natural History Museum of Venice*. This is something we had not foreseen when creating the museum tasks and visit format. After realising the CLIL museum visit was designed to help students develop their English skills, the invigilators autonomously decided to address them in English, and support them in completing the tasks

on the worksheets. They also reminded students of the appropriate behaviour to keep in the museum galleries, always using the English language, and thus contributing to the communicative *realness* of the experience. As Goffman (1981 quoted in Lehn, Heath, and Hindmarsh 2001, 206) suggests, “the museum experience arises continually in and through the actions and activities of visitors, and it depends on how visitors remain aware of and sensitive to the conduct of others who happen to be in perceptual range of the event”. In fact, when CLIL is delivered in the museum, the engagement with the museum contents through English is also influenced by the presence and performance of others in the periphery of students’ actions (see Lehn, Heath, and Hindmarsh 2001).

10.3.3. Learning environment

Students also particularly valued the innovative methodology of the CLIL museum visits. Both students in Group 1 and 2 stated that they very much enjoyed the enquiry-based tasks, and to be actively engaged in group work. Indeed, they perceived the CLIL museum visit as more enjoyable and fun in comparison to more traditional and guided-led museum tours. In particular, what emerges from the analysis of the focus group data is the recurrent identification of the CLIL museum visit on *Animal classification* with a “treasure hunt”. Students felt stimulated to look for information, by applying the principles at the basis of the scientific method, and challenged each other in completing the worksheets. Group work was characteristic of all the CLIL museum programmes, and as such proved very successful to stimulate students’ autonomous learning, interest, and enjoyment.

However, in agreement with the literature on museum learning (Bamberg and Tal 2007; Paragraph 3.9.1.), students also confirmed that using worksheets that had some structure and direction benefitted their engagement with the specimens and their learning. While they admitted that they would have liked to have some more time to tour the museum on their own, they also agreed that the scaffolding and support offered by the museum educator and through the use of the glossary and tasks contributed to their confidence.

These results support Rodenhauser and Preisfeld’s (2018) claim that, when involving students in bilingual out-of-school laboratory courses, “the challenge seems not to be letting students solve problems on their own, without any kind of instruction, but to construct a structured and guided learning environment which the learners do not perceive as instructional”. In fact, Enrico, one of the Marco Polo Art students, claimed that the CLIL museum visit didn’t even feel it was school related.

Our results suggest that the learning environment provided during the CLIL museum visit was in line with the principles of the theory of Flow (Csikszentmihalyi and Hermanson 1995), but also supported the basic needs as identified by the Self-determination Theory (Deci and Ryan 2000). In fact, students reported that the CLIL museum experience proved to be enjoyable, and interesting, while also providing the right level of challenge.

10.3.4. Learners' interests, self-concept, and career plans.

External reviewers have suggested that the significantly more negative attitudes of the Marco Polo Art students might be due to a detrimental effect of the pre-visit activities. While this might be the case as the Marco Polo Art students referred to the lessons before the visit as sometimes boring, and/or challenging, with too much of a cognitive gap between one and the other (see Paragraph 9.2.2.4.), they also described them as indispensable for supporting their learning during the museum visit. Thus, we think that it is more likely that the “type of school” attended by the students could have had a stronger impact on their attitudes than the pre-visit activities. Indeed, while students in Group 1 had an art based school curriculum, with few science and English language classes, students in Group 2 attended *liceo scientifico*, *liceo linguistico*, and *istituto professionale* in which English language classes take up more of the timetable and represent a core subject in the curriculum. The statistical difference could thus be explained by students' interests and type of school. In effect, the focus group data reveals that students in Group 1 would have preferred an art based CLIL module rather than a science based one, leading us to believe that there is a connection between CLIL beyond the classroom and students' future professional selves. In particular, many of the art students commented on the possibility of becoming tour/museum guides, thus concluding that to be able to talk about artworks in English would certainly help them in their future career. On the other hand, the Marco Polo Art students also affirmed that going to the museum positively affected their attitudes towards science. These perceptions are supported by the system of GLOs (Hooper-Greenhill et al. 2003), which theorises that learning in the museum promotes visitors' change in attitudes and values. In the light of these opposite results, another possible explanation could be that the Marco Polo Art students' attitudes towards the use of the FL beyond the classroom might have been influenced by their low self-perceived language competence, and self-esteem as English language users. Indeed, in the focus groups, students often described their competence and ability in using English in very negative terms.

10.4. Learning gains of CLIL learning in the museum

The aim of our study was also to investigate upper secondary school students' perceived learning outcomes resulting from participating in the CLIL museum visit at the Civic Museums of Venice. We have ascertained that students in both groups perceived the visit as highly useful in promoting their authentic learning both as regards the non-linguistic subject, and the FL. Students' results are also confirmed by both their teachers (Group 1 and 2), and museum educator's (the Researcher-practitioner) perceptions. For the most part, the qualitative data tally with the quantitative data, apart from students' beliefs as regards the skills most practised during the visit (see Chapter 9.4.).

In analysing the data (see Chapter 9.4.), we grouped students' perceived learning gains under the following categories: *Skills and vocabulary*, *Knowledge and understanding across contexts and subjects*, and *Support*.

10.4.1. Skills and vocabulary

In the quantitative part of the questionnaire, the majority of the students reported to have practised their receptive skills (listening and reading) more than their productive skills. Students' beliefs were also confirmed by teachers' (Group 2) quantitative responses, and by the Researcher-practitioner's observations as reported in her journal. However, in their open-ended responses and focus group data, students in both groups particularly emphasised that the reason they had found the CLIL museum visit useful was because it had given them the chance to speak and interact in English with their peers. In fact, students in Group 1 often commented on the difference between the CLIL museum visit and their EFL lessons, saying that in the latter they normally focus only on grammar exercises. Thus, what we can hypothesise is that, while not perceiving it as the most practiced skill, the CLIL museum visit was still seen as one of the rare opportunities for them to speak in English.

In the questionnaires, the majority of the students agreed that the main outcome of the CLIL museum learning visit was the development of new subject-specific lexis. This finding was also confirmed by teachers' perceptions. Interestingly, the Marco Polo Art students recognised that the difference between their CLIL classes at school and the CLIL visit at the museum was that, in the latter, the science words were presented through a combination of multisensory

inputs, making them not only more relevant and interesting, but also easier to recall. The role that experience plays on memorising and recalling vocabulary is well established in the literature on the *Theory of Embodied Language* (see Gallesi and Lakoff 2005; Glenberg and Kashack 2002; Buccino and Mezzadri 2013). This theory suggests that “there is no human faculty that is not embodied, that is rooted in the human body’s experience” (Mezzadri 2015, 114; our translation). Thus, according to Mezzadri (ibid), “when teaching and learning an L2 or FL, the linguistic item needs to refer to something that has already been part of the learners’ sensorial and motor experience”. Students appreciated that the vocabulary learnt at the museum was different both from the one they usually run into in their EFL classes (see also Paragraph 10.3.2.; see also Coyle 2013), and during their preferred informal English learning activities (i.e. listening to songs). However, they felt that through learning these words during a real life experience, they also understood their relevance and how to use them. On the one hand, these results are supported by several theories on the positive impact that presenting students with multimodal inputs has on their memorisation of new vocabulary (see Balboni 2015, Mezzadri 2015, Bisson et al. 855). On the other, they are also in line with the principles of the Humanistic approaches for language education, which are based on the assumption that *experience* is the starting point of any language learning path, because “learners respond to visual stimuli, objects, and pictures, and not to abstracts, such as grammar rules” (Mishan 2005, 6).

However, the Marco Polo Art students also argued that despite finding the science-specific terminology interesting, they would unlikely be able to use them, because of their art-based school curriculum, and career plans (see Paragraph 10.3.4.).

10.4.2. Knowledge and understanding across contexts and subjects

Students in both groups said that the CLIL museum visit was useful and interesting inasmuch it gave them the opportunity to increase their knowledge and skills in relation to both the content and English. This finding is supported by most of the literature on the benefits of CLIL learning (see Lasagabaster 2011, 2017; Coyle 2013). Interestingly, the focus group data shows that students viewed their engagement with the museum objects as supporting their understanding and learning of the science concepts. In fact, object-based learning “not only gives confidence to students with different strengths and weaknesses, but also helps solidify students’ grasp of the concept being studied” (Wilson 2012, 11). Also, objects allow for deeper

learning as they offer concrete evidence, which can then be used to understand and verify abstract concepts at different stages of the learning process (Hooper-Greenhill 1994).

It can thus be suggested that complementing CLIL school lessons with CLIL museum visits can also positively support students' understanding and learning of science contents through a FL. This is also confirmed by Meyer (2010), when capitalising upon the importance of providing CLIL students with multimodal inputs. He claims that “ the various ways of presenting subject specific matter visually (through maps, diagrams etc.) not only allow for diversified teaching and promote visual literacy, they also enable a deeper understanding of the specific subject content and serve complex matters presented in a foreign language” (idem, 14).

Moreover, the Marco Polo Art students reported that the museum experience helped them to revise, and integrate what they were learning in school. Interestingly, they found this aspect motivating, as they not only lived a truly holistic experience, but they were also able to bridge the gap between what they were learning in school with what they were learning at the museum. In this sense, providing students with a module that integrates CLIL learning in the classroom and in the museum can be considered a form of situated practice, in which “human thought is not simply a combination of decontextualised facts. Instead, knowledge is principally situated in sociocultural settings and fundamentally contextualised in specific practices and domains” (Willis 2011, 24).

10.4.3. Support

In the questionnaires, students in both groups claimed that they were able to understand the majority of the things dealt with during the CLIL museum visit. In fact, teachers (Group 2) confirmed that, in their opinion, the visit was appropriate in terms of students' age, language, and content knowledge. We can thus claim that the activities devised as part of the CLIL museum visits supported Vygotsky's (1978) theory of Zone of proximal development, as they were challenging yet potentially within reach of students thanks to the appropriate scaffolding, support, and guidance (see Coyle, Hood, and Marsh 2010, 29). In fact, in the focus groups, the Marco Polo Art students claimed that they had felt both supported and actively engaged during the visit, thanks to both “expert” artefacts, glossary and worksheets, and the interaction with the museum educator, and their peers. In fact, as Ellis (2008, 538) claims “scaffolding is not dependent on the presence of an expert; it can also arise in interactions between learners”. Our study supports this claim, as students reported that through working in groups, they were able

to negotiate meanings and understanding, and to help each other to complete the tasks. They also felt that the group work contributed to the positive and relaxed atmosphere, as they used their collective resources to minimise frustration, and reduce task time (idem, 538).

10.5. Bridging the gap between CLIL at school and at the museum

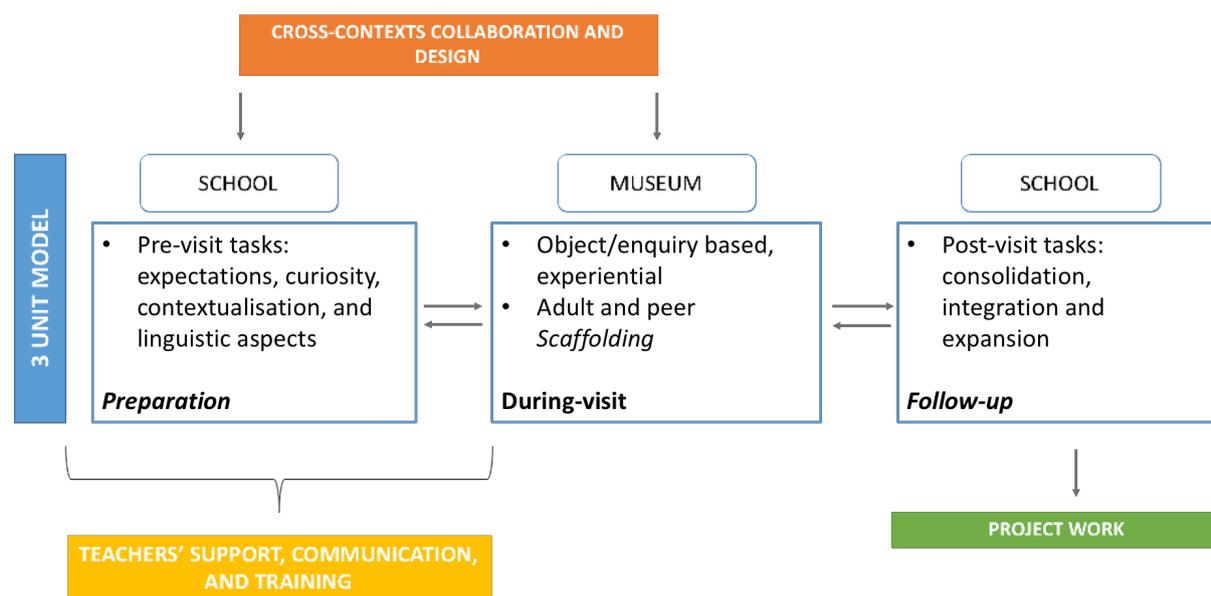
The first aim of our action research project entailed the design of a pedagogical framework to bridge the gap between content and language integrated learning both at school and at the museum with the objective of: (i) responding to the principles of museum-based learning and pedagogies, (ii) *scaffolding* and encouraging students' active and collaborative engagement with museum contents through English as a FL, and (iii) promoting the integration of the CLIL museum visit in the school curriculum. To fulfil this aim we analysed and discussed museum staff, teachers, students, and the Researcher-practitioner's evaluations, comparisons, and reflections as regards the design and implementation of both the CLIL museum programmes at the Civic Museums of Venice, and the school-museum integrated CLIL module on *Animal Classification*. However, we also used the findings as regards students' perceived learning outcomes and attitudes to better inform the framework. In so doing, we drew pedagogical conclusions, which we systematised in our pedagogical framework.

Indeed, we have already mentioned that the two aims, and the research questions used to explore them, had some overlapping areas, which we thought would contribute to paint a full, though explorative, picture of learning and teaching in non-formal CLIL projects across contexts.

10.5.1. The pedagogical framework

Our pedagogical framework is based on four dimensions: 1) cross-context collaboration and design, 2) teachers' support, communication, and training, 3) three unit model, and 4) authentic and participatory project work (see Figure 38).

Figure 38: Pedagogical framework to bridge the gap between CLIL at school and at the museum



1) Cross-contexts collaboration and design

What we learnt in our project is that bridging the gap between CLIL at school and at the museum requires the strong and reflective collaboration of teachers, museum staff, and the university. On the one hand, teachers and museums need to create a shared vision in which goals, expectations, and agendas are clearly communicated and integrated. In this scenario, teachers contribute the formal perspective of CLIL, and museums the non-formal one “into a joint working process where the two institutions learn from each other” (Xanthoudaki et al. 2007). On the other, the university can contribute by both providing training on the CLIL-based pedagogy, and through supporting participants’ reflection on their practice.

We also found that the aim in developing CLIL museum programmes should be for the museum to fulfil its transformative role within the 21st century society. Museums should reflect very hard on why CLIL is the right tool for them, and what they want to accomplish. After the definition of the aims, the museum staff needs to consider the following aspects:

- Which museum/rooms is/are more appropriate taking in consideration the basic principles at the basis of CLIL learning (see Paragraph 10.1.4.).
- What school audience should be the target (in line with museum vision/aims).

- What theme/topic will help fulfil the museum aims, but is also cognitively affordable to be dealt with in English and in a short time unit.
- What learning objectives integrate CLIL and museum based pedagogies.
- Methodology (see dimension n. 3).
- Who is going to be the CLIL museum educator.

After the definition of the aims of the school-museum integrated CLIL module, teachers need to carefully consider the following aspects:

- who is going to be involved in the Team Teaching.
- What subject/s will be chosen.
- What target (classes).
- Students' interests and career plans.
- Learning objectives (in line with the theme/topic of during-visit unit).
- Contents (in line with the theme/topic of during-visit unit).
- Methodology (see dimension n. 3).
- Assessment (see dimension n. 4).

2) Teachers' support, communication, and training

The problem with designing CLIL in the museum is that, unlike in the school context where the teacher develops a CLIL unit for a specific *real* class (see Serragiotto 2014a, 57), the museum needs to cater for a *standard* audience. Within this perspective, the museum should collaborate with teachers way before the museum visit. Teachers need to be supported in integrating the CLIL museum visit into the school curriculum through:

- museum-produced documentation in English.
- Links to resources on the theme/topic of the visit.
- Examples of pre- and post-visit activities.
- Lesson plan of the CLIL museum visit.
- Logistical and communication support.
- Teachers' INSET and/or training.

3) Three unit model

Pre-visit (school):

The pre-visit tasks need to be designed so as to:

- inform students on what is expected of them both in class (i.e. structure of the module) and at the museum.
- Contextualise students' learning by exploring the topic with them.
- Encourage students' curiosity as regards the museum visit.
- Activates students' subject-specific language (i.e. vocabulary and phrases).

During-visit (museum):

The *macro-structure* of the museum visit should follow four main stages:

- welcome stage: the museum educator welcomes students at the museum.
- Ice breaker: the museum educator presents a fun activity to lower students' affective filter and to bond with them emotionally, but also to understand their language level.
- Task: pre-task that introduces the topic and activates students' language and prior knowledge; task consisting of a series of activities (see *micro-structure*); post-task to recap on what was learnt during the visit.
- Final remarks: the museum educator praises students' performance and efforts.

The *micro-structure* of the museum visit should consist of activities that:

- promote close observation of and engagement with the museum objects.
- be enquiry-based.
- promote a balanced interrelationship between language and cognition.
- provide students with structured activities and worksheets.
- provide students with time to focus on what interests them, and to tour the museum galleries at their pace.
- support students' understanding through the use of *expert scaffolding* strategies, and glossary.
- encourage students' *peer scaffolding*, and interaction in English through using written and oral prompts.
- make a smart use of ICT tools.
- use questions about the objects (see Paragraph 3.7.1.1. and 3.7.1.2.) to adapt the standard tasks to the specific groups of students.

Post-visit (school)

The post-visit tasks need to be designed so as to consolidate, integrate, and expand students' learning resulting from the museum visit.

4) Project work

What we learnt in our research is that the best way to assess students' learning in and beyond the classroom is to ask them to work collaboratively on a project work. The project-work³⁵ should not only assesses students' language and content learning, but also capitalise on their cognitive and affective responses to the museum experience. A good idea might be that of brainstorming ideas with the museum staff on how students' learning artefacts could be exhibited and/or presented in the museum, so that the project is linked as much as possible to the real life experience (see Lasagabaster and Beloqui 2015; see also Paragraph 11.2.).

³⁵ In considering the multifaceted soul of CLIL learning, *Project work* has been found to be highly appropriate as a form of summative assessment in CLIL settings. According to Goodrich et al. (quoted in Lasagabaster and Beloqui 2015, 45), *Project work* is a “long-term, problem focused, and meaningful activities that bring together ideas and principles from different subject areas or disciplines (...) Its methodology is student-centered and boosts cooperativeness between students in order to develop a final task or project integrating all their skills”.

11. Conclusion

Situated within the field of language education, this research has sought to both shed light on the dynamics of content and language integrated learning beyond the classroom, and specifically in the museum context, and to provide a pedagogical framework to support the creation of school-museum integrated CLIL projects. Despite the diffusion of CLIL programmes in Italian museums, and in other European countries, there has not yet been significant study of the affordances of museums for FL learners, nor has there been empirical research on how to promote it, through integrating it in the school curriculum.

In this thesis, we have looked across the theories and findings related to three main fields of research: CLIL, formal/informal/non-formal language learning, and museum learning. In so doing, we have tried to highlight the overlaps among these fields so as to better explore the issue, which initiated our action research project: how can content and language integrated learning can be promoted and supported across the museum and the school context?.

In Paragraph 11.1., we will give a brief overview of the research, while in Paragraph 11.2, will summarise the main findings. Finally, in Paragraph 11.3., we will discuss the limitations of the current work, and in Paragraph 11.4. we will briefly present some of the areas that would be interesting to explore as a result of our investigation.

11.1. Overview of the research

This thesis aimed at: 1) defining a pedagogical framework that could help bridge the gap between CLIL at school and at the museum, and 2) exploring the impact that participating in a CLIL museum visit has on students' attitudes and perceived learning outcomes. Within these aims, we devised four research questions:

FIRST AIM

5. What aspects need to be taken into consideration when designing and implementing content and language integrated learning in the museum context?
6. What aspects need to be taken into consideration when integrating a CLIL museum visit into the upper secondary school curriculum?

SECOND AIM

7. What impact does participation in the CLIL museum visit have on students' attitudes?

8. What impact does participation in the CLIL museum visit have on students' perceived learning outcomes?

We decided that the best way to answer the abovementioned research questions was to design an action research project in collaboration with the Foundation Civic Museums of Venice, and the *Liceo artistico* Marco Polo, and we collected both quantitative and qualitative data through the means of eight different instruments, drawing from the experience of the museum staff, teachers, students, and Researcher-practitioner involved in the project.

11.2. Summary of the findings

As regards the first aim, our findings lead us to propose a four dimension framework to support teachers, and museum staff in creating cross-contexts CLIL projects. The first dimension (*Cross-context collaboration and design*) is concerned with two different stages. In the first stage, we suggest the establishment of a fruitful partnership, involving the school, the museum, and the university. This partnership is necessary to create a shared vision between the museum and the school/s, to understand each other's agenda, as well as to design aims that are both integrated, and representative of each institution's specific role. In this scenario, the role played by the university should be that of guiding participants' reflections, and providing training on the principles at the basis of CLIL pedagogies. In the second stage, museums and schools respectively design the during-visit unit (museum), and the pre- and post-visit units (schools). We need to think of the school units as highly dependent on the during-visit unit, as they need to capitalise upon the *museum experience* (during-visit). In this sense, they need to be designed consequently to the during-visit unit. In this stage, the museum staff also needs to identify the right person to deliver the CLIL museum programme/s. Thanks to our findings, we were able to outline the ideal profile of such educator. However, in the light of its complexity, the university could be involved in training the museum educators already working for the institution on the principles of CLIL-based pedagogy.

The second dimension (*Teachers' support, communication, and training*) is concerned with all the actions that the museum should put into place to support teachers' integration of the museum visit in the school curriculum (creation of pre- and post-visit activities), and logistical arrangement of the visit.

The third dimension looks at the Three-unit model more in detail. In accordance with the literature, our findings suggest that the pre-visit activities should focus on raising students' expectations and curiosity, contextualising their learning, and activating the language necessary to engage in the during-visit unit. On the other hand, the during-visit unit should focus on students' affective and cognitive engagement with the museum objects, through peer and adult *scaffolding*. It is important that students in this stage are encouraged to interact in English as much as possible, focusing on their speaking and listening skills. Finally, the post-visit unit should support students' consolidation, integration, and expansion of what they have learnt during the visit. The focus in this unit should be on reviewing and consolidating both the content and the language presented during the visit, but also on exploring the affective responses of the students to the experience.

The fourth dimension (*project work*) is concerned with students' collaborative and participatory production of a project work. The project work should aim at integrating students' learning during all three units, and capitalise on both the cognitive and affective gains of the museum visit. We have also established that owning the outcome of their learning and linking it to real life has a positive impact on students' self-perceived learning. Thus, what we suggest is to use the project work to turn students from simple attendants to the museum experience into active "cultural participants" (see Simon 2010). From this perspective, students could be involved in participating in the activities of the museum. We know for example of one museum, *Villa Carlotta* in Como (Italy), that has collaborated with upper secondary schools on a CLIL project aimed at training students to become tour guides for their tourist audience. In this scenario, the project work could also be part of the *Alternanza-scuola lavoro* (see Footnote 23), which is the other great novelty of the *Good School Reform*. Possibilities are endless, and they simply need to be explored.

As regards the second aim, our findings suggest that, when the right methodology is applied, museums have an incredible potential in promoting students' confidence and self-efficacy as English users. Students across the two groups showed very positive attitudes towards both the CLIL museum visit (Factor 1) and the use of English as a FL in an out-of-school context (Factor 2). When exploring students' quantitative results further through the means of students, teachers, and the Researcher-practitioner's qualitative data, we found that students' attitudes were the result of the interrelationship of four different dimensions: Museum context, Use of CLIL beyond the classroom, Learning environment, and Learners' interests, self-concept, and career plans. Students were fascinated by the opportunity of engaging with authentic and inspiring objects and specimens, and developed very strong personal reactions, which were

still vivid in their memory weeks after the visit. They also affirmed that the presence of the objects promoted a more authentic and fluid communication, as it was based on a highly meaningful experience, which they were able to share with both their peers and teachers. As regards the application of CLIL in the museum, our findings suggest that when CLIL gets outside of the classroom wall, the sociocultural dimension of learning increases dramatically. Students claimed that the CLIL museum visit felt close to a real life situation, as they were able to interact not only with their teachers and peers, but also with the museum educator, and museum staff (i.e. invigilators). As regards the methodology, the use of group work, and enquiry based activities, together with different scaffolding strategies resulted in very positive affective outcomes. Students commented that they felt proud, and satisfied of what they had accomplished, as the experience had been new and interesting, and up to their level/skills, while also involving a strong social aspect. Interestingly, some students also claimed that the visit had been an opportunity for them to get to know each other better, and increase their empathy towards one another. They themselves indicated that this was due to the fact that they felt challenged to complete the tasks through the FL and in a new context, thus requiring group effort and organisation. However, students in Group 1 showed less positive attitudes towards the use of English as a FL (Factor 2) than students in Group 2. We suggested that this was due to three independent variables - type of school, personal interests, and academic self-concept - which we had not considered in designing the questionnaires. What we found in the focus groups was that, on the one hand, students in Group 1 had a very low self-concept as language learners/users, and on the other hand, their career plans revolved around art related professions. In fact, students claimed it would have been much more interesting for them to participate in a cross-contexts module focused on art rather than on science, as it is in the former context that they would likely use English in their future career. Within this context, we were not able to establish the impact of the pre-visit activities on students' attitudes. However, we can hypothesise that students' interests, type of school, career plans, and self-concept may have played an even greater role on students' attitudes towards non-formal CLIL experiences than pre-visit classroom lessons.

We are inclined to exclude that the statistical difference between the two groups might have been caused by a detrimental effect of the pre-visit activities, because, overall, students regarded them as highly useful, both affectively and cognitively. In fact, despite claiming that some of the classroom tasks were either too boring or too complex, the majority of the students said that they had helped them in setting the right expectations, contextualising their learning, and providing them with the necessary vocabulary to engage in the museum tasks. In fact,

during the focus groups, they often autonomously identified the pre-visit activities as one of the tools that had supported their learning during the visit.

As regards students' perceived learning outcomes, we found that, while the majority of the students claimed that they had practiced listening and reading skills more than speaking and interacting with peers, they still perceived the museum experience as useful in promoting their oral production. According to Henry (2014, 100), while knowledge "is based on objective fact (...) beliefs are based on evaluation and judgement". Thus, there might be a number of reasons behind the somehow contradictory results, or it might just be that the students in the sample have so few opportunities to speak in English in a non-formal situation that they highly valued the smallest chance to do so (see Menegale 2011, 2013; Bellini 2018).

Our findings also suggest that learning in CLIL at the museum is different than learning at school inasmuch engaging with object supports students' deeper understanding of contents, while also promoting their vocabulary acquisition. In fact, students claimed that they were able to memorise and recall better the vocabulary learnt at the museum because of the combination of multisensorial inputs, but also because of its connection with a highly meaningful and contextualised experience.

Indeed, if we had to summarise in one word why we should involve students in CLIL projects *beyond* the classroom, we would certainly choose: *experience*. There is no other way we can give students the linguistic tools to succeed in the 21st century, unless we integrate in the classroom what they learn outside in the real world. Providing students with modules that involve an experiential component, while also offering cross-contexts *scaffolding*, might be just the right solution for schools to fulfil their goal: to prepare "students for the opportunities, responsibilities and experiences of adult life" (Mathewson-Mitchell 2007, 5). When analysing our data in *N-vivo*, we found that students' most frequent word was "new". A new experience, a new environment, a new way of learning, a new way of using the FL, and interacting with their sociocultural and physical world. A new classroom, *beyond* the classroom itself. We need to get rid of the obsolete idea that learning only happens in one context, the formal one, and think of *teaching* as an ecosystem, in which different contexts and actors are involved as *facilitators* of students' learning. According to Mattozzi (2010, 26; our translation), while, on the one hand, "everything starts at school", and "the school needs to evolve but it remains an unreplaceable tool of personal development as well as of social integration of every person (...) it is not sufficient on its own". In fact, "we are looking for more stimulating and productive learning contexts; among them we can certainly include museums, which are expected to carry part of the educational duties" (ibid.).

In our research, we have demonstrated the high potential that learning in CLIL in the museum holds for students' cognitive and affective growth. Indeed, we agree with Xanthoudaki (2015), when saying that museums are maybe not the solution to all problems, and certainly not to holistic FL education, but "to be able to change people's lives, museums 'must be put in the picture, not just in the frame' of the emerging pedagogies and the global challenges". Despite the fact that our research was exploratory in nature, we feel we have given a head start on investigating an area of inquiry that is still very much unexplored. But we can do much more (see *ibid*). As we said in the Forward to the current work, our research is just a "drop in the ocean" in the field of research in language education, but we do hope that this drop has generated wave circles to inspire future inquires and developments. It is our belief that the power of CLIL will not be fully exploited unless it bridges the gap between the classroom and the world *beyond*.

11.3. Limitations

We need to acknowledge that this research has several limitations. The first limitation regards the research design. In particular, we chose action research as our methodological approach, and we feel that we have not always been able to distinguish the "action" from the "research". On the one hand, our context of research has often changed throughout the three years, and this has sometimes led to unclarity as regards the aims and research questions of our investigation. This instability of the research context has also influenced the design of the research instruments, which findings resulted difficult to integrate, and triangulate during both the analysis and the discussion stages. On the other hand, the two aims we devised were complementary as well as distinct, and we often found ourselves unsure of which dimension/aspect to investigate as part of the first or second aim. Also, as with all projects that use action research as their approach, the context of our study was unique and our findings can not be generalised. However, we still feel we have contributed to the understanding of what happens when engaging with CLIL learning in the museum context, by also providing pedagogical guidelines for organisations interested in planning and designing cross-contexts CLIL projects. Finally, the amount of data collected, at different times and from different people, was difficult to manage, and concentrating on just one aspect could have maybe helped in reporting a more clear and focused investigation.

The second limitation regards students' questionnaires, and focus group. discussion First, our samples (Group 1 and 2) were not homogenous in terms of type of school attended and

museum visited. In fact, students in Group 1 only attended the *liceo artistico* visiting the science museum, while students in Group 2 attended *liceo linguistico, scientifico, and professionale* and visited both the science and the art museums. We suggest that in the future the independent variables “type of school” and “type of museum” should be included when considering the impact of pre-visit activities on students’ attitudes towards CLIL museum programmes, especially in the diversified upper secondary school system in Italy. As regards the focus groups, they were only organised with students in Group 1, leading to the over representation of these students’ perceptions towards the CLIL museum visit on *Animal Classification* in the data. Moreover, the conversation aids used to facilitate students’ discussion might have influenced students’ responses, by providing them with a set of ready-made perceptions. Also, the active involvement of the Researcher-practitioner in both the intervention at school and at the museum might have influenced students’ perceptions of both the museum visit, and the module.

The third limitation regards the pedagogical framework, which should be considered not as a finished product, but as a first stage in providing guidelines, which need further integration and validation.

11.4. Suggestions for Future research

Our investigation was exploratory and as such as led to the emergence of a wealth of questions. The first one relates to how museums in Italy are currently applying CLIL, and what impact this phenomenon is generating on teachers’ delivery of the school curriculum. A more throughout exploration across the different Italian regions might lead to more rounded conclusions as regards what we have previously called the “CLIL osmosis effect” in the introduction, and on its dynamics.

The second question relates to the profile of the CLIL museum educator. In the light of recent changes in the Italian political landscape, becoming a teacher in the public school is now even more difficult. What we are witnessing is the increase of a population that practices teaching in different contexts, drawing together skills and knowledges from their different “professions”. Thus, what the future holds for these new hybrid profiles, and how this is going to impact on the delivery and spread of CLIL across contexts is a challenging as well as exciting area of inquiry.

The third and last question relates to the impact on students of engaging in content and language integrated learning beyond the school classroom. Our research only focused on students’

perceptions, and not on their objective learning outcomes. However, through closely observing students in the gallery, we have come to the hypothesis that engaging in CLIL tasks in the museum has a positive impact on students' implicit language learning, and in promoting their exploratory talk. According to Clark (2013, 252):

“(...) talk in museums, between dyads, groups and the self, is oriented toward learning (...) people draw on their prior knowledge as a resource for discussion to aid their interpretation and meaning making about collections (...) single subject case study of language acquisition in an art museum showed that participating in discussion in museums lead to development in the discourse itself.”

While Clarke (idem) focuses on adult migrants' learning of English as an L2, our interest is in investigating how engaging with museum objects supports students' development of the CALP competence, and how they use their linguistic repertoire (L1 and L2) to do so.

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APPENDIX A

Activity books and worksheets of the CLIL museum programmes at the Civic museums of Venice, Teachers' supporting document

Ca' Rezzonico

Museum of XVIII century Venice

LOOKING FOR THE RIGHT WORDS @CA'REZZONICO

Upper secondary school



Content and Language Integrated Learning



BEFORE WE BEGIN...

Useful questions

How do you say... in English?

What does.... mean?

How do yo spell that?

Can you speak up, please?

Can you slow down, please?

Can you repeat that, please?



2

INTRODUCTION

If we say...

XVIII CENTURY

...what comes to your head? Write it in the lines above

3

Now read...

Ca' Rezzonico is a magnificent building, and was home to a rich, aristocratic family, dating back almost three hundred years ago (it was completed in 1756).

This family hired famous artists to celebrate their achievements and history, together with the glory of the aristocracy, through creating enormous paintings and frescoes with fantastic scenes, sculptures, sumptuous furnishings and so on...

However, the period when those artists were at work was a time of great changes.

Scientific progress and new ideas affected the way people thought about themselves and about reality. One of their questions was: "What can really enlighten a person?" and the answer was: "It is the intelligence, the ability to reason" If so, perhaps the social rank you were born into was not the only thing to define you. Maybe, if you could look around the world and manage to explain and reason upon your experiences, then your life could be different. This meant that people began to see things in a different way. It also meant that some painters became interested in depicting the "reality" around them.

The result was an interplay of different ways of seeing the world – something which becomes very clear when you explore the decorations and images within Ca' Rezzonico.

Any words you don't know? Ask your guide!

...and answer these questions in few words

What social rank did the Rezzonicos belong to? _____

What kind of artistic decorations did they like and commissioned?

Why did certain painters become interested in depicting "reality"?

4

"REAL" OR "FAKE"?



You are now in what was the Ballroom. Look around quickly (for a couple of seconds). How many columns can you see?

Now look around for another couple of seconds and write down how many windows you can see _____

Now take all the time you need to look a little more carefully. How many columns are actual columns and how many are painted images of columns?

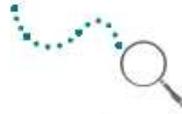
And what about the windows?

In fact, the way this ballroom was decorated was deliberately intended to make it look much bigger and more imposing, mixing real architectural features together with what are "fakes".

5

HEAVEN IN A SINGLE ROOM (Nuptial Allegory Room)

Look up
at the
ceiling.



Here the artist creates the illusion of a room open to the sky, and in the clouds you can see a **number of different figures**. That artist was Giambattista Tiepolo, the most famous Venetian painter of his day.

But how did one create works like this? Using a special technique: fresco painting.

1. What does that mean?

The name comes from the Italian word fresco, which means 'fresh'. These works were not painted on canvas or a wood panel but directly onto the wall. First, the surface was coated with a mixture of sand, marble dust and lime, all mashed together with water.

The artist then had to paint on this plaster whilst it was still **damp** – that is, **fresh** (fresco). Of course, he had to paint quickly, in order to finish before the surface dried out. Another restriction was that he could not change or paint over anything he did.

SO, IF YOU WANT TO MAKE A **FRESCO** WORK YOU MUST BE A _____
AND _____ **PAINTER**.

How did painters make sure the wall surface would remain "fresh" to work on? Of course, they had a few tricks. For example, they would only plaster that surface of the wall, which they intended to paint during the course of a single day. Thus, to paint a single fresco you needed a certain number of "**days**". We know that Tiepolo painted this ceiling fresco in **twelve** days.

6

2. Flying Horses and other Visionary Creations

When you look carefully at the sky as depicted by Giambattista Tiepolo, you can see that there are **real people** – such as the bride and groom, Ludovico and Faustina, shown in a magical chariot drawn by flying horses – but also that there are **other** figures which look like ordinary people but do not depict real individuals.



Can you identify these figures?

When you do, write their name in the boxes.

Now talk to your partners: is it easy to understand what the fresco is about? _____

Why? _____

In fact, those figures are intended to represent a particular **quality** or **virtue**. **Fame**, for example, is shown blowing a trumpet; **Truth** is holding a golden sun; **Worthiness** has a crown of laurel leaves (and a banner which bears the family crests of the bride and groom). There are also the Three **Graces**, beautiful young women here depicted lying on a cloud, and a number of little cherubs. These winged infants are sometimes depicted blindfolded because love is said to be "blind".

Any words you don't know? Ask your guide!

7

THE EYES TELL IT ALL (Pastel Room)



Look at the numerous small portraits in this room. They were made using **pastels**. These painters were very talented, don't you think? Can you believe some of the very best works here were done by a **woman artist**? Her name was **Rosalba Carriera** and she lived around the same time as Giambattista Tiepolo. She was so gifted that she became famous throughout Europe.

Talk to your partners and answer the following question:

Do you think that in those days it could be easy for a woman to become so famous?
In my opinion/ I think thatbecause.....

A person's **eyes** can tell you a lot about their **character**. And this was something Rosalba was well aware of.

Look at the five pair of eyes above, and identify them in the portraits in this room.

Write down the name of the person portrayed and then a single word which you think describes their character (for example, 'good-hearted', 'sly', 'boring', 'shifty'... **whatever you want**). 8

WHAT IS FLYING IN "YOUR" SKY (Throne Room)



Here is another light-filled sky/ceiling painted by Giambattista Tiepolo.

1. Do you recognise any of the figures that we saw in the previous Tiepolo's fresco?

2. Can you see a putto holding a book? What kind of book do you think it is?

Now listen to your guide and check if you were correct.

EVERYTHING IS TRUE TO LIFE 1... (Central Hall)



Look at the images above and then try to locate them in the different pictures hanging in this room. When you find them, study the entire paintings and write what you see.

These were all created in XVIII century, a little before the period of all the flying horses and winged figures we saw in the ceilings downstairs. Here, we see the artist looking at things in a rather different manner. Which way of painting do you think is more concerned with showing things as they really are?

Look at the labels and identify the name of the artist. Write it down here

10

EVERYTHING IS TRUE TO LIFE 2... (Longhi Room)

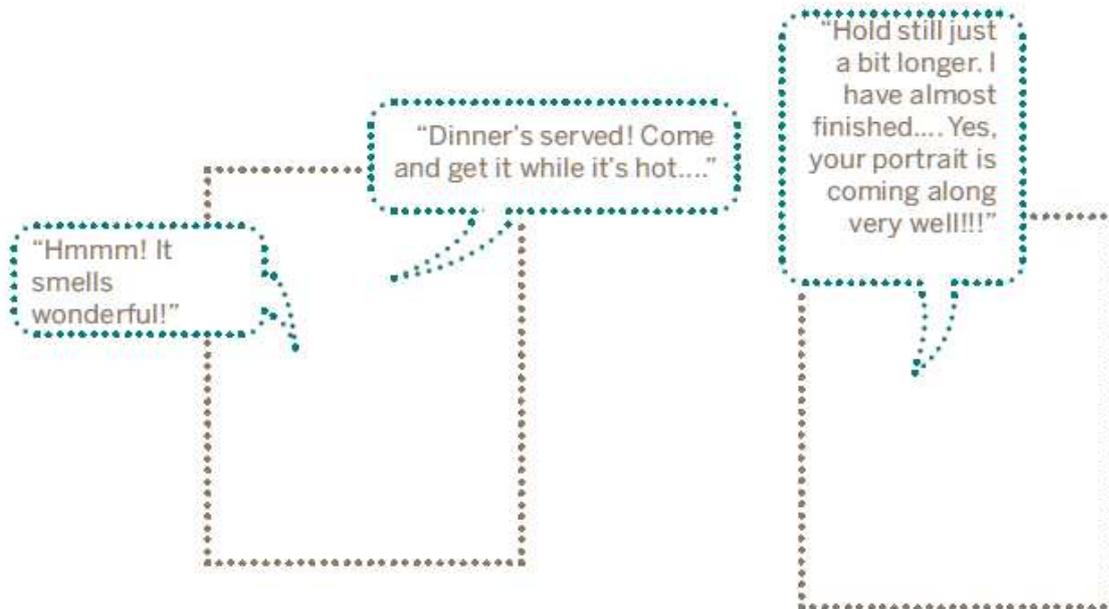
"Good morning, Madame. Did you sleep well? What a pleasure it is to see you today..."

"But have you ever seen anything like this animal????"

"Madame, there is a letter for you. I have brought it a long way... But please keep it away from that vicious little dog..."

Look at the pictures in this room and identify who might be saying these things. When you find them, write down the title of the work and try to describe it.

11



The artist who created these small pictures was called Pietro Longhi, and he too lived in the XVIII century. Many of his works depict aristocrats. However, he does not show them in golden chariots accompanied by classical gods. Instead, he paints them living their everyday life. But did he always paint aristocrats? What examples can you find of him choosing a different subject? _____

12

A NEW WORLD (Villa Zianigo)



Here, we are in a 'house within a house' because this area of the museum is laid out to re-create the interiors of a small house where Giandomenico Tiepolo, son of Giambattista Tiepolo, used to live.

What is strange about this large fresco? How are all the people arranged? _____ What do you think they are looking at? _____

What is beyond that sea? Can you see anything? _____

So what do you think "the New World" meant for Giandomenico Tiepolo?

- Something we know already
- Something we do not know yet

13

A WHOLE HOST OF PUNCHINELLOS (The Punchinello Room from Villa Zianigo)

Punchinello and Acrobats; Punchinello in love; Punchinello getting drunk; Punchinello on a swing. Find each one of these. **Who do you think they are**, all these figures?

- Real people
- Fictional Characters
- Neither completely real nor completely fictional



Perhaps Giandomenico Tiepolo was trying to find a new way of depicting the world around him, and that is why he ended up showing characters that are **all equal** and **all wearing the same mask**. Would you say his work is like – or very different to – that of

...his father
Giambattista?

- Yes
- No

...Pietro Longhi?

- Yes
- No



...Canaletto?

- Yes
- No



14

FB your visit...

If you had to post your visit at Ca' Rezzonico on Facebook,
what artwork would you choose to describe?



Do it for real!

put @MUVEeducation at the end of your post and it will appear on the official fb
page of the MUVE education!!



LANGUAGE TOOLS

Language to describe

The artwork represents.....
The subject of the artwork is...
On the right/left there is/are...
In the foreground/ background there is/ are
It was made/painted in(date or period), by (author)
The technique is (ex. fresco)

Language to make associations

It looks like...
It makes me think about/It reminds me of...

Language to make comparisons

They are different/ similar... because...

Language to give opinions/ for discussion

In my opinion, I think it is...(beautiful, horrible, sad, simple etc.)
I like/don't like it because...
It makes me feel... (happy, disgusted, sad, scared, surprised etc.)
I agree/disagree with you/him/her...because...

16

GLOSSARY OF ART WORDS

Allegory= allegoria ossia figurazione di un concetto o un fatto attraverso simboli e immagini divers.

Artwork= opera d'arte

Canvas= tela

Fresco= affresco

Furnishings= arredi

Genre painting=pittura di genere

Painter= pittore

Painting= dipinto

Pastel= pastello

Portrait= ritratto

Sculptor= scultore

Sculpture= scultura

Veduta= veduta

What other words did you learn?

Add them yourself below!

17

Edited by Monica da Cortà Fumei and Fabiana Fazzi

List of reproduced works from the collection of Ca' Rezzonico – Museum of Eighteenth-century Venice

Ca' Rezzonico, View of th Ballroom with fresco decorations by Gerolamo Mengozzi Colonna (panelling) and Giambattista Crosato (ceiling and the Rezzonico family crest), 1756, p.5

Giambattista Tiepolo, Nuptial Allegory, fresco, 1757 p. 7

Rosalba Carriera, details of pastel portraits of Sister Maria Caterina, Faustina Bordononi Hasse, Gentleman in Red (all 1730s), Giambattista Sartori and Lucietta Sartori (1737), p. 8

Giambattista Tiepolo, Allegory of Worthiness, fresco, 1757, with framing by Gerolamo Mengozzi Colonna, p. 9

Antonio Canal (Canaletto), details of View of Rio dei Mendicanti (c.1724-25 ca.) and The Grand Canal, looking from Ca' Balbi towards the Rialto Bridge (c. 1723), p.10

Giandomenico Tiepolo, Il Mondo Novo, relocated fresco, 1791, p. 13

Giandomenico Tiepolo, details of the relocated frescoes with Punchinello and the Acrobats, Punchinello goes a-courting, Punchinello getting drunk (1797), Punchinello on a Swing (1793), p. 14.

Cover: Matteo Rumor

Design: Silvia Catani

English translation: Jeremy Scott, Fabiana Fazzi



Learning dpt.

Monica da Cortà Fumei

with Claudia Calabresi, Cristina Gazzola, Chiara Miotto, Gabriele Paglia

Ca'Pesaro

International Gallery of Modern Art

LOOKING FOR THE RIGHT WORDS @CA'PESARO

Upper secondary school



Content and Language Integrated Learning



BEFORE WE BEGIN...

Useful questions

How do you say... in English?

What does.... mean?

How do yo spell that?

Can you speak up, please?

Can you slow down, please?

Can you repeat that, please?



FELICITA AND HER HOME: THE MUSEUM AND THE PALAZZO

Hello! My name is Felicita Bevilacqua la Masa. This building was my home. I left it to the City of Venice around 120 years ago: my aim was to make it **a place where talented, still unknown young artists could show their work**. The Venice Biennale was born just in that period, but these unknown artists were not invited, so I wanted to help them. Then exhibitions were held here by young artists who later became famous. But also paintings and sculpture that the City of Venice purchased after they had been seen at the Biennale were housed here.



It was in this way that, little by little, my home became a museum and its collection built up. Sometimes the works were donated by the artists themselves or by their families; sometimes people who had purchased the work for their own homes left them to the museum so that everyone could see them. After all, **isn't that the purpose of a museum?** To **conserve** works of art so that everyone gets to **see them**, to **learn** new things from them. When you have direct contact with works of art, you get to appreciate how strange and **wonderful** they can be.

2

I am very proud of this palazzo: it is such a magnificent building... Look at this entrance hall, with its columns, its double opening onto the Grand Canal and its statues, which look like those made by the ancient Romans, glancing upon us from above... But it was not my family that built it: we bought it in only in 1851. It had been built around **200 years earlier** for the **Pesaro family**. They were rich and ambitious (one of them, Giovanni Pesaro, became doge of Venice around the time the palazzo was built) and they wanted a **magnificent palace** that would show off their wealth and importance. This was why they asked the most famous architect in Venice at the time – **Baldassare Longhena** – to create their new home; he was the man who had designed the church of La Salute and Ca' Rezzonico (itself now another museum). A ceremonial staircase starts halfway down the left wall of this entrance hall. **Let's enter the museum floors from here!**



Answer these questions in few words

What was the countess's goal? _____

What is the purpose of a museum? _____

Why was this palazzo built? _____

Are there any words
you don't know?
Ask your guide!!!

3

LOOKING FOR THE "RIGHT" SCULPTURES (Room 1)

Let's look around!

If I say

"A massive sculpture that refers to a true story, with figures whose gestures and facial expressions communicate great feeling" _____

Or if I say

"Faces that seem to have been just captured as momentary impressions on wax" _____

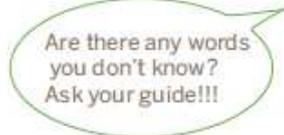
Or if I say

"A very smooth finish on figures. Expressive faces even if sometimes they have... no eyes"

What am I talking about?

These are descriptions of some of the works of art in this room. Try to identify which one they apply to. Write the name of the artist in the blank space alongside the description (it is given on the label).

Did you find the artists? Try to remember them: they are important characters in this "museum experience", and we will encounter them again...



4

Now complete the three short paragraphs below using

- the **works** that you have observed
- the information from the **labels** and the **descriptions** that you have read
- the **words** given below in capitals

REALISTIC MONUMENTAL FAMOUS

Auguste Rodin was born and lived in _____ . He was the most _____ sculptor in his country at the time. He created many _____ works.

His human figures are very _____ ; their gestures and facial expressions communicating their _____

.....
PARIS UNCONVENTIONAL GREATEST

Medardo Rosso was born in _____ in the year _____ .

He is now recognised as the _____ Italian sculptor of his day, even if at the time he was best known not in his native country but in France. In fact, Medardo would live for many years in _____

His sculpture is _____ , with figures that seem to have been "captured" in _____ .

.....
PORTRAITS SYMBOLIC POLISHED

Adolfo Wildt was born in _____ in the year _____ . He works the surface of his marble until it is very _____ . The faces are very _____ .

Sometimes the figures are _____ , sometimes they represent a _____ figure.

5

IMPRESSIONS (ROOM 2)

In the first room we encountered some sculptures by three different, great artists. But, in your opinion, what is a sculpture? That is, what is IMPORTANT in a sculpture?

We can find some sculptures in this room as well. They were made by one of the three artists we have already met. Which one? _____

Let's compare our idea of sculpture with that of the author of these works



Light being of the very essence of our existence, a work of art that is not concerned with light has no right to exist. Without light it must lack unity and spaciousness — it is bound to be small, paltry, wrongly conceived, based necessarily upon matter. Nothing in this world can detach itself from its surroundings, and our vision- our impression, if you prefer the term- can only be the result of mutual relations or values given by light, and must have the dominating tonality seized at a glance.

So, in Medardo Rosso opinion, the most important thing to be considered in sculpture is _____

The question of light was crucial not only for Medardo Rosso, but also for all the other artists of his time. In fact they all researched how to represent it, through reproducing the "impression" of light captured by our eyes.. Does the word "impression" ring a bell, when talking about art? 6

STATES OF MIND and PERSONAL CHARACTER (ROOM 3)

Do you know the story of Judith? You can find it here, but it's all jumbled up. Put the paragraphs in order.



- After 34 days of siege, the leaders of the city wanted to surrender, but Judith convinced them not to. She would take care of matters herself.

- She went out to the enemy camp and asked to speak to the general, pretending that she wanted to change sides.

- Who is Judith? A figure in the Bible. More than 2,500 years ago she lived in the city of Bethulia in Judea. She was a rich and independent woman, but then the Babylonian king Nebuchadnezzar ordered General Holofernes to lay siege to her city.

- As she was very beautiful, the general invited her to eat with him in his tent, where she managed to get him so drunk he fell asleep. At that point she cut off his head, saving her city.

Many artists have told the story of Judith. Look at the picture in this room and compare it with the one reproduced here (painted more than 400 years ago by an artist called Sandro Botticelli).

Look at the phrases in the table. Put a "B" next to the ones that refer to Botticelli's painting and a "K" to those that refer to Klimt's

We are outside in beautiful countryside	
Judith is alone	
We do not know where we are	
Judith is represented as a "real" woman, walking	
Judith is holding a sword and olive branch	
Judith's hands are clenched like claws	
Judith is shown with a handmaiden	
The painting is a flat image with lots of rich patterns	



Here are two very expressive faces. The author is another one we saw in the first room. He doesn't want to represent real people but characters, ways of being. Look at the work and describe an aspect of these faces that identifies

Proud Character _____

Gentle Soul _____

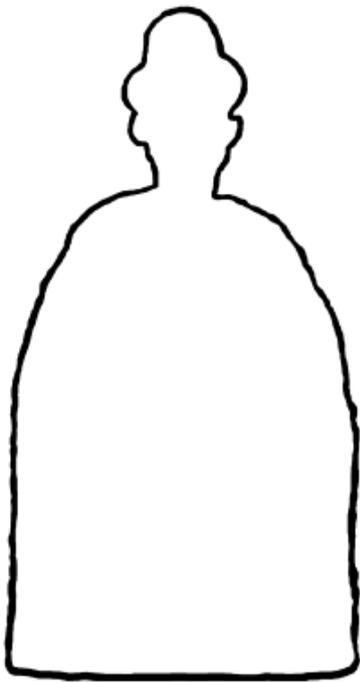
8

PEOPLE CHANGE OVER TIME (ROOMS 4 & 8)

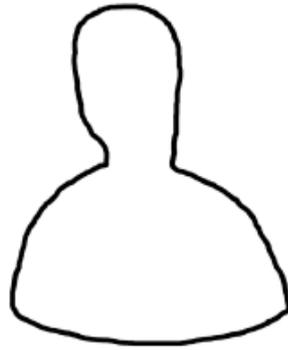
We said that Felicita Bevilacqua La Masa wanted to make Ca' Pesaro a place where talented, still unknown young artists could show their work. However, the City of Venice decided to house here artworks of famous artists purchased after they had been exhibited at the Biennale. The situation changed when, in 1907, a young man - just 23 years old - **Nino Barbantini**, became director of this museum. Like Felicita, he loved the work of many young artists and promoted them, organising every year an exhibition named *Bevilacqua La Masa exhibition at Ca' Pesaro*. Over the periods 1908-1914 and 1919-1924 these exhibitions attracted a lot of attention and visitors.

In Room 4 there are some works produced by those "young" artists from 100 years ago. One of them was **Arturo Martini**.

9



1 _____



2 _____

Look for the sculpture whose shape fits with outline number 1.

When you have found it, draw within the shape the many deep lines that you can see in the work itself.

Then write down title and date of the work.

If you then go into Room 8 you can see another work by Arturo Martini whose shape corresponds to outline 2.

Here, too, complete it with the (few) lines that you can see in the work then write down its title and date.

What happened to Arturo?

He changed his style over the period between the two sculptures...

Which of the two is more "realistic"? _____

Which do you like best? _____ Why? _____

You can do the same sort of experiment with the paintings of another artist, Felice Casorati, that you can find in rooms 4 and 9.





And what happened to Felicita's will? The Bevilacqua la Masa Foundation still exists, even if not in Ca' Pesaro. And, as in the past, it is an opportunity for young artists to show their work

FROM FORM TO COLOUR (ROOM 10)



Emil Nolde, the artist who painted this picture, said:

"I want my work to grow out of the material of paint itself, just like in nature plants grow out of the earth".

Look for the painting in this room. What do you think Nolde was most interested in?

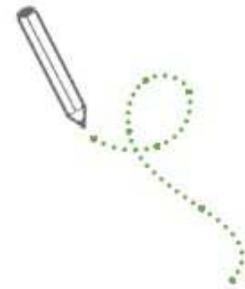
- The shapes of plants and flowers
- The colour of plants and flowers

12

"ABSTRACT" ART (ROOM 11)

- MAKE A POINT

- NOW DRAW A LINE



Which one required a SINGLE ACTION, and which one to make a much longer and more complex MOVEMENT?

Look at this painting in the room
How many movements
can you see?



13

Why did we do this?

Because Vassily Kandinsky, the author of this painting believed that geometrical forms, made using lines and points, were a sort of movement, capable of communicating emotions of different types – just like some colours are warm and others are cold. Kandinsky said a single point existed “in itself”, while lines were an element that created dynamic tension, expressing movement.

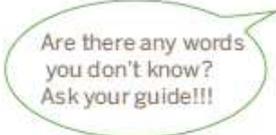
Comprehension...

What do geometrical forms produce for Kandinsky? _____
 Read the label: what does this painting “represent”? _____

We have often used the word “realistic” in talking about the works we have seen till now, some being more realistic, some less so. But around 120 years ago artists began to think that art did not necessarily have to imitate reality. Among these artists, Vassily Kandinsky was one of those who thought most deeply about what this change meant. He wanted to create an art in which lines and colours had a life of their own; could communicate emotions directly without having to represent something.

Do you think he was successful? _____ Why? _____

What emotion does this painting communicate to you?



Kandinsky also studied the relationship between music and colours. For him, each colour and each sound had its specific quality and triggered specific sensations. One composer whose music he felt was very close to his painting was Arnold Schoenberg. Listen to this piece of music (Quartet for Strings, op. 10 and Three Short Pieces for Pianoforte, op. 11). For Kandinsky, even the sound of different instruments was linked to different colours.

Try to associate a particular instrument with a particular colour and feeling.
 Then compare your results with Kandinsky's associations

Instrument	Colour	Feeling
Trumpet		
Flute		
Violin		
Double bass		
Bassoon		



Kandinsky would fill in this table in this way

Instrument	Colour	Feeling
Trumpet		Joy in life
Flute		Cold
Violin		Well-being
Double bass		Deep calm
Bassoon		Solitude, mystery



PAINTING WITH GESTURES (ROOM 13)



Link the three pictures in this room with the following descriptions.
Or write one of your own.

A graphic line through space,
obtained by twisting and bending
a single piece of metal



Many layers of paint which are
then scratched to reveal the
different layers beneath



Small geometric forms arranged
so that they seem to give the
effect of reflected light

16

THE PARTISAN WOMAN (ROOM 14)



One brilliantly coloured woman seems to stride across this room.

Just like the partisans who fought against dictatorship, this statue has had an adventurous life. The story is told below.

Can you complete it with the words given in capitals?

MAJOLICA MONUMENT BOMB RED
DESTROYED PLANNED FIRST

The statue was intended to be a _____ to be placed in the open air (in the Castello Gardens, near the Biennale).

Leoncillo made this sculpture in coloured _____, but ended up keeping it in his studio. Then he made another statue with a neckerchief that was not in red colour. That work was exhibited in the Gardens, as had been _____.

However, a few years later, it was _____ by a _____ placed by neofascists.

At that point the Ca' Pesaro Museum acquired from the artist the _____ version of the work.

So we can all still commemorate these courageous and proud women.

17

FB YOUR VISIT...



If you had to post your visit at Ca' Pesaro on Facebook, what artwork would you choose to describe? _____

Do it for real!: put @MUVEeducation at the end of your post and it will appear on the official fb page of the MUVE education!!



LANGUAGE TOOLS

Language to describe

The artwork represents.....

The subject of the artwork is...

On the right/left there is/are...

In the foreground/ background there is/ are

It was made/painted in(date or period), by (author)

The technique is (ex. oil on canvas, or, if a sculpture, marble, plaster, wax...).

Language to make associations

It looks like...

It makes me think about/It reminds me of...

Language to make comparisons

They are different/ similar... because...

Language to give opinions/ for discussion

In my opinion, I think it is...(beautiful, horrible, sad, simple etc.)

I like/don't like it because...

It makes me feel... (happy, disgusted, sad, scared, surprised etc.)

I agree/disagree with you/him/her...because...

GLOSSARY OF ART WORDS

Artwork= opera d'arte

Canvas= tela

Marble= marmo

Painter= pittore

Painting= dipinto

Plaster= gesso

Portrait= ritratto

Sculptor= scultore

Sculpture= scultura

Wax= cera

What other words did you learn?

Add them yourself below!

18

Edited by Monica da Cortà Fumei and Fabiana Fazzi.

list of the works reproduced and included in the collection of the
Galleria Internazionale d'Arte Moderna di Ca' Pesaro, unless otherwise stated

Urbano Bottasso (Venice, 1868? - 1917?), Felicità Bevilacqua La Masa, detail, 1904, marble, p. 2

Sandro Botticelli (Florence, 1445 - 1510), The Return of Judith to Bethulia, c.1472., tempera on wood panel, Florence, Galleria degli Uffizi, p. 7

Gustav Klimt (Austria, Baumgarten 1862 - Vienna, 1918), Judith II (Salomè), 1909, oil on canvas, p. 7

Adolfo Wildt (Milan, 1868 - 1931), Carattere fiero anima gentile, 1912, gilded marble, p. 8

Felice Casorati (Novara, 1883 - Turin, 1963), Le signorine, 1912, and Ragazze a Nervi, 1926, oil on canvas, p. 11

Emile Nolde (Germany, Nolde 1867 - Seebüll Neuwerk, 1956), Plants in Flower, 1909, oil on canvas, p. 12

Vasilij Vasil'evič Kandinskij (Moscow, Russia 1866 - Neuilly, France 1944), White Zig Zag, 1922, oil on canvas, p. 13 Mario

Deluigi (Treviso, 1901 - Venice, 1978), G.G. 105, 1961, Tempera on canvas, p. 16

Eduardo Chillida (Spain, San Sebastián 1924 - 2002), Temblor n.° 3, 1957, bronze, p. 16

Tancredi Parmeggiani (Feltre, 1927 - Rome, 1964), Soggiorno a Venezia, 1955, oil on fibreboard, p. 16

Leoncillo Leonardi (Spoleto, 1915 - Rome, 1968), The Venetian Partisan Woman, 1954 - 1955, polychrome maiolica, p. 17.

The quote on page 6 is from Medardo Rosso, "Impressionism in sculpture, an explanation", in the Daily Mail, October 17, 1907

Cover: Matteo Rumor

Design: Silvia Catani

English translation: Jeremy Scott, Fabiana Fazzi



Learning dpt.

Monica da Cortà Fumei

with Claudia Calabresi, Cristina Gazzola, Chiara Miotto, Gabriele Paglia

OBSERVE: ANALOGOUS AND HOMOLOGOUS STRUCTURES

❖ Observe the specimens, listen and complete the sentences with the missing words in the box below.

- A** _____ (sperm whale) - room 1. **Look up and find its scientific name.**
 Cetaceans are the _____ that have best adapted to aquatic life. The forelimbs of the sperm whale are modified into _____, which allow it to control both stability and swimming direction.
- C** _____ (ichthyosaur) - room 5. **Find it and write its scientific name.**
 Ichthyosaurs are extinct _____ that had a hydrodynamic shape similar to that of a fish. Their flippers were supported by the bones of their _____.
- G** **Fishes** - room 12. **In which cabinet are they?** _____.
 In _____, fins differ by shape and position. They are made of bony or cartilaginous rays and allow fishes to control both stability and _____ direction.
- N** **Insects**- room 17. **Find an insect and write its scientific name.** _____.
 _____ are the only flying animals that have four _____. They are specialised structures, which differ by shape and dimension depending on the group they belong to.
- O** **Bats** - room 17. **Find a bat and write its scientific name.** _____.
 Bats are _____ mammals. The fingers of their forelimbs are very long and support their wings made of _____.
- P** **Dimorphodon sp.** (pterosaur) - room 17. **Find it and write its scientific name.**
 Flying reptiles had a big but light _____. Their wings were made of skin and were supported by only one _____ of the forelimb.

fishes, flippers, flying, limbs, cranium, insects, mammals, finger, wings, skin, reptiles, swimming.

❖ Colour with the same colour the corresponding structures in the forelimb.

<p>F Human skeleton - room 11</p>	<p>B Skeleton of <i>Ouranosaurus nigeriensis</i> (dinosaur) – room 2</p>
<p>I Bird skeleton - room 12</p>	<p>S Skeleton of <i>Balaenoptera physalus</i> (fin whale) – room 22</p>

RECAP: ANALOGOUS AND HOMOLOGOUS STRUCTURES

- ❖ Complete the phrases in the boxes and match them with the specimens observed in the museum (first exercise of worksheet 1).

Animals that _____ and have a light body and load bearing structures (wings).

Animals that _____ and have developed hydrodynamic shapes and pushing structures.

Sperm whale

Bats

Fishes

Insects

Pterosaur

Ichthyosaur

- ❖ Complete the sentence using the terms *different*, *same*, *similar*.

ANALOGOUS STRUCTURES

_____ structures that are present in _____ groups but have evolved independently as a response to the _____ adaptive stimuli.

- ❖ Compare the specimens observed in the museum (second exercise of worksheet n. 1) and complete the sentence.

The forelimb of a _____, the pectoral fin of a _____, the wing of a _____ and the forelimb of a _____ are all made of the same bony parts, like all other tetrapods: their common ancestor had a forelimb, which consisted of a humerus, ulna, carpal, metacarpal and phalanges.

- ❖ Now, observe these new specimens and find the intruder.



Dung beetle
Scarabaeus semipunctatus



Green toad
Bufotes viridis



Red squirrel
Sciurus vulgaris

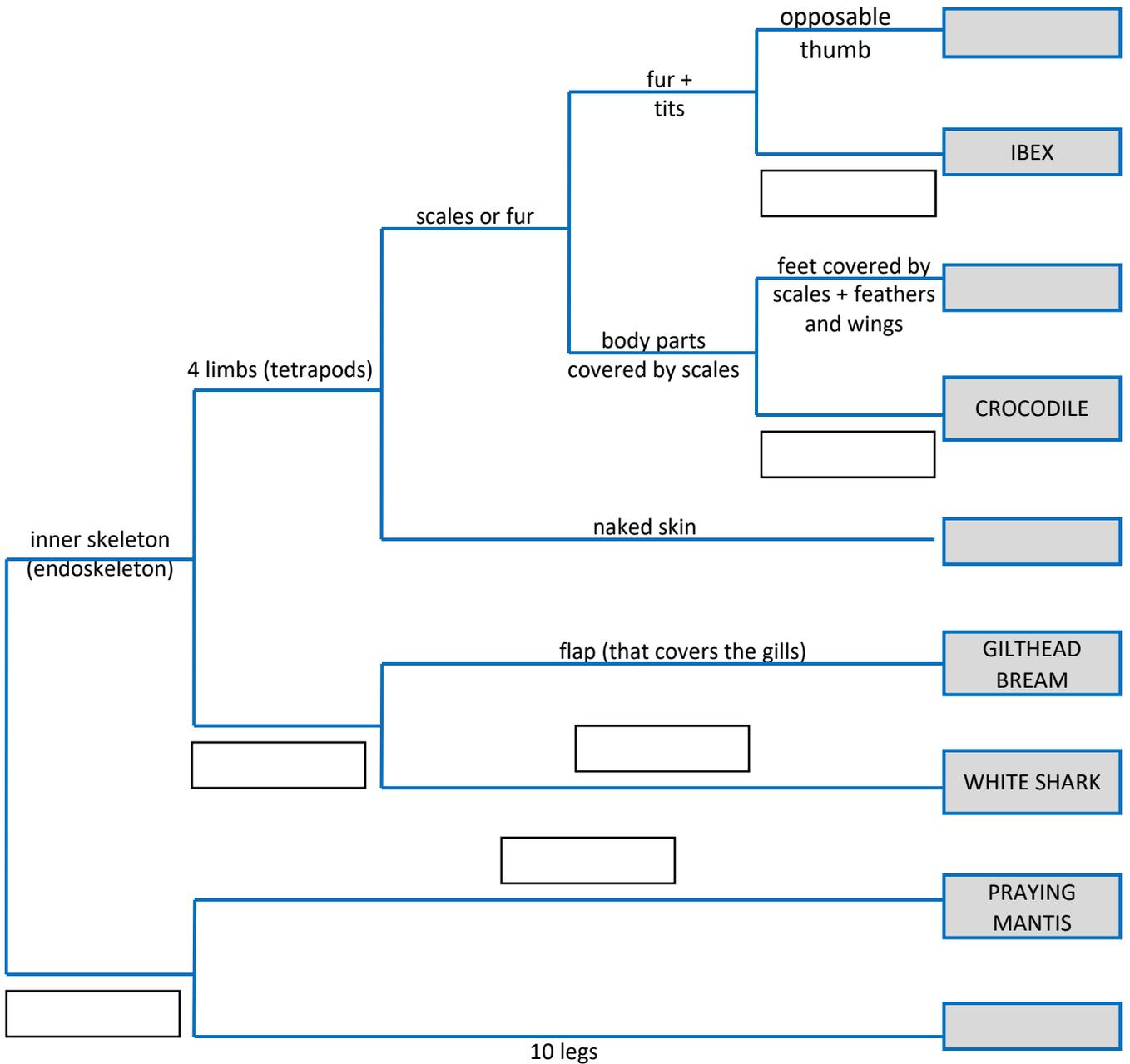
- ❖ Complete the sentence using the terms *different* and *same*.

HOMOLOGOUS STRUCTURES

_____ structures inherited from a common ancestor, which can have _____ shapes in _____ groups, as a result of functional adaptation.

RECAP: CLASSIFICATION

❖ Using the table on worksheet n.2, complete the *cladogram* inserting the characteristics in the white boxes and the specimens in the grey boxes



AN EXAMPLE OF CLASSIFICATION

Taking into consideration the homologous structures present in a group of animals, it is possible to create a system of classification through a diagram (cladogram) that highlights the degree of kinship of the different organisms, how different organisms are related, and the characteristics of their common ancestors.

LOOKING FOR THE RIGHT WORDS – Ca' Rezzonico

(Scuola secondaria di II grado)

Sede: Ca' Rezzonico

Durata: 2 ore

Contenuti:

Percorso storico/artistico su aspetti peculiari e diversi del XVIII secolo. Verranno presi in considerazione sia tecniche ed esiti artistici sia le complesse articolazioni storiche del periodo.

Obiettivi disciplinari:

Gli studenti saranno incoraggiati a:

- contestualizzare a livello interdisciplinare vari aspetti del periodo trattato
- osservare in maniera consapevole opere d'arte e tecniche espressive
- riconoscere le differenti poetiche di artisti come Giambattista e Giandomenico Tiepolo, Rosalba Carriera, Canaletto e Pietro Longhi
- approcciarsi all'arte in maniera attiva e critica

Obiettivi linguistici

Gli studenti saranno incoraggiati a:

- usare vocabolario e lingua specifici dell'arte (es. *fresco, painting, it was made/painting in...by*)
- usare le quattro abilità (parlare, ascoltare, scrivere, leggere) in inglese in relazione all'arte e alla storia del XVIII secolo
- interagire tra di loro e con la guida in inglese in un contesto non scolastico

Obiettivi trasversali:

Gli studenti saranno in grado di:

- lavorare in gruppo condividendo idee e ipotesi
- orientarsi all'interno di Ca' Rezzonico
- praticare abilità di pensiero, di pensiero critico e problem solving

Metodologia e descrizione

Fase1 – presentazione e sciogli ghiaccio

- presentazione della guida attraverso uno sciogli ghiaccio (es. Lie Detector)
- presentazione dell'organizzazione didattica e metodologica del percorso attivo (lavoro in piccoli gruppi e interazione in Inglese con la guida e tra studenti, a seconda del livello linguistico) e consegna dei materiali

Fase 2 – introduzione a Ca' Rezzonico e al XVIII secolo

- attivazione delle conoscenze pregresse sul XVIII secolo
- comprensione guidata di un testo in piccoli gruppi
- feedback in plenaria e introduzione partecipata a Ca' Rezzonico e al XVIII secolo

Fase 3 – Nelle sale del museo

- attività di gruppo e lezione partecipata alla scoperta di opere di Ca' Rezzonico particolarmente significative e adatte rispetto agli obiettivi didattici dell'attività
- osservazione, descrizione e interpretazione critica di alcuni tra i principali aspetti delle opere d'arte prese in considerazione attraverso lo svolgimento di attività di gruppo e discussione partecipata con la guida

Fase 4-chiusura dei lavori

LOOKING FOR THE RIGHT WORDS – Ca' Pesaro

(Scuola secondaria di II grado)

Sede: Ca' Pesaro

Durata: 2 ore

Contenuti:

Percorso didattico finalizzato alla comprensione del passaggio tra figurazione e astrazione, attraverso alcuni capolavori otto-novecenteschi presenti in museo. Saranno inoltre trattate in modo interattivo le diverse vicende che hanno condotto alla formazione delle collezioni e l'utilizzo di Ca' Pesaro come spazio museale.

Obiettivi disciplinari:

Gli studenti saranno incoraggiati a:

- riconoscere nelle articolate vicende artistiche del '900 alcuni dei passaggi fondamentali tra figurazione e astrazione attraverso l'analisi, la descrizione e l'interpretazione di alcune opere importanti del museo
- affrontare il tema del ruolo del museo e delle vicende attraverso le quali si giunge alla formazione di un museo
- affrontare il tema del ruolo di mecenate attraverso la motivazione delle scelte operate, nel caso di Ca' Pesaro, dalla sua donatrice, Felicita Bevilacqua La Masa

Obiettivi linguistici

Gli studenti saranno in grado di:

- usare e potenziare vocabolario e lingua specifici dell'arte (es. *painting, sculpture, the artwork makes me think about..*)
- usare le quattro abilità (parlare, ascoltare, scrivere, leggere) in inglese in relazione all'arte del '900
- interagire tra di loro e con la guida in inglese in un contesto non scolastico

Obiettivi trasversali:

Gli studenti saranno in grado di:

- lavorare in gruppo condividendo idee e ipotesi
- approcciarsi all'arte in maniera attiva e critica

Metodologia e descrizione

Fase 1 – presentazione e sciogli ghiaccio

- presentazione della guida attraverso uno sciogli ghiaccio (es. Lie Detector)
- presentazione dell'organizzazione didattica/metodologica del percorso attivo (lavoro in piccoli gruppi e interazione in Inglese con la guida e tra gli studenti, a seconda del livello linguistico) e consegna dei materiali

Fase 2 – introduzione alla storia di Ca' Pesaro ossia al passaggio del palazzo da edificio patrizio a sede museale d'arte moderna e al ruolo giocato da Felicita Bevilacqua La Masa

- comprensione guidata di un testo in piccoli gruppi
- feedback in plenaria sui temi obiettivo di questa fase

Fase 3 – nelle sale del museo

- attività di gruppo e lezione partecipata alla scoperta di opere di Ca' Pesaro particolarmente significative e adatte rispetto agli obiettivi didattici dell'attività
- osservazione, analisi, descrizione e interpretazione critica delle opere attraverso lo svolgimento di attività di gruppo e discussione partecipata con la guida

Fase 4-chiusura dei lavori

LOOKING FOR THE RIGHT WORDS – Museo di Storia Naturale

Sede: Museo di Storia Naturale

Durata: 2 ore

Contenuti:

Percorso didattico sulla classificazione degli animali che permette di comprendere il significato della classificazione filogenetica attraverso l'approfondimento dei concetti di analogia e omologia.

Obiettivi disciplinari:

- usare correttamente le logiche fondamentali del metodo scientifico
- capire i concetti di omologia e analogia attraverso l'osservazione dei reperti
- individuare le caratteristiche morfologiche tipiche di ogni gruppo animale
- creare un cladogramma sulla base di omologie

Obiettivi linguistici

- praticare il vocabolario specialistico relativo alla classificazione degli animali (*fur, fin, leg..*)
- promuovere le quattro abilità (parlare, ascoltare, scrivere, leggere) in inglese in relazione al tema della classificazione
- incoraggiare gli studenti ad interagire tra di loro e con la guida in inglese in un contesto autentico

Obiettivi trasversali:

- lavorare in gruppo per stimolare collaborazione, discussione, formulazione di ipotesi
- stimolare le capacità di osservazione
- verificare la capacità di orientarsi attraverso l'utilizzo di una mappa

Metodologia e descrizione

Fase1 - motivazione

- suddivisione in piccoli gruppi, consegna delle istruzioni e dei materiali
- consegna del vocabolario figurato
- esplorazione delle frasi utili per gestire l'interazione con l'operatore e tra di loro in inglese

Fase 2 - lavoro di gruppo in autonomia (osservazione)

- utilizzo della mappa del Museo per l'individuazione di 19 reperti ubicati lungo il percorso di visita
- osservazione guidata dei reperti
- compilazione di schede di osservazione che mirano all'identificazione e alla descrizione delle strutture analoghe e omologhe attraverso attività di ascolto, testi da riempire e tabelle

Fase 3 – lezione partecipata (rielaborazione)

- riflessione guidata sui concetti di analogia e omologia alla luce dei reperti osservati e delle attività svolte precedentemente
- simulazione di classificazione filogenetica di nove animali attraverso la costruzione di un cladogramma che utilizza le informazioni inserite nella tabella
- discussione finale nella quale si riflette su come il tema della classificazione biologica offra uno spunto per affrontare un aspetto fondamentale delle scienze naturali quale l'evoluzione

Appendix B

Worksheets of the school-integrated CLIL module on Animal Classification (*Liceo Artistico Marco Polo*)

LESSON 1

Worksheet 1

- *Now read the text with your mate underling expressions or words you don't know (10 minutes)*

Theories of Evolution



A fossil is any evidence of a plant or animal that lived ages ago.

Evolution forms a major part of GCSE Biology. Not only will students look at Charles Darwin's theory of evolution by natural selection, they will also examine the evidence supporting it and take a look at some shorter-lived theories, like that of evolution's earlier proponent, Jean-Baptiste Lamarck.

The best known of the evolution theories is Charles Darwin's theory of evolution by natural selection. It states that all species of living organisms have evolved from simpler life forms. Variation within populations leads to different adaptations, some of which may give an organism a survival advantage. Examples of such variation could be longer claws, which would make an animal a more efficient hunter, or larger leaves, which would mean that a plant would get more light and shade out its competitors. Organisms with these adaptations are more likely to survive longer and will therefore pass on their successful characteristics to the next and

subsequent generations. Those organisms who are less well adapted are more likely to die and can even become extinct.

Text books often give the impression that Darwin came up with his natural selection theory after he had visited the Galapagos Islands during a sea voyage on a ship called the Beagle. This is only partly true and slightly misleading. He took over 20 years to come up with the theory and his observations during the month or so that he was at the Galapagos Islands formed only a small part of the story. The turning point came after he read an essay about human population. The population of Great Britain in the mid 19th Century was increasing rapidly, particularly in cities. The essay claimed that the trend would continue up to the point where there would not be enough food to go round, then the population would decline rapidly as people starved. He realised that the same would apply in the natural world which would only allow the 'survival of the fittest'.

Darwin was very reluctant to publish his theory because it contradicted the teachings and beliefs of religion - the 'Church' was very powerful at the time. Despite this, he was eventually persuaded to publish his book but was then ridiculed by both the press and fellow scientists. There just wasn't enough evidence for evolution and besides, how could we possibly have evolved from apes? We now call the 'apes' primates and there is plenty of evidence to show that all organisms have undergone evolution. You need to be aware that this wasn't the first or only theory of evolution. In the exam, you could be asked about these others.

➤ *See if your knowledge of evolution theories is evolved enough to get 10 out of 10 in this quiz. (15 minutes)*

1. Evidence for evolution comes from where?

- a) Experiments
- b) Fossils
- c) Genetic engineering
- d) Cloning

2. Evolution leads to the formation of which of the following?

- a) New ideas
- b) New species
- c) New theories
- d) New morals

3. What does evolution mean?

- a) Gradual change

- b) Gradual reproduction
- c) Gradual excretion
- d) Gradual knowledge

4. What is a fossil?

- a) A very old person
- b) Any evidence of a plant or animal that lived ages ago
- c) Any very old sedimentary rock
- d) A skeleton of an animal

5. In natural selection, the individuals which survive are described as being which of the following?

- a) Better trained
- b) Better adapted
- c) Better suited
- d) Better known

6. The organisms which survive can then breed and pass on what?

- a) Their jeans
- b) Their pants
- c) Their alleles
- d) Their trousers

7. What did Lamarck's theory of evolution state?

- a) That life evolved from apes
- b) That the use of a feature allowed it to develop and be passed on and vice-versa
- c) That evolution caused changes to skip a generation
- d) That features could arise and then be lost

8. Darwin's theory was not accepted at first because of objections by which organisation?

- a) The Government
- b) The People
- c) The Church
- d) The Police

9. Variation which leads to new forms of organisms is caused by what?

- a) Feeding
- b) Excretion

- c) Starvation
- d) Mutation

10. Why are there gaps in the fossil record?

- a) Many organisms do not survive
- b) Not all organisms have been preserved
- c) Many fossils have been destroyed by war
- d) Fossils have been stolen from museums

LESSON 2

Worksheet 1

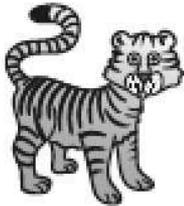
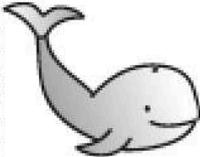
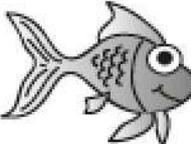
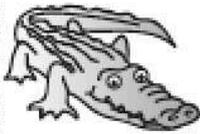
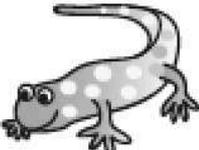
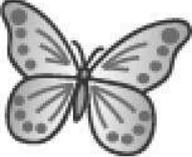
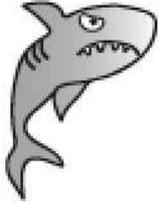
Amazing world of animals
by Carol Read

one stop cil

Lesson 1: How to classify animals

Worksheet 1 Animal picture cards

YOUNG LEARNERS WORKSHEET 1

 a tiger	 a frog	 a spider	 a parrot
 a whale	 a snake	 an octopus	 a goldfish
 a crocodile	 a newt	 a butterfly	 a ladybird
 a scorpion	 a snail	 an owl	 a shark

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Worksheet 2

1) Language to describe animals

Question	Do they have...?/ Does it have..?
Answer	Yes, they do/No, they don't/Yes, it does/No, it doesn't
Description	They have/it has... (<i>feathers, scales, six legs etc.</i>)

2) Language to classify/group animals

-We've put....in one group and....in the other group

LESSON 3

Worksheet 1

Complete the table by putting an “x” if the animals have the characteristics in the first column. Help yourself with the links provided below:

<http://www.sciencekids.co.nz/animals.html>

	tiger	frog	spider	parrot	whale	snake	octopus	goldfish	crocodile	newt	butterfly	ladybird	scorpion	snale	owl	shark
They have fur or body hair																
Do they have feathers?																
Do they have wings?																
Do they have fins and scales?																
Do they have limbs?																
Do they lay eggs in water?																
do they lay eggs on land?																
Do they breath with lungs?																
Do they breath with lungs and gills?																
Do they have an exoskeleton (outer skeleton)?																
Do they have an en endoskeleton (inner skeleton)?																

Worksheet 2

1-Read the first paragraph of the text below and, with your partner, try to guess the topic (3 min):

TOPIC: _____

The first great thinker who dealt with the problem of classification was **Aristotle** (IV B.C.). Greeks had constant contact with the sea and marine life, and Aristotle seems to have studied it intensively during his stay on the island of Lesbos. In his writings, he described a large number of natural groups, and, although he ranked them from simple to complex, his order was not an evolutionary one. He was far ahead of his time, however, in separating invertebrate animals like insects into different groups and was aware that whales, dolphins, and porpoises had mammalian characters and were not fish. Lacking the microscope, he could not, of course, deal with the minute forms of life.

Only in the 17th century the english naturalist and botanist **John Ray** gave a significant advancement in taxonomy: In 1682 he had published a *Methodus Plantarum Nova*, his contribution to classification, which insisted on the taxonomic importance of the distinction

between monocotyledons and dicotyledons, plants whose seeds germinate with one leaf and those with two, respectively. Ray's enduring legacy to botany was the establishment of species as the ultimate unit of taxonomy. Instead of a single feature, he attempted to base his systems of classification on all the structural characteristics, including internal anatomy. By insisting on the importance of lungs and cardiac structure, he effectively established the class of mammals, and he divided insects according to the presence or absence of metamorphoses. Before **Carl Linnaeus** developed his system of binomial nomenclature, Ray realized that naturalists needed a naming system that transcended language. It was Ray who proposed naming species in Latin. He also developed a general scheme for plant classification, but unlike the Linnaean system, which concentrated on reproductive organs, Ray's was based on overall form and structure. His names, however, were very long descriptions telling everything about the plant: for example, a common plant known as "the common buttercup" was named "*ranunculus calycibus, retroflexus, pedunculis falcatis, caule erecto, folis compositis*", meaning "the buttercup with bent-back sepals, curved flower stalks, erect stems and compound leaves".



2- Now, read the whole text again, divide it into paragraphs and for each paragraph highlight the main information (5 min)

3- Now, answer the quiz! (15 min)

- 1. Who was the first thinker who dealt with the nomenclature issue?**
 - a. John Ray
 - b. Carl Linnaeus
 - c. Aristotle
 - d. Charles Darwin

- 2. What did Aristotle describe first?**
 - a. Fossils
 - b. Natural groups
 - c. The theory of evolution
 - d. Amphibians

- 3. What was Aristotle aware of?**
 - a. That dolphins are invertebrate
 - b. That whales are mammalians
 - c. That insects are vertebrate
 - d. That dolphins are fishes

- 4. Who gave a significant advancement in taxonomy in the 17th century?**
 - a. Aristotle
 - b. Charles Darwin
 - c. Carl Linnaeus
 - d. John Ray

- 5. What kind of plants are monocotyledons?**
 - a. Plants whose seeds germinate with one leaf
 - b. Plants whose seeds germinate with one leaves
 - c. Plants whose seeds germinate with one stalk
 - d. Plants whose seeds germinate with one stem

- 6. What important distinction made John Ray in his Methodus Plantarum Nova?**
 - a. Between porpoises and fishes
 - b. Between amphibians and mammalians
 - c. Between animals and plants
 - d. Between monocotyledons and dicotyledons

- 7. What is Ray's enduring legacy to botany?**
 - a. The introduction of the species as the ultimate unit of taxonomy
 - b. The introduction of the kingdom as the ultimate unit of taxonomy
 - c. The introduction of the lung as the ultimate unit of taxonomy
 - d. The introduction of the mammalian as the ultimate unit of taxonomy

- 8. What language did John Ray propose for naming species?**
 - a. Greek
 - b. English
 - c. Latin
 - d. Hebrew

- 9. What did John Ray base his system of classification on?**
 - a. Reproductive organs

- b. Overall form and structure
- c. Animals' habitat
- d. The presence of lungs and cardiac structure

10. What was the major drawback of Ray's naming system?

- a. It was too short
- b. It was too confusing
- c. It was neither short nor long
- d. It was too long

Worksheet 3

1) Before reading the text, discuss the following question with your partner: What do you know about Linnaeus?

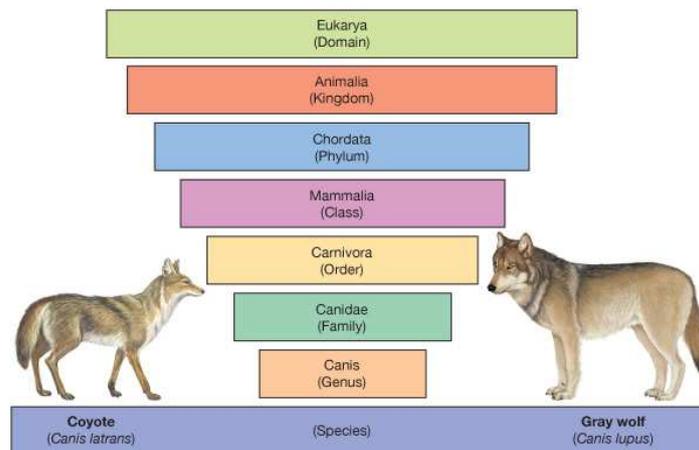
2) Read the text below and complete the gaps with the following words:

evolutionary *Taxonomy*

species *Families*

Systema Naturae *hierarchical*

After **Linnaeus** received his medical degree, he published his _____, a folio volume of only 11 pages where he presented a _____ classification, or taxonomy, of the three kingdoms of nature: stones, plants, and animals. Each kingdom was subdivided into *classes*, *orders*, *genera*, _____, and *varieties*. This hierarchy of taxonomic ranks replaced traditional systems of biological classification that were based on mutually exclusive divisions, or dichotomies. Linnaeus's classification system has survived in biology, though additional ranks, such as _____, have been added to accommodate growing numbers of species.

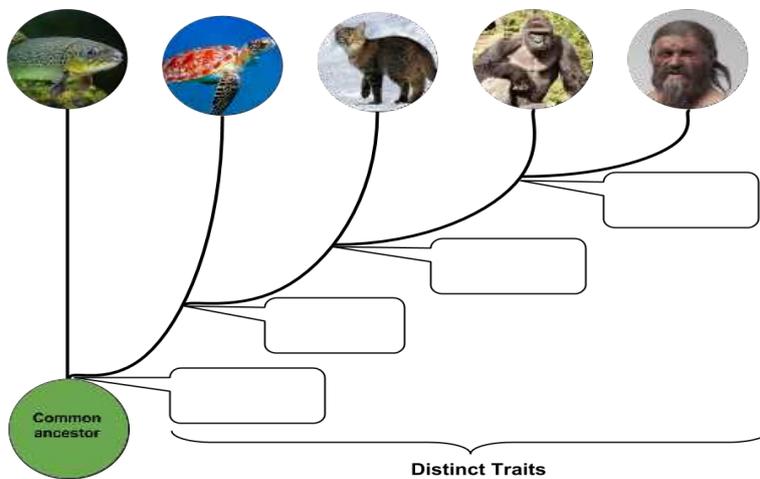


Carl Linnaeus developed the basis for modern _____ in the 1700s, sorting all things biological into hierarchical groupings that range from the kingdom level (such as animals, plants, fungi) down to individual species, each having a unique collection of observable traits. An update to the Linnaeus's method takes the _____ history of species into account (remember that Linnaeus lived a century before the time of Charles Darwin).

Ignoring the issue of whether two populations can mate, this system classifies an individual species as an organism that shares a common ancestor with other species but is set off from others by having acquired newer, distinctive traits.

3) Complete the diagram above by putting in the correct order the distinct traits that led to the evolution of these various animals (3 minutes).

Limbs Opposable thumbs Hair Walks upright



LESSON 4

Worksheet 1

1. Is there only one criterion to classify living organisms? YES NO
2. Can you indicate two or more criteria?
-
-

Worksheet 2

Match the examples given by the speaker (on the left) with the correct criteria (on the right).

Examples	
1-bobcats and linx are very similar in their physical features	a-biochemistry (biochemical characteristics)
2-male frogs in same pond made different sounds to attract females of their own group	b-DNA (genetic characteristics)
3-where the species live (ex. finches studied by Darwin)	c-physical features (morphological characteristics)
4-broccoli, kale, cabbage, cauliflower don't look much alike, but they actually have chromosomes that are almost identical in structure	d-geographical distribution (physiological characteristics)
5-eventhough red panda and giant panda are called pandas, the red pandas are most closely related to the raccoon, while the giant pandas are most closely related to bears	e-breeding behaviour (physiological characteristics)

Worksheet 3

Read the following definitions of the characteristics, which help taxonomists to classify living organisms. Fill in the gaps with the correct names of the characteristics you find below.

Anatomical Biochemical Morphological Physiological Cytological
Genetic

1. _____ characteristics regard the external structure, size, shape, and subdivisions of the animals' body, as well as the nature and state of the superficial area (scales, feathers, skin, hair etc.).
2. _____ characteristics regard the internal structure or the anatomical description: nervous system, breathing apparatus, digestive, circulatory, and muscular systems, and chordata.
3. _____ characteristics regard the animal's external and internal behaviour, such as the reproductive behaviours.
4. _____ characteristics regard the DNA and chromosomes.
5. _____ characteristics regard the structure and functioning of specific molecules, such as the haemoglobin.
6. _____ characteristics regard the structure of cells.

Lesson 6

Worksheet 1

Read the text below regarding Linnaeus classification system.

Linnaeus's system has seven levels:

1. Kingdom
2. Phylum
3. Class
4. Order
5. Family
6. Genus
7. Species

Every animal or plant can be classified according to this system.

You can remember the order the system comes in with one of the following phrases. (The first letter of each word is the first letter of the level of classification.)

King **p**enguins **c**ongregate **o**n **f**rozen **g**round **s**ometimes.

Let's look at each level and an example using one common animal.

Kingdom

Scientists agree there are six kingdoms. The animal kingdom (called Kingdom Animalia) is just one of those. In case you're interested, the others are Archaeobacteria, Eubacteria, Protists, Fungi and Plants.

Phylum

Within the animal kingdom, the animals are divided into more than 30 phyla (which is the plural of "phylum"). You might be interested in Phylum Chordata — it's the one humans and all animals with backbones are in (do you see how "chordata" looks like the word "cord" — like spinal cord?). Phylum Arthropoda contains insects, spiders and other animals with segmented bodies, like shrimp. Arthropods have their skeletons on the outside of their bodies (think of the hard shell of a lobster) and other characteristics in common.

Class

The third level of classification is class. For example, Phylum Chordata has classes in it like birds, mammals (Mammalia) and reptiles.

Order

The next level, or rank, is order. Orders are smaller groups within the different classes. Lepidoptera is the order of moths and butterflies. Carnivora is the order within Mammalia that has the most diversity in animal size.

Family

The fifth rank of classification is family. The family for dogs is Canidae.

Genus

This rank looks like "genius," doesn't it? It's the second-to-last rank, and a genus may have only one or two animals in it. If animals are in the same genus, they are really closely related. In fact, you may not be able to tell them apart just by looking at them! When we write the name of the genus, we capitalize it and italicize it. For example, the genus of dogs (and wolves, too!) is *Canis*.

Species

If animals can breed together successfully, they are a species. When an animal is called by its scientific name, then that means it is being identified by its genus and species. We use a lowercase letter and italics for the species. The scientific name of dogs is *Canis familiaris*.

Worksheet 2

Now fill in the blanks with the correct words below, by checking online.

Common name	phylum	class	order	Family	genus	species
cow	chordata		artiodactyla		bos	
Grizzly bear	chordata	mammalia		Ursidae		Arctos horribilis
horse	chordata		perissodactyla	Equidae		

Ursus, Bovidae, mammalia, caballus, carnivora, mammalia, taurus, Equus

Worksheet 3

Try to use the scientific classification system for your school starting from Kingdom.

KINGDOM classroom
PHYLUM _____
CLASS _____
ORDER _____
FAMILY _____
GENUS _____
SPECIES _____

Examples

Look here for ideas if you get confused. There is an example of how to break things down into smaller categories, and then there is an example of a scientific classification for an item. So that you don't get stuck trying to copy the example, we've used a school instead of a house for the example.

Do you see how the groups get smaller and smaller, ending in a single item? That is what you are trying to do.

Kingdom:	Classroom
Phylum:	Students' Supplies
Class:	Language Arts

Order:	Reading Center
Family:	Books
Genus:	Chapter Books
Species:	"Tales of a Fourth Grade Nothing"

Worksheet 4

Classify your own animal: choose an animal and, using your mobile phone, try to complete scientific classification. What is the name of species?

KINGDOM _____
PHYLUM _____
CLASS _____
ORDER _____
FAMILY _____
GENUS _____
SPECIES _____

Lesson 7

Activity 1: Discuss within your group and choose among the following the topics you want to develop. You can even choose to aggregate and develop two or more topics:

1. Carl Linnaeus:

- I. Who was Linnaeus? Provide some insights from his biography
- II. How does binomial nomenclature work? Compare it with Ray's method also by providing some examples
- III. What are Taxa?

2. Charles Darwin:

- I. Who was Charles Darwin? Provide some insights from his biography
- II. What is *The origin of the species*?
- III. Compare Darwin's Theory of Evolution with Lamarck's
- IV. What animals did he study during his visit to the Galapagos Islands? What features did he notice?

3. Characters

- I. What is a biological character?
- II. What characters did we meet so far?
- III. Collect some examples for each character

4. Classification:

- I. What's the meaning of Taxonomy?
- II. What Taxa are used to classify animals and plants?
- III. Provide some examples of organism classification (you decide the organisms), describing the common features for each Taxon

5. Homologous/Analogous structures

- I. Can you give a definition of homologous and analogous structures?
- II. Can you give an example of two animals that have homologous structures and of two animals that have analogous structures?
- III. What is the purpose of a cladogram? Can you describe its characteristics?
- IV. What specimen did you like the most at the museum? Can you describe it?

Activity 2: Start collecting material from the Internet, books, etc. You may want to check the following sources: www.wikipedia.org, www.britannica.com, www.linnean.org

Activity 3: Start building a draft of your poster. Remember that you have two class hours to complete the whole project.

APPENDIX C

Students' questionnaires

CODE:

MUSEUM:

Looking for the right words Student Questionnaire

Dear student,

this questionnaire is part of a research project conducted by the University Ca' Foscari of Venice on CLIL learning in the museum context. CLIL (Content and Language Integrated Learning) is a methodology which objective is that of encouraging the learning of both the subject (i.e. art or science) and the foreign language (i.e. English). Our aim is that of understanding your perception of the museum visit and what you think you learnt as a result of this experience. This is not a test and there are no wrong or right answers. We are simply interested in your opinion, and we hope you will answer honestly. Don't worry: it's anonymous! Thank you for your help!

PART 1

This section regards your perception of the CLIL museum visit

1. In a scale from 1 to 4, where 1=strongly disagree e 4=strongly agree, indicate the extent to which you agree or disagree with the following statements regarding your perception of the museum visit.

		1	2	3	4
a	Overall, the museum visit was in line with my expectations				
b	It was difficult to learn new things through English at the museum				
c	I enjoyed using English in a different context other than school				
d	If the museum visit had been in Italian, I would have enjoyed it much more				
e	I would recommend this experience to others				
f	I didn't find the museum experience inspiring at all				
g	A museum is a good context where to practise a foreign language outside of the school context				

PART 2

This section regards what you perceived to be the learning outcomes of the CLIL museum visit

2. Thanks to the museum visit, I learnt: *(you can underline one or more of the following options)*

- a. new contents (art or science)
- b. new words in English (write down two: _____, _____)
- c. other _____

3. During the museum visit, the skills I practised the most were: *(you can underline one or more of the following options)*

- a. listening in English
- b. reading in English
- c. writing in English
- d. speaking in English
- e. interacting with my classmates in English

4. What do you think helped you the most in understanding the contents through English during the museum visit? *(you can underline one or more of the following options)*

- a. the materials
- b. interacting with my colleagues
- c. group activities
- d. frontal explanations

5. Indicate if you agree or disagree with the following statements, by putting an 'x' on T (true) or F (false).

a	I understood the majority of the things that we did	T	F
b	I learnt interesting things	T	F

PART 3

This section regards your perception/evaluation of the CLIL museum visit

6a. To what extent did you enjoy the museum visit?

- Not at all
- Very little
- Enough
- Very much

6b. Why?

7a. To what extent do you rate this experience useful?

- Not at all
- Very little
- Enough
- Very much

7b. Why?

Gender: M F

Age: _____

Thank you a lot for your help!

APPENDIX D

Teachers' (Group 2) questionnaires

CODE:
MUSEUM:

Looking for the right words TEACHER QUESTIONNAIRE

Dear teacher,
this questionnaire is part of a research project conducted by the University Ca' Foscari of Venice on CLIL learning in the museum context. The questionnaire is aimed at understanding how the museum visit relates to the school curriculum and your evaluation of the impact of the experience on students' learning outcomes. The questionnaire contains 10 questions and the time completion is about 5 minutes. Your perspective is very precious for the good outcome of our research and we thank you for the collaboration.

PART 1

1. Why did you decide to book the activity with your class?

2. The museum visit relates to the school curriculum in terms of:

- a. contents (art/history or science)
- b. English language
- c. Integrated learning of contents and English language

3. What subject do you teach?

- a. English language
- b. non linguistic subject (please specify _____)

4. Will you follow the museum visit with post-visit activities at school? YES NO

5. Is this museum visit part of a CLIL module at school? YES NO

PART 2

6. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you believe the museum visit has had a positive impact on your students' learning:

		1	2	3	4
a	knowledge and skills associated with art/history or science				
b	general vocabulary in English				
c	subject specific vocabulary in English				

7. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you think your students practised the following language skills:

		1	2	3	4
a	listening in English				
b	reading in English				
c	writing in English				
d	speaking in English				
f	interacting with classmates in English				

8. In a scale from 1 to 4 (where 1=not at all and 4=very much), indicate the extent to which you agree with the following statements:

		1	2	3	4
a	The museum visit was appropriate in terms of my students' prior knowledge				
b	The museum visit was appropriate in terms of my students' language level				
c	The museum visit was appropriate in terms of my students' age				
d	The museum visit encouraged the integrated learning of content and language				

9a. The museum visit was in line with your expectations:

- Not at all
- Very little
- Enough
- Very much

9b. Why? _____

10a. Did you have the opportunity to observe in your students any affective reactions (i.e. joy, frustration and so on) during the museum visit? YES NO

10b. If you answered YES to the previous question, what affective reactions did you observe?

Thank you very much for your help!

Appendix E1

Questioning route for Marco Polo Art students' focus groups

I Phase (5 minutes)

- 1. Facilitator opens the session by explaining her role and the objectives of the discussion**
- 2. Facilitator explains the rules of the discussion** (i.e. “it is important that you interact with each other and that you listen to each other’s comments in an active, critical and positive way”; “it is ok to have a different opinion from the others; don’t raise your voice if you don’t agree with someone else’s comments”; “try not to interrupt someone while he/she is talking” etc.)

II Phase (40 minutes)

Opening question (5 min)

- 1) Tell us about a time you went to a museum. When was it? Where were you? With whom?

Introductory question (5 min)

- 2) Before the visit to the Natural History Museum, had you ever used English outside of the school context?
- 3) Had you ever taken part in a museum visit through a foreign language?

Transition questions (5 min)

- 4) How was taking part in the museum visit at Natural History Museum through English? You can choose one of the following adjectives:

fun difficult useful boring different useless
engaging

Central questions (25 min)

- 5) What was difficult to do? What was fun?
- 6) Which one of the following comments do you agree with the most and why?
 - a) “It’s nice to experiment with the English language outside of the school context, in different subjects and in different ways and the activities were fun”
 - b) “It was much more interesting than an hour of explanation at school”
 - c) “It’s a new way to visit the museum”
 - d) “It’s useful for the language but boring for the contents”
 - e) “I didn’t like it...I’m not a museum lover”
- 7) What do you think you learnt as a result of the museum visit?

- 8) Why do you think only some of you chose the topic of the visit (i.e. homology and analogy) for the poster?
- 9) What difference do you think there is between doing a science lesson in English at school and at museum?
- 10) In pairs, think about two or more positive and negative aspects of doing an integrated CLIL module both at school and at the museum.
- 11) How did you feel during the museum visit?

anxious proud surprised bored frustrated
engaged active amused attentive

Concluding Questions (5 min)

- 12) Would you like to do another museum visit in English?
- 13) The aim of this discussion was for us to know your perception of the museum visit through English. Is there anything else that you would like to add?

III Phase (5 min)

Concluding remarks

“Well! How do you think this discussion went? You did great and I’m really happy you decided to participate”

APPENDIX E2

Conversation aids sheet for students' focus groups

4) How was taking part in the museum visit at Natural History Museum through English?
You can choose one of the following adjectives:

Fun difficult useful boring different useless engaging

6) Which one of the following comments do you agree the most and why?

- a) "It's nice to experiment with the English language outside of the school context, in different subjects and in different ways and the activities were fun"
- b) "It was much more interesting than an hour of explanation at school"
- c) "It's a new way to visit the museum"
- d) "It's useful for the language but boring for the contents"
- e) "I didn't like it...I'm not a museum lover"

10) In pairs, think about two or more positive and negative aspects of doing an integrated CLIL module both at school and at the museum.

+	-

11) How did you feel during the museum visit?

anxious proud surprised bored frustrated

hooked engaged amused attentive

APPENDIX F

Questioning route for Marco Polo teachers and Researcher-practitioner's fruitful discussion

REFLECTION ON THE INTEGRATION OF THE CLIL MUSEUM VISIT IN THE SCHOOL CURRICULUM

1. Think about a word that could describe your experience during the design and delivery of our school-museum CLIL integrated module.
2. Did it respond to your expectations?
3. Has it changed your way of teaching?
4. What were the difficulties in creating and delivering the module?
5. What were the positive aspects?
6. Is there any added value of integrating a museum visit in a CLIL module?
7. Were there any differences in taking the student to the museum during their fifth lesson, and at the end?
8. What would you change?

REFLECTION ON THE IMPACT ON STUDENTS' ATTITUDES

9. What impact do you think the CLIL museum visit had on the students?
10. What impact do you think it had on students' attitudes?
11. Why do you think so few chose the museum topic for the poster?

REFLECTION ON THE IMPACT ON STUDENTS' LEARNING

12. What impact do you think the CLIL museum visit had on students' learning?

REFLECTION ON THE TEACHERS' SUPPORTING DOCUMENT

13. Do you think the teachers' supporting document could help in understanding the aims and methodology of the CLIL museum visit?
14. What support do you think the museum should provide teachers to help them integrate the visit into the school curriculum?
15. Do you think the CLIL museum visit could work on its own without pre- and post-visit lessons in the classroom?

Appendix G

Questioning route for MSN staff and Researcher-practitioner's fruitful discussion

1. Why do you think a museum should offer CLIL museum programmes?
2. What knowledges and competences are necessary when developing a CLIL museum programme?
3. What knowledges and skills should a museum educator have when delivering CLIL museum programmes? Can you give some examples?
4. What were the strenghts of the CLIL museum programmes developed at the Civic Museums of Venice?
5. Are there any aspects that you would modify?If so, which ones?
6. On the basis of your experience, what characterises a successful CLIL museum programme?
7. What critical aspects can you identify as regards the collaboration with teachers in relation to both CLIL and non-CLIL programmes (i.e. collaboration, expectations, pre- and post-visit activities, roles during the visit)
8. In your opinion, what distinguishes CLIL at school, and at the museum?
9. Is there anything else you would like to share?

APPENDIX H

Questioning route for the Education Director's written interview

Q1. Why do you think that a museum should offer CLIL museum programmes?

Q2. What knowledges and competences are necessary when designing a CLIL museum programme?

Q3. What knowledges and competences should a CLIL museum educator necessarily have? Can you give practical examples?

Q4. What aspects do you feel are satisfactory of the CLIL museum programmes we planned and delivered at the Civic Museums?

Q5. Are there any aspects that you would modify? If so, which ones?

Q6. On the basis of your experience what are the ingredients for a successful CLIL museum programme?

Q7. As regards the collaboration with teachers, what are the difficulties generally encountered and those specific of CLIL museum programmes? (collaboration=expectations, support for the preparation and follow-up, roles during the visit)

Q8. What do you think is the difference between planning and delivering CLIL at school and in the museum?

Q9. Is there anything else that you would like to share?

APPENDIX I

Questioning route for Museum Educator 1's written interview

- Q1. What word would you use to describe your experience as a CLIL museum educator?
- Q2. During the CLIL museum workshops, what do you do that is similar/different in comparison to the other non-CLIL museum workshops?
- Q3. In your opinion, what are the difficulties and benefits of the CLIL museum workshops?
- Q4. What aspects do you think are difficult in designing and delivering CLIL museum workshops?
- Q5. How do students normally respond to the CLIL museum workshop?
- Q6. How do teachers normally respond to the CLIL museum workshop?
- Q7. What roles do teachers play during the CLIL museum workshop?
- Q8. What competences do you think a CLIL museum educator should have?

APPENDIX L

Questioning route for Museum Educator 2's oral interview

- Q1. What word would you use to describe your experience as a CLIL museum educator?
- Q2. During the CLIL museum workshops, what do you do that is similar/different in comparison to the other non-CLIL museum workshops?
- Q3. In your opinion, what are the difficulties and benefits of the CLIL museum workshops?
- Q4. What aspects do you think are difficult in designing and delivering CLIL museum workshops?
- Q5. How do students normally respond to the CLIL museum workshop?
- Q6. How do teachers normally respond to the CLIL museum workshop?
- Q7. What roles do teachers play during the CLIL museum workshop?
- Q8. What competences do you think a CLIL museum educator should have?

Appendix M

Transcriptions and written interviews

1) Written interview (Education Director)

Q1. Why do you think that a museum should offer CLIL museum programmes?

The CLIL methodology is today formally part of the Italian school, as foreseen by the Reform of upper secondary school (D.P.R. 15 March 2010, n. 87-89) and Law 107, called “The Good School” (Art 7., 2015). The introduction of CLIL involved and is still involving a great effort on the part of teachers to respond to the curriculum changes, and not always they have been able/are able to do so. Museums, when the appropriate pedagogical approach is used, can be incredible tools to support learning. They are characterised by two linguistic systems, that of images and that of things, and this allows them, through adopting the appropriate methodology, to be both spaces and tools to develop and improve a FL, through integrating contents and language.

For example, for students whose mother tongue is Italian (or that are not English native speakers), a museum learning programme in English as a FL entails activities, which objective is to engage [students] with contents linked to the museum context through English in an appropriate way and through the use of appropriate pedagogical materials [worksheets].

Q2. What knowledges and competences are necessary when designing a CLIL museum programme?

- Specific contents: only an excellent knowledge of the contents can allow to carry on the necessary process of synthesis and to identify the right objectives for reaching the expected results in terms of comprehension and transmission of knowledges.
- Practical techniques for a cooperative and active pedagogy: in my opinion, a museum learning workshop only makes sense if it's delivered in this way. The museum learning workshop should not be used to “shower” students with notions/information, but to provide them with stimuli, connections, ideas and to spark new interests so as to encourage them to follow-up with more in depth study.
- Language: the workshop should be an opportunity for students to listen, test themselves and understand the language in the best way possible.

Q3. What knowledges and competences should a CLIL museum educator necessarily have? Can you give practical examples?

He/she should know the museum contents so as to be able to also answer to the unforeseen questions; he/she should adopt in a sound way the cooperative/active methodology, and have an excellent competence in the FL.

Q4. What aspects do you feel are satisfactory of the CLIL museum programmes we planned and delivered at the Civic Museums?

The added value of the museum experience, the right balance we were able to establish between language and contents, and the materials [worksheets] we designed.

Q5. Are there any aspects that you would modify? If so, which ones?

No, there aren't any.

Q6. On the basis of your experience what are the ingredients for a successful CLIL museum programme?

See answer to Q2.

Q7. As regards the collaboration with teachers, what are the difficulties generally encountered and those specific of CLIL museum programmes? (collaboration=expectations, support for the preparation and follow-up, roles during the visit)

You encounter people with very diverse personalities and professionalism when you work with teachers, as they have different competences, motivation, presence (or not) of a clear pedagogical methodology. Some of them are motivated but adopt methodologies that are not compatible with the ones we propose, some are not motivated at all, and others are not very competent. Some are really good. However, they behave very differently during the museum learning activities: there are those that can't wait to "abandon" the students for two hours and to "disappear", those that spoil the wonder and surprise, which we think are the most important ingredients to engage students, through preparing them in a boring and incorrect way, often resulting in them being bored upfront. The ideal situation would be having a teacher that is attentive during the museum workshop and that does NOT prepare the students before the visit, but uses the tools and stimuli offered during the museum experience to provide students with follow up learning activities in the classroom in line with the school objectives. As regards our CLIL museum programmes, I observed less issues, and I believe that the training workshop we offered teachers last September was useful. I'm inclined to offer it again. An alternative could be that of providing the teachers that have already booked the activity with tools (such as the teaching materials we sent them last year) to help them design CLIL modules.

Q8. What do you think is the difference between planning and delivering CLIL at school and in the museum?

The less formal and frontal context, the cooperative and active methodology, the immediate feedback received through engaging with [materiality], and an opportunity to test one's abilities through engaging with the language of images and objects.

Q9. Is there anything else that you would like to share?

[No] Good luck!!

2) Written interview (Museum Educator 1)

Q1. What word would you use to describe your experience as a CLIL museum educator?

Stimulating, both for students and for myself

Q2. During the CLIL museum workshops, what do you do that is similar/different in comparison to the other non-CLIL museum workshops?

Group management is the same, but the interaction is more difficult. It's difficult to make jokes, use filler sentences and metaphors that are usually employed to keeping students' attention high and to scaffold explanations. It's necessary to ask lots of questions or ask them to complete sentences to make sure that they understand. However, this is something that is normally done also during the non-CLIL museum workshops.

Q3. In your opinion, what are the difficulties and benefits of the CLIL museum workshops?

The major risk of the CLIL activities is that, when you want to focus on both language and content, you might not be able to transfer neither. Only by providing [students] with lots of exercises, corrections, experiments, and practical activities you can partially avoid this risk.

Q4. What aspects do you think are difficult in designing and delivering CLIL museum workshops?

You need to change your approach completely in comparison to a "normal" activity. You need to reduce the concepts you want to convey and continue to repeat the same words to fix the few [concepts] you've chosen to focus on.

Q5. How do students normally respond to the CLIL museum workshop?

Initially, they're very reluctant to interact, then most of them relax and interact, also because they're somehow forced by the activity itself.

Q6. How do teachers normally respond to the CLIL museum workshop?

Most of the time, they mind their own business and leave the workshop. Then in the end, they pay you compliments for the little they've seen/experienced. They very rarely actively participate, and in this case they usually support students' [understanding].

Q7. What roles do teachers play during the CLIL museum workshop?

They almost have no role at all, or they try to help students, and often not in a correct way. Very rarely, they understand the [pedagogical] underpinnings of CLIL and ask them questions in English to help the students.

Q8. What competences do you think a CLIL museum educator should have?

I believe that, when considering the language level of the target [school students], it's sufficient that the CLIL museum educator has a medium language level. Same for the science concepts, which are basic. Also because, to convey more complex concepts through a foreign language

would be very difficult. I think that if he/she used a good pronunciation and phraseology, this would make the [CLIL] experience better, although reducing students' overall comprehension.

3) Oral interview (Museum Educator 2)

Date: 05 May 2018

Museum: Ca' Rezzonico and Ca' Pesaro

Participant: Museum Educator 2 (ME2)

Duration: 39:00 (ca) minutes

RP: What word would you use to describe your experience as a CLIL museum educator?

ME2: if I said "discovery" would it be too ordinary?

RP: what do you mean by "ordinary"? [laughing]

ME2: because I know that for me it was a real discovery

RP: ok [prompting]

ME2: it was an interesting challenge both for me, because I tested my competences with the language but also how to teach the language through the museum...and it sounds easy, but it really isn't

RP: ha ha [laughing]

ME2: [laughing]

RP: can you give me an example? [laughing]

ME2: for me it was real discovery...I had amazing feelings...not only because I put myself out there but because they [the students] did it too and we accomplished something nice [together]

RP: ok [smiling] [prompting]

ME2: it was a very positive experience because I like it

RP: ha ha...but is it different? Because I know you also deliver guided visits in a foreign language

ME2: yes, it's different, completely because the guided visit in a foreign language is like delivering a visit in Italian, because you communicate but the objective is not the language, but that they receive the message, while the CLIL museum workshop is something completely different because you use the museum as a tool to transmit the language, while in the former case you use the language to transmit the museum, it's the opposite

RP: ok

ME2: this was good wasn't it

RP: ha ha yes it was [laughing]

RP: so what do you exactly do differently when you deliver a CLIL museum workshop in comparison also to a guided visit in Italian...think about how you interact with students

ME2: well, there's always a lot of interaction even during the other workshops but in a CLIL museum workshop, students' participation needs to be higher than mine, meaning that I guide them (pause) towards that objective, but from my perspective is really important that I don't speak too much, and listen to them, see what they're missing, try to understand what could be difficult for them...but it's more about monitoring them, remaining available, without bombarding them with lots of information as I'd maybe do with other types of visits [laughing]...I focus more on the listening [part] and I focus on the basics making sure that they can understand them and that they can retain a certain type of vocabulary, a certain way to structure the phrase...I mean when I deliver a [normal] visit I'm not so focused on how I structure a phrase or the vocabulary I use...I mean if I'm delivering a visit to middle school students [in Italian] they already know what is a sculpture and what is a painting, but with [CLIL] I pay more attention so it's a totally different way to deliver the visit

RP: ok

ME2: does it make sense?

RP: yes yes...so do you pay more attention to the way you speak?

ME2: eh of course

RP: what do you exactly do differently?

ME2: I'm less instinctive, I follow more of a structure and (pause) and I tend to observe more how they react...and I try to understand if they're following me, because...one thing is to adapt the contents on the basis of the group you have in front of you and that...maybe it's because I've been working [as a museum educator] for a long time, but I mean...after a while you [understand] immediately from their eyes what kind of group is standing in front of you as soon as they enter in the museum...because it's about their personality, how they move in space, you can even understand their level of English from how they move in space and in that case I need to pay more attention to the way they behave, and try to understand if they understand me because language comprehension is [usually given for granted] apart from one occasion, in which I had a group from the south of Italy and they only spoke in dialect and couldn't understand me, but that's been the only case [when delivering the visit in Italian] otherwise it's never been a problem (...) but with [CLIL] is totally different because I need to pay attention to what they say and how they say it, if they can follow [understand] me, I also pay attention to how they react to what I say because I need to adapt to their English level...recently at Ca' Pesaro I had people that had already passed the C1 level or people that had never spoken in English before in their life

RP: and how- what do you do to see whether they've understood or not?

ME2: mm mm

RP: Do you use any specific strategies?

ME2: mm mm

RP: I mean when you've realised there is a problem of comprehension-

ME2: well, I realise that there's a problem of comprehension (...) from how they structure the sentence, how they react when I speak to them, I make a joke and they don't laugh (...) I mean you can tell when people don't actually understand and so you need to adapt...if I was already speaking slowly, I'd speak even more slowly, I try to articulate words more clearly, I ask them more often whether they have understood or not, I translate some words in Italian, for example I say a sentence and then I ask them- for example I say "*window*" and then I ask them "did you understand what *window* is?", and then I say "*window is finestra*", so I try to help them so that they arrive to the end of the visit with [something]...the most important thing is that they don't feel like they're idiots-

RP: ha ha

ME2: often, you already have the teachers for that

RP: why do you say that?

ME2: it's not always like this, but it often happens that the teachers come to you and say "they don't know anything, they don't pay attention, they're stupid"

RP: ha ha...nice way to start [laughing]

(...)

RP: and how do you interact with teachers?

ME2: well teachers are usually very happy, they like the CLIL museum workshop a lot, they're very curious at the beginning...they feel like it's something new and they're not...reluctant...that's what I was expecting, but that's maybe because teachers are sometimes difficult to handle, but they seem curious and happy, also because there's nothing better for them than combining two subjects in the same outing, and this gives them the goose bumps

RP: [laughing]

RP: and what role do they usually play during the visit?

ME2: passive listeners and also-o-o...if there's an English teacher- well first of all I had an art teacher once that asked me to talk about something they had done in class and to explain it better always in English or teachers that after my visit would stay in the museum with the students and explain them other works of art

RP: ok

ME2: with the English teachers...they would walk around the groups, give out some suggestions like I do...they also reprimand them A LOT [saying] "but WE DID THIS IN CLASS", poor them they did so many other things in class the previous week

RP: [laughing]

RP: listen, think especially about the CLIL museum workshops...are students prepared'-

ME2: (overlapping) very little

RP: little

ME2: upper secondary school students arrive at the museum that have been prepared a little, but not so much low secondary school students, almost never...and when they've been prepared is in relation to the collection and only when the workshop is at Ca' Pesaro, never at Ca' Rezzonico, because there they arrive knowing nothing

RP: while with Ca' Pesaro you feel like...

ME2: yes, teachers seem more interested in preparing them...don't ask me why, though because that's a mystery

RP: bah...maybe because it's a collection of modern and contemporary art and I'm just thinking...it's in the third year curriculum of low secondary school

ME2: yes, but that's the same with the upper secondary school, like the 18th century wasn't important...is the 900s more important?, well maybe for schools yes

RP: usually what grades do you usually have? More low secondary school at Ca' Pesaro and upper secondary schools at Ca' Rezzonico?

ME2: usually it's a bit of a mix (...) I haven't noticed lots of differences...maybe I have more at Ca' Pesaro, they choose that setting more, but that's just my feeling, I'd need to check (...) What about you?

RP: well last year I only had students in their third year of low secondary school at Ca' Pesaro, but it's also true that I had the same school book 7 visits, while at Ca' Rezzonico I only had upper secondary school students...usually fourth or second year, it really depended on the kind of school..if it was a *professionale* then it would normally be students in their second year, while it was a *liceo*, it would be students in their fourth year...because I think it always depends on the school curriculum, but then I also noticed that there's a lot of variability also in terms of what teachers decide to accompany them

ME2: yes, also depending on who is available and if I were a teacher I'm not sure I'd take them, because it's a big responsibility and also you don't get paid extra and it's a bit like a vocation that of taking them on a school trip...so poor them

RP: [laughing]

(...)

RP: do you think there's anything that is similar between CLIL and non-CLIL museum workshops and visits?

ME2: well I'll tell you a difference...I usually feel like I have a much closer relationship with the students of the CLIL workshops than with those of the non-CLIL workshops...maybe because I speak as much as them and I'm able to get to know them better, while with the guided visits...of course it always depends on the visit...because there's so much to say and even though they ask me questions, I'm always the one that answers them

RP: so they don't work in groups

ME2: no, you don't work in groups, except for some activities but it's always in plenary...I'm thinking about the younger children for example, both at Ca' Pesaro and Ca' Rezzonico...of course you have two groups but you always work all together, so it's not a competition (...)

RP: ha ha

ME2: things that are similar-r... well the relationship with the teachers...I always try to make them relaxed, explaining them how it works before we start, and they almost often act as passive listeners, also because, as you said, most of the times they're not the art and language teachers...I've seen so many math teachers...they must be the nicest

RP: I've seen a bit of a mixture (...)

ME2: with me it 50/50, I mean in half of the cases you had an art or English teacher accompanying the group and the other half were of other subjects

RP: yes (...) it's nice though what you're saying about the different kind of relationship you build with students

ME2: of course I build a different kind of relationship because I listen to them more...when I deliver a guided visit at the Doge's Palace I certainly don't ask them "tell me your opinion about this painting by Veronese"...it doesn't work this way...ask me questions and I try to adjust the visit to your interests but I do the majority of the talking, also because they come [to the museum] to listen to me, while with CLIL they also come to test their English skills and so I'm there also to listen to them...so it's something different

RP: so more constructive?

ME2: mm maybe...well, the goal is different...more constructive...mm [I'd say just] different

RP: ok...let's focus now on...a critical aspect of developing a CLIL museum workshop (pause)...not only yours but also in general

ME2: [silence] well, logistically speaking, you have the usual issues related to the time of the visit...if the activity is scheduled for 10 am and the museum opens at 10 am, you'll always start the activity a bit later than 10, because the group can't get in before that time, then they get in, they need to leave the backpacks, get the tickets, so we start around 10:15 if it goes well, there's also the toilet break, so I've never actually started at 10:00 [laughing] but that's a problem of the booking system that doesn't tell them and teachers sometimes get upset about

this (...) so maybe issues related to logistics but-I mean...I think the museum spaces are appropriate for this type of activity-

RP: mm [nodding]

ME2: I'd never do something like this at the Doge's Palace, not even with a gun pointed to my head, because there are too many people, too much commotion and you also have to share the space with the tourist guides that get very cranky if you make too much noise...even the invigilators, they're much more understanding at Ca' Pesaro and Ca' Rezzonico, while they're not at the Doge's Palace, even if it's the same people, because you have to behave in a different way, even though some teachers would have liked to go to the Doge's Palace!

RP: [laughing]

(...)

RP: so you think there are museums-spaces that are more appropriate for this type of activity than others [prompting to expand]

ME2: yes, I'd say that all the museum are appropriate if they don't have that many people crammed together, but it also depends on the design of the exhibition...I'd never do it in the Correr, for example, because it's sort of a Wunderkammer, and there's no space to move

RP: what do you mean by "there's no space"?

ME2: in the rooms, they're full (...) I wouldn't find them appropriate (...) the spaces are narrow and everything's in the corridor...so I think that the idea of offering the CLIL museum programmes at Ca' Rezzonico and Ca' Pesaro is excellent, and it would be quite interesting to think about the Glass Museum, even though it's quite complex, because the glass has a very specific lexicon, and it was hard for me as well, so maybe it would be [appropriate] only for upper secondary schools because it's too specific

RP: if you had to design an activity, what are the aspects that you'd take into consideration?

ME2: well, first of all I'd think about which museum, [because] it needs to be welcoming, the staff needs to be nice, and this is very important-

RP: (overlapping) why do you think that this is important?

ME2: because students interact with them as well, to have someone that behind your back shushes you all the time, tells you not to disturb you it doesn't help you to concentrate and it doesn't make you feel comfortable and if they don't feel comfortable they don't complete the activities, especially in such a short time, because we have five to ten minutes, not two hours [for one activity]

RP: exactly...and did you notice any difference on the...time that we give them to complete an activity?

ME2: I think the time is ok, but if you don't feel comfortable you can't make it...in fact, I observed that they were weaker towards the end than at the beginning because they need to get

familiar with the space as well and with the person they have in front of them [the museum educator]...in my opinion, a CLIL museum educator should be very emphatic, always smiling, that doesn't make them feel stupid [laughing]

RP: [laughing]

ME2: yes, maybe, especially at the beginning, I scold them of course, but then I smile and tell them "now we can start", I make jokes

RP: and what language do you use? for example to-

ME2: (overlapping) I always use English

RP: to scold them

ME2: actually, at the beginning, I introduce myself in English also to the teachers because then it's easier for me, not because I want to sound English [native], because I tell them that I'm not English, but because it's much more difficult for them to interact with someone that at the beginning talked in Italian, because they say "well, she knows Italian, she speaks it", while if they never hear me talking in Italian except for when I translate the words, then for then it's easier, because they see it as less fake...in my opinion...easy psychology

RP: [laughing]

ME2: also because it's important that I feel comfortable, otherwise the visit turns out horrible

RP: exactly, this is an interesting aspect

ME2: I mean if the teacher starts to attack me, making me feel doubtful and paranoid, I'm a human being, so it's not like it doesn't affect me

RP: were there any occasions when you felt anxious or you find it difficult-

ME2: at the beginning, because it was something new, and I was a bit agitated...then the more I did it I stopped [feeling that way]

RP: what made you feel anxious?

ME2: (pause) maybe the fact to teach English, not to deliver a guided visit in English, which is totally different...one thing is to make yourself understood, and another is to teach a language...I was afraid to make a mistake and teach them something wrong but-

RP: when you say "to teach", what do you mean?

ME2: for example, to teach them a new word or a verb

RP: ok...but from the point of view of the pronunciation or the equivalent word [unclear because of cross talk]?

ME2: from the point of view of grammar

RP: ha ha

ME2: I mean the English grammar is easy but I always find grammar difficult [in general] but I think it's a problem of confidence...I saw that after a while it wasn't a problem anymore

RP: ok

ME2: ...I relaxed a lot because I had never done something similar...I studied English mm I went to England many times, but to go from studying art history to go back and study English...because I had to revise it anyway...but it also helped that I work as an English home tutor for kids

RP: ok [smiling] so you used that experience-e- [questioning tone]

ME2: (overlapping) actually, the first CLIL museum workshop I delivered almost coincided with the first tutoring session, so I'd say that one helped the other

RP: ok...in what way? If I may ask

ME2: well in the same way, to acquire a bit of familiarity...to get in contact with the language and to be a bit more (pause) *free*...comfortable with the language...it's very important to feel comfortable...not only for them, but also for me...I think this is one of the most important things

(...)

RP: so if we had to build the profile of the perfect CLIL museum educator, what would that be?

ME2: perfect knowledge of English, perfect knowledge of the museum and related to it, mmm to be really nice, great empathy, to be an excellent listener (pause) great patience, lots of it [laughing]

RP: is it sufficient though to just have a high language level?

ME2: I think so, if together with a high language level you're also very nice and empathic...I'd say that it's more than sufficient...

RP: [laughing]

ME2: then if we wanted to create something in the laboratory, I think we can manage to create a mix [laughing sarcastically]

RP: yes of course [laughing]

ME2: I think that's what makes a good teacher, to be nice, empathic and to have good listening skills

RP: mm mm

ME2: then obviously, he also needs to be a good communicator, but usually a good listener is also a good communicator

RP: what do you mean by good communicator?

ME2: to be able to express a concept in a clear and efficient way, in the shortest time possible so as to make sure they remain attentive

(...)

RP: ok (...) are there any differences between low and upper secondary school students?

ME2: (pause) yes

RP: o between groups and groups

ME2: well of course there are differences between groups and groups

RP: what differences do you notice?

ME2: well, there's the one who's more attentive, then those who are not...even in the same group, you find differences, you've got the one who knows it all...it happens all the time, more with the lower secondary, than with the others, that you have five or less students that answer all the time...but it also depends on their shyness...the fact that they don't respond or interact is not always because they don't know or they don't pay attention, but because they're shy, and you notice this because maybe they don't say anything but they write all the time...and in that case I prefer not to poke too much, I mean I try a couple of times, and then I stop because otherwise they close up even more

RP: what do you usually do? Do you call them by names?

ME2: mm no, I stare at them very intensively so they understand I'm talking with them

RP: [laughing]

ME2: I do ask them questions but generally I ask for volunteers but I try not to say "you tell me this", [singling out people] because I think it's quite obnoxious (...) then it depends on the question and the situation...if we're in a conversation and I decide to ask a question then I do it but...[I enquire about] things that don't normally require previous knowledge, something like "what would you have done in that situation?", which is a personal question and they're like "ok, she's asking me something not because I should know it, but because it's about my feelings"...this is important...but students react very well usually, they like it...maybe I had one bad experience with lower secondary students at Ca' Pesaro, who were not listening to me at all, and teachers apologised I don't know how many times, but it happens all the time also with the other visits...if they can't make it because of their age- I mean I had a group of French students and at some point I just wanted to leave and one of the students came to me and said "I'm sorry about the behaviour of my peers"

RP: [laughing]

ME2: so the lower secondary students are a bit of a mix, you have those who are mature and those who still act like they were in primary school

RP: do you think there's any difference in the way they interact with you and with their teachers?

ME2: yes, it's pretty different...also because I'm young (...) so with me they behave a bit more informally...I remember that one time one student approached me and said "that's so cool, pal", and I said "yes, pal" and obviously these things don't happen with their teachers (...) but it's also true that they have more of a synergy with their teachers, but that's also normal because you're not able to build a long lasting relationship in such a short time...but students are always very happy and satisfied, because they feel like they have built something, they like it...because first of all they complete the worksheets [sort of a small book], which is something that they can keep, they've learnt new things for sure, things that can also be nice and helpful...also, the objective of the worksheets is to repeat certain words to see if they've learnt them

RP: so you present the words more than one time?

ME2: it's the worksheets themselves that do it, especially the one aimed at lower secondary students...at Ca' Pesaro, you have the last activity in which they have to compare two sculptures, Rodin and Calder, and they have to say which one is metal and which one is cast and I already talked about these [words] in the first activity and so you present them to the students again at the end of [the workshop] and you see that they remember and it's nice

RP: when you say that "it's nice" what do you mean?

ME2: that it makes me proud that they remember, they're happy, I'm happy, we're all very happy

RP: [laughing]

RP: do they ever comment on their performance?

ME2: the lower secondary students do "how cool I am! I knew this thing" or "I told you earlier that it wasn't like that"... these are the classic comments...the upper secondary students make less comments but because they're older, less childish, more controlled

RP: listen, how does a CLIL workshop normally end?

ME2: it ends with me thanking them and saying that I had a nice time, at least when it's true...when it isn't I don't say it, because they need to feel sorry [laughing and the RP joins in]...however, lately I've had amazing groups and I told them they had been some of the best groups I had ever had...I say this only if it's true...they thank you, they sometimes clap their hands together, and I usually get a little embarrassed and I bow

RP: [laughing]

ME2: yes, I'm not very serious when I work as a museum educator [laughing]...anyway, I think it's very important to thank them at the end [of the workshop], because they understand

that you had fun as well, that they did something nice, and that they worked well, because it was a test for them and I thank them for the time they've dedicated to interacting with me

RP: Is there anything else that you'd like to add?...I think we answered most of the questions

ME2: yes, number 4 maybe...but I don't design the activities...but when I'm there maybe the most difficult part is to jump in the void as you're asking them to do something and to test themselves, that it's not the most amazing thing ever "do this exercise, test yourself"...you can also sell it to them like they were game, but they know that they're not games...

RP: ha ha

ME2: so the ice breaking at the beginning is fundamental

RP: mm why do you say so?

ME2: first all of because you tell them about yourself, because I always choose three things about myself, two are true and one is false, and they think of you as a human being, and not as a teacher, and this is very important afterwards...and it's also something the springs discussion, something fun, a bit nonsense that they like, and it always ends with a good laugh (...)

RP: and so you think that-

ME2: (overlapping) I think that what comes out is the human component of the museum educator that very often is missing, not so much during the CLIL museum workshops, but in other types of visits, in which you have to rush...when, for example, the teacher tells you "in an hour we HAVE TOO SEE ALL OF IT"...yes, of course, you can imagine what a nice relationship you can build with them [sarcastic tone]

RP: so what you think is that even the type of relationship that needs to be built with the CLIL students is different?

ME2: yes, it's a closer relationship...yes yes...because during a classic activity you ask less of students, I mean you ask them things about the museum but in their own language, and if it's something that they can share, it never gets too difficult, and they can always ask me in their own language, while with CLIL it's more difficult because they're required to learn both new contents about the museum and in a new language so the level of difficulty is much higher and also a higher effort, which almost doubles in comparison to a normal visit, and this is also why I thank them a lot at the end of the visit, because I know that it's heavy for them

ME2: I'd never consider to do another activity after this one...I think the students already accomplished what they were already supposed to...it's not [feasible] that "yes, after this we take them to the Guggenheim and then to the Biennale" [laughing in astonishment]

RP: [laughing]

ME2: how can they do it? it's impossible right?! I for example learnt that when I deliver a visit to people affected by Alzheimer, I can only deliver that one, I can't have another one after that, because I feel drained

RP: so even for you attention is-

ME2: (overlapping) no, with CLIL I don't have any problem mm mm because I'm always there to guide the game, but in an activity like the Alzheimer one that I need to monitor myself a lot, at the end I'm like...I feel like I lost 5 kgs, so that's heavy for me and I understand the CLIL students, that after testing themselves with an activity like the CLIL museum workshop, because it's the way I feel after delivering a visit to people affected by Alzheimer...so I wouldn't suggest them to participate in another museum activity after the CLIL one

RP: you said something interesting earlier (...) that they have two things to learn, the language and the content, and you talked about the attention you focus on the language, but is the content also important for you?

ME2: [the content] comes about more natural to me because especially when I'm at Ca' Pesaro, I feel a little bit like at home (...) I used to go there even when I was younger and that's why I feel like I'm able to convey its contents even in an informal way, and that's why I'm very fond of it and I feel very close to it from an affective point of view, so for me to convey a museum such as Ca' Pesaro is more or less easy...well maybe not easy, but I've been conveying the contents of the museum for years now, so I know it well, and I feel very comfortable, so it's not something new

RP: of course! This is very nice...I think that's it then

ME2: do you think you have enough?

RP: definitely! Thank you for sharing so much...let me just switch off the recorder

[end of first recording]

ME2: something I also wanted to add is that it happened to me that teachers wanted a guided visit of the Doge's Palace in English...this happened two years ago...both at the Doge's Palace and in another contemporary art museum and these were Italian lower secondary students and the teachers were very convinced that I had to deliver the visit entirely in English and I told them that it would be very difficult for the students if I only explained myself in English and they said "well, because in this way we do both art and English" and I thought "what a wonderful idea" [sarcastic] and I told them "look, I think to have the visit in Italian would be much better, because I tested their level a bit and it's low and I don't think they'll understand me at all" and it was exactly like I said, they didn't understand me at all...at the end of the visit, the teacher told me "you know, you were right, it would have been better if the visit had been in Italian" and I sort of wanted to struggle her [the teacher]...then it happened in French as well...I had this group that had booked a visit in French but they were more Italian than me, and they hadn't told the museum, and I told them I don't feel like I can do this, to teach them French, no no...and I delivered this visit and then the teacher stopped me and said "you keep making this [linguistic] mistake and I don't want my students to learn it" and I was just like "Just one mistake, that's not possible" [sarcastic], I mean I speak French, and I learnt it naturally, and this was terrible, and students came to me to apologise for how their teacher behaved

RP: so you feel like you have to be also a linguistic model?

ME2: yes, absolutely...I'd never deliver a CLIL museum workshop in French with my language level...I've got a B2 level in French but I don't think it's sufficient

RP: but you would deliver the visit in French if tourists were the target

ME2: yes, but because they understand me...I speak French well, but my French is no way perfect...it's not like I never make mistakes, I have doubts on the pronunciation (...) especially to know the little exceptions, who knows what I say...I mean "help"

RP: [laughing]

(...)

ME2: I mean when they ask you to do a normal guided visit in French for Italian students it's not CLIL, and it's pretty absurd (...) and it also happens, it hasn't yet with the CLIL programme, but it's just a matter of time, that the teachers complain because what we propose during the CLIL museum workshop is only a careful selected number of works of art, while they want to see the entire museum and they don't care if the students won't remember anything...but they don't care as long as they can demonstrate, on a piece of paper, that the students have actually seen those things

RP: why do you think they want to see it all?

ME2: because this way they can justify to parents the costs of the trip...they saw the Doge's Palace, the Correr museum, the Guggenheim and also the Biennale...AND we also took a walk around Venice...and parents are obviously happy that they've see all these things...students will hate Venice for ever and will never want to come back...I mean it's a torture...I'd hate it too if they obliged me to do something like this...it's not physically possible...you're tired, your legs hurt, your arms hurt, you're thirsty, you're hungry, you can't seat down

RP: so there's a difference between doing it at school and at the museum?

ME2: yes, of course! I mean a new environment can be stimulating but it can also be a problem (...)

RP: and what do you think it's the potential of doing it at the museum?

[end of second recording]

4) MSN and Researcher-practitioner's fruitful discussion

Date: 10 May 2018

Museum: Natural History Museum (MSN)

Participants: MSN Director, MSN Educator 1, MSN Educator 2, and Researcher-Practitioner (RP)

Duration: 39:00 (ca) minutes

MSN Educator 1: Why do you think that a museum should offer CLIL learning programmes?

PP: (pause)

MSN Educator 2: because Fabiana is very nice [laughing]

PP: (pause)

MSN Educator 2: why...?

MSN Educator 1: mmm

RP: Think about the reason why you wanted to introduce it last year

MSN Educator 1: well, it obviously responds to the new needs of school-teachers to implement [CLIL] programmes, and of course to have a real context where to do it...this is what makes a difference. [I mean the difference is that they don't have a lesson just for the sake of it but it is based on something that they're doing]...it's also true that we chose it because you proposed it [pointing at RP] [laughing]

RP: ha ha

MSN Educator 2: it's also true that we didn't know what it was

MSN Educator 1: true

RP: yeah...ok

MSN Educator 1: yes, it was something totally new

MSN Director: well, going beyond how it happened [unclear] it always happens in a bit of an informal way here in Venice...instead of devising new strategies and methodologies following institutional channels (...) it always happens because you meet people that propose interesting things and you understand that that [particular proposal] would be interesting to develop...you've also either already heard of it or you have the ability to perceive its importance-

MSN Educator 1: (overlapping) its potential

MSN Educator 2: mmm [agreeing]

MSN Director: exactly...we already know that [the English] language is very important...[the importance of] studying the language in context was already known and useful...the existence of a language that is specific to each discipline is also well known and useful and I think it could be read in many different ways...I like to think that [CLIL] leads to the acquisition of a working language [unclear] you learn to speak a language, to master it for a purpose, that is not that of getting a pass, but that of completing the task, either for work or study, and it [the language] becomes an instrument to complete the activity, a workshop in this case...it was evident that it was something (...)

MSN Educator 1: well, I was surprised by the dynamics...I had never heard of CLIL before meeting [the researcher] almost three years ago, right? [addressing the RP:]

RP: two and a half yes

MSN Educator 1: yes, because we started

RP: because-e you had that activity-

MSN Educator 1: (overlapping) right

RP: the one in English...I can't remember exactly

MSN Educator 2: no it wasn't in English...it was something connected to the new method IBSE and-

MSN Educator 1: (overlapping) no but there was also an activity in English, which wasn't CLIL

MSN Director: no it wasn't

RP: yes it focused on vocabulary...you had to look for the words, but I can't remember the name of the activity

MSN Educator 1: yes it was one of the educators from Milan, do you remember? [addressing MSN Educator 2]

MSN Educator 2: oh yeah I remember now

MSN Educator 1: it was a treasure hunt but we weren't really convinced about that activity, so maybe in this sense [this experience started from] something that had not convinced us completely and we tried to fix it, do you remember? [addressing MSN Educator 2:]

MSN Educator 2: yes yes

RP: what was problem?

MSN Educator 2: it was a workshop that had young children as a target, but we wanted something in English targeted at older students, and they sort of adapted it, but it was too simple, it didn't provide you with new contents nor with new words-

Margherite (overlapping) it was poor in terms of contents

MSN Educator 2: yeah, exactly...it wasn't working

MSN Educator 1: and I also feel that it wasn't based on an efficient English teaching methodology...I mean after we understood what CLIL modules look like, we also understood what the language objectives should be... while that one [the previous workshop] lacked of both, it was like a taste of...of creating a language...but maybe it was also because of the rooms (...) it was a bit poor when compared to the school curriculum

MSN Educator 2: it was dramatically simplified only because it was in English and the contents suffered

MSN Director: also because they had planned it with little knowledge of the-

MSN Educator 2: (overlapping) museum...yeah but that's [understandable]

MSN Educator 1: they had a scientific background, quotation mark

MSN Director: yes ok, but generally speaking (...) the conclusion we've reached from years of reasoning, and I think this is a classical example, is that (...) when we initiate partnerships with other institutions (...) with ANMS [Italian Association of science museums] for example (...) we've always felt that through [basing our partnerships on bottom-up relationships], meeting people, trying it out to see if it works, and then implementing it, maybe we were doing it wrong because then maybe you discovered that there was a study conducted by an American university, [which described a much more formal process], and even if you recognised all the work you'd put in, the challenge in choosing the professionals...it is true that we mostly act in a bit more of a naive way, that is through following a less formal strategy...we always expect that these new directions will come from the Ministry, the higher bodies (...) at my age I think that it will never be this way, because in a web dynamic reality the experimentations that really work are the ones that are designed in a bottom-up manner and they work and can influence directions

MSN Educator 1: that's true

MSN Educator 2: mm mm [nodding]

MSN Director: an example was the programme proposed by [name of important science body in Italy]-

MSN Educator 1: (overlapping) yes...it didn't really work

MSN Educator 2: (overlapping) yes yes

MSN Director: which sounded amazing, and was the result of...

MSN Educator 2: theories

MSN Director: mind wonderings

PP: [laughing]

MSN Director: but they would have never had the results they had wished for because they're too far from what works in reality. So you have to know the objectives, the instruments and the audience (...) so I'm starting to believe that [bottom-up] relationships is an added value of efficient museums and schools...[it's important] to build a web of relationships, and be able to communicate with the University, with research... we can build collaborations through which tools can be designed, tested, and validated and can become important and be disseminated and later acquired and recommended by the Ministry or whatever...so (...) thanks to our experience, we're now aware that [it's not that important where the idea comes from], because sometimes if you don't know the tool you don't know it exists, but when you encounter it a light goes on and you start thinking "this is an instrument that I can use to speak to a certain audience, to make them use English, to do things that I wanted to do but I couldn't, to do it with older students in a certain way" (...)

MSN Educator 1: also, the negative experience we had helped us in understanding what we didn't want-

MSN Educator 2: (overlapping) yes, exactly

MSN Educator 1: but also if we compare [our experience with CLIL] with the one we had with IBSE...I mean...both [CLIL and IBSE] were proposals that we received from...actually...two very fun people [looking at RP]

MSN Educator 2: [giggling and nodding in agreement]

MSN Educator 1: but with the IBSE, we were never really able to understand it...I mean, you know when you study something and you feel like you're getting to the core of it and then you put it in practice and it doesn't work...we tried but- and this is why it was never really implemented, even though it was something that had a certain potential and could be adapted for different school audiences, especially in the form of a

self-guided tour without the museum educator (...), but it never actually took off

MSN Educator 2: maybe because we weren't convinced...it could have worked on its own, but it had nothing to do with IBSE, so-

MSN Educator 1: (overlapping) we never really understood what the connection between theory and practice was, while with [CLIL] we applied ourselves and learnt little by little

MSN Educator 2: it was the right instrument

MSN Educator 1: we put together the different pieces

RP: so what about with CLIL (...)? did your ideas and expectations change through time?

MSN Educator 1: no-o...I think we simply developed a better understanding of it...I started understanding it

MSN Educator 2: also thanks to the CLIL training course we participated in at the beginning-

MSN Educator 1: (overlapping) yes it helped a lot

MSN Educator 2: it helped a lot to understand...to have some practical examples-

MSN Educator 1: (overlapping) to understand how it worked in practice

MSN Educator 2: to speak with the teachers and understand their needs, because we could only look at it from the point of view of the museum...I mean what [contribution] we [as a museum] could give to CLIL., but we understood what the real needs of the teachers were, and we also understood what CLIL was [laughing]

MSN Educator 1: yes exactly [laughing]

MSN Educator 1: I also think it connects quite well with the following question "what knowledges and competences are need to plan [a CLIL museum learning programme]? [question on the sheet provided by the RP], I really think the value lied in the fact that we planned it together, the fact that we had different competences-

MSN Educator 2: (overlapping) true [nodding]

MSN Educator 1: ours and yours [addressing RP], and so to reflect together from the beginning (...) then you can focus more or less strongly on the contents but- I mean think about the CLIL programme on the Lagoon. We already had a structure for that one and the first CLIL programme

we planned, the one on Animal classification, was a bit of a trial for us, which prepared us to design the one on the Lagoon

MSN Educator 2: yes, planning [the Lagoon programme] was also easier

MSN Educator 1: also because we had a better idea of the [steps] to take

MSN Educator 2: [the planning] went quicker

MSN Educator 1: but it was useful to have both the competences so as to create a product that addresses both objectives, otherwise you miss one

MSN Educator 2: yeah true

RP: well, for me it was also a journey (pause) the fact of not knowing the contents and not being able to understand them it pushed me to change perspective, and so the more we worked together the more I realised what your goals were as well as the demands of the discipline because there was a logic mmm in the way you wanted to present the contents and to engage the students with them, and [I realised] that these were both related to the discipline itself and to [the principles of teaching in the museum], and so there was a change also in the way I myself train museum educators (pause)

**MSN Educator 1:
and MSN Educator
2:** mm mm [nodding]

RP: because it's not true that all activities can work for all the disciplines...so there was also this change, at least on my part

RP: and what about the museum educator? [reading the question on the sheet]

MSN Educator 1: what competences should he/she have? [smiling]

MSN Educator 2: [laughing]

RP: this is something that they [other museums] always ask me about...

MSN Educator 2: well, the ideal museum educator should be two people in one [nervous laughter] as always

MSN Educator 1: but-t...I always feel like that contents should win [over language]

MSN Educator 2: mm yes [nervous laughter]

MSN Director: (...) I had the chance to talk about this at least twice in two different occasions and with people with very different profiles...how science

should be communicated...and in my opinion it's today obvious that a science communicator needs to be-

MSN Educator 1: (overlapping) someone with a scientific background

MSN Director: someone with a scientific background

MSN Educator 1: until some time ago it wasn't that obvious

MSN Director: no it wasn't...there's a bit of a debate, especially among journalists, not so much among the other [science professionals], but until not long ago there was a huge debate on this topic because (...) some scientists are totally hopeless in any type of communication...and also it was difficult to admit that you need a specific competence and that you needed to study for it (...) that is to communicate something complex-

MSN Educator 2: (overlapping) in an efficient way

MSN Director: adapting the contents and methodology according to the audience, age group, objectives, cultural dimension and all of this requires a very complex training (pause) now about CLIL, I'm not an expert so I can't really discuss it the way I'd be able to discuss science communication, but I was extremely surprised when I explained to my wife [an English teacher] the interesting distinction between *flipper* and *fin* (...) and the fact that this distinction becomes important when we talk about the difference between homologues and analogues structures, especially because the fact that one derives from a limb and the other doesn't is scientifically relevant-

MSN Educator 1: (overlapping) yes, exactly

MSN Director: it would be wrong to explain this distinction in a correct scientific way and then call it with the wrong terminology...so the pectoral fin is a fin and the other is a flipper...[the difference matters] so it's not just because the limbs of the dolphin are flippers, there's another more important explanation...so I remember that I explained it to my wife and at that very moment I realised that if we do run a CLIL programme then it should be delivered by a science expert, because to explain the difference between homologues and analogues [structures] you need to also know what rays are and how they evolved (...) if you haven't studied animal anatomy you don't know these things

MSN Educator 1: on the other hand the training you [addressing RP] delivered to the museum educators on how to plan [CLIL learning museum programmes], how to simplify....was enlightening

MSN Educator 2: yes, absolutely

MSN Director: absolutely

MSN Educator 1: for example the work you did on the worksheets, reducing the contents, but also the importance of asking direct questions, being very precise...and all the other strategies you taught the other museum educators, how to welcome students, how to switch to Italian when necessary...I think this is the sort of training that anyone [interested in delivering CLIL at the museum] would need even if they had an [amazing level of] English

MSN Director: exactly, this is the important thing...the fact that someone has a scientific background, he is a biologist or rather, and knows English very able it doesn't mean that-

MSN Educator 1: (overlapping) he can teach in CLIL

MSN Director: he can teach in CLIL

MSN Educator 2: no, it's something completely different [agreeing with the others]

MSN Educator 1: absolutely not

MSN Director: in my opinion this is the important message...knowing the methodology is a professional competence in itself

MSN Educator 1: now it's more clear to us that it's not only the English competence [that matters]

RP: yeah exactly, it's the methodological competence...to be able to use the facilitation strategies

MSN Educator 1: yes

MSN Director: absolutely

MSN Educator 1: but also the ability to understand the materials [worksheets] that you give because...when you start working from well-designed materials [worksheets] then you can start from them and expand (...) and to design them [sigh and looking at MSN Educator 2] we started with a lot and we reduced it progressively

MSN Director: this is the most difficult thing to explain when you propose a CLIL museum programme to an institution that has never worked with it before...there are certain objectives, but what do I need to deliver them? hhhh you need quite a lot of professional training, in the sense that...you need the people that are available, because [pause] what I see as a possible critical point is that it requires people that have a very complex professional expertise, which you can't develop in a quick way, also because a good scientific background needs to be developed through a degree and not a series of short courses, [then

you need] the English language competence, which also requires time, and then you also need a methodological [CLIL] competence...all these competences that a museum educator need to develop need to be worth it from the economical point of view [in terms of professional opportunities], otherwise why should someone make such a life investment-

MSN Educator 1: (overlapping) and study so hard

MSN Educator 2: yes true

MSN Director: just to deliver one workshop there and one here?...this is something that-

MSN Educator 1: (overlapping) it's something that we're-

MSN Director: not that WE are...it's something it needs to be taken into consideration when- for example if I had to give a presentation on CLIL during an ANMS meeting, this is what I'd say that while, in another situation, I look at the space, I have a certain background, I create two/three different learning activities, it's worth is...with CLIL instead I need to invest more time [on average]

MSN Educator 2: the [financial] stability of museum educators always makes a difference

MSN Educator 1: if you have a student that sees it one time and then decides to change job...the competences....and I mean we also said that it helped that our programmes were already designed in a way which was close to the CLIL methodology (...) in terms of how to engage with the students, that is working in groups, [having] practical activities...so it was easy from this point of view, difficult from others

MSN Director: exactly, it's an added value if you implement it where you don't have it

RP: absolutely, we had already talked about the fact that the underpinning methodology of the museum learning programmes [we normally offer] was already close to the CLIL philosophy...we found it difficult, I don't know if you remember, to find a way to help students build a definition of homologues and analogues structures...

MSN Educator 1: yes yes

MSN Educator 2: yes

RP: we first left it open and then realised that it was too difficult and took away too much time, because that's also to consider

MSN Educator 2: let's also say that we chose quite a difficult topic even in Italian

MSN Educator 1: yes

MSN Director: yes

MSN Educator 2: the one on the Lagoon was easier both to design and to [deliver] to the students

MSN Educator 1: yes, I think that at the beginning we didn't choose the right [topic]

MSN Educator 2: exactly! Both to experiment with CLIL and-

MSN Director: (overlapping) mmm [disagreeing] in my opinion, it's ok to offer different [options]...the level of this particular option [animal classification] is high, but it doesn't mean that it's too difficult...it's upper secondary school level-

MSN Educator 1: (overlapping) it just feels like there's something missing...the final part for example, the one in which you should recap, it's always done in a bit of a rush....the first part, the one in which you observe-

MSN Educator 2: yes, the one in which you observe

MSN Educator 1: it's nice...maybe the part in which you have to colour is not that suitable, because it's a bit futile for upper secondary school students

RP: Museum Educator 1 suggested to ask them to draw the limbs [instead of just colouring]

MSN Educator 2: [nodding]

MSN Educator 1: mm mm

RP: because at least they have to look at it [the specimen]

MSN Educator 2: true

RP: otherwise they just stand there and they don't understand

MSN Educator 1: yes, there are certain things that don't really work, while the one on the Lagoon works quite well [as a whole]...even from the perspective of our [museum] objectives...I've always liked the fact that students could tell about their territory even in English, given the fact that they more and more take part in exchange programmes, so to be able to tell where they live, it's nice...and I think this works...to have a vocabulary that can narrate the territory where you live is certainly an added value...so between the two topics, the one on the Lagoon makes more sense in comparison with the one on homology and analogy

MSN Director: yes yes

MSN Educator 2: yes

(...)

MSN Educator 1: maybe with some minor changes...we should rethink it...nothing major, but some changes should be made...and also maybe...while the one on the Lagoon is more accessible, the one on homology and analogy is for a more restricted audience-

MSN Educator 2: (overlapping) yes it's for a much more restricted audience, so even the museum educator needs to have a different type of competence [profile]

RP: it's also true that (pause) I've changed a lot the way I deliver it-

**MSN Educator 2:
and MSN Educator
1:** (overlapping) yes of course!

RP: because I realised that it wasn't coherent

MSN Educator 1: yes, that's what I was thinking

RP: and now I embed it in a sort of story...I tell them that they'll become scientists, whose job will be that of collecting data in the museum so as to be able to classify animals according to one specific criterium, that is the difference between homologues and analogues structures...and I could see that this is a bit of a *fil rouge* for them...so it makes sense that we first go in the museum and then we come back down in the workshop room and we do a recap...but it also changes depending on whether they've been prepared or not...the thing that I noticed is that if the language level of the students is a bit higher, close to B1, they follow me better-

MSN Educator 1: (overlapping) of course

RP: in the structure of the workshop...if their level is A2 they struggle a bit

MSN Educator 1: mm mm [nodding]

MSN Educator 2: while with the one on the Lagoon [it doesn't happen]

RP: I think it's a bit more intuitive

MSN Educator 2: yes, intuitive

RP: because you talk about-t...

MSN Educator 2: an environment

MSN Director: (overlapping) an environment...you talk about something that it's easier

MSN Educator 1: (overlapping) easier

RP: yes, exactly

MSN Director: you have to talk about something easier because we also need to think about the fact that this aspect, the fact that although two animals look similar it doesn't mean that they are phylogenetically related, it's still taught badly [in school]...lots of manuals still describe it in the wrong way, even today

MSN Educator 1: it's heavy even in Italian

MSN Educator 2: it's tiring even in Italian

MSN Director: so you start from a concept that is already complex and that they're not really familiar with, while the fact that the lagoon is an ecosystem with consists of both sea and rivers is a concept that not only is cognitively easier to understand but it's also more familiar, because you know that [the lagoon has] canals-

MSN Educator 1: (overlapping) yes, but also even if you don't know this, to describe an environment is certainly easier, even if they had to describe a glacier

MSN Director: it's the same as saying I tell you about a chemical reaction or a story, the attention that I need to engage with the former is certainly higher...with the second one I simply listen, while with the first I need to understand every single step [of the process]

MSN Educator 1: I also think that while the part with the definitions is actually quite ok, the final part with the cladogram [puffing]

MSN Director: it's difficult

MSN Educator 1: it's difficult in Italian, it's fast, it's at the end of the two hours

MSN Director: but we can change it, and find other elements especially because we're in a museum

MSN Educator 1: it makes sense to end the visit that way [with a cladogram]

MSN Educator 2: well of course otherwise why would you look for the specimens in the first place?

MSN Educator 1: [unclear because of cross talk] it's something that you try and then I tell you this is a way to classify but-

MSN Director: it should be something planned around the structure "I show you and then you try it yourself" (...) but we also need to exploit the value of doing it in the museum

MSN Educator 1: in fact the advantage of the animal classification programme in comparison to the one on the Lagoon is that they can walk around the museum-

RP: (overlapping) yeah exactly

MSN Educator 1: while the one on the Lagoon only takes place in the [workshop room]

MSN Educator 2: and this is why the one on animal classification is more time consuming because then you need to recap, and even though we reduced the number of specimens, it just didn't- we wanted to do too many things

[unclear because of cross talk]

MSN Educator 1: yes, that's why I think we need to change the end

RP: yes, also because I noticed that even the students that were less...motivated...I mean you know which ones are less motivated, you recognise them immediately...despite this, they still collaborate because they have the materials [worksheets] to complete...

MSN Educator 1: because in this case you also work on other competences-

MSN Educator 2: (overlapping) yes

MSN Educator 1: as we wrote in the teaching material, to be able to read a map, to identify.- so maybe one is not good at English, but is good in reading the map and find the specimen and, in this way, he/she is still able to contribute to the group work-

RP: (overlapping) also because from the linguistic point of view, they keep encountering the same words, and by the time they get to the workshop room, I'm not saying that they have learnt them, but at least they've seen it and used lots of times...but there's something missing, the colouring activity for example-

MSN Educator 1: yes, that needs to be changed

RP: yes, it doesn't convince me...but when with the groups I get on time to the part about the cladogram...

MSN Educator 2: it makes sense

MSN Educator 1: (overlapping) it makes sense

MSN Educator 1: and you're not always able to get to [the cladogram]

RP: it depends on their language level

MSN Educator 1: because it only makes sense if you complete the entire workshop [both first and second part] otherwise you don't understand-

MSN Director: (overlapping) you don't understand what the point of it is

RP: yes but also I had very few classes that were able to complete the definitions of homologues and analogues structures by themselves in groups (pause) even the ones that did the preparation-

MSN Educator 1: (overlapping) but I mean if the problem is the definition...just write it down for them, because if this is the reason why you're not able to get to the final activity, well...just move on, because this is less important than being able to physically complete the cladogram, which is what really gives it coherency

RP: yes, of course

MSN Educator 1: but I mean we can meet up again to try and define it better for next year

RP: yes, I also talked to Museum Educator 1 to have a term of comparison because what I think it's fundamental in the last part is to ask students questions in a certain way, I mean to structure what they're trying to-

MSN Educator 1: (overlapping) build

RP: build

RP: without giving them the definition

MSN Educator 1: of course

RP: because if you give them the definition

MSN Educator 1: you don't give them the chance to reason

MSN Educator 2: you miss the point of the whole activity

RP: you don't really help them in reasoning...but I mean (pause) this year has been different from last year

MSN Educator 1: I saw that Valeria [another museum educator] was delivering the workshop on the Lagoon

MSN Educator 2: yeah?!

MSN Educator 1: yes

RP: well, this programme [the one on the Lagoon] is going incredibly well this year

MSN Educator 1: yes

MSN Educator 2: yes yes...we got lots of requests...but we were probably able to respond to a need

MSN Educator 1: exactly...

MSN Director: exactly (...) but maybe we should talk about this after the (pause) coffee break...I just wanted to see if you were paying attention [laughing]

PP [laughing]

MSN Educator 1: did we finish all the questions?

RP: yes, maybe there's just one left...the one about the relationship with the teachers...

MSN Educator 1: yes, but I think this is something that we're missing on and not simply in relation to the CLIL programme...

MSN Director: the feedback?

MSN Educator 1: no, I'm actually talking about the possibility of starting the design of an educational programme through sharing ideas with teachers, listening and understanding their needs, not in the sense of asking them to design it, but having more of a strong relationship with them...for example the programme on animal classification for the middle school worked because the teacher helped in implementing it in the classroom-

MSN Educator 2: (overlapping) experimenting it with her classroom

MSN Educator 1: but she wasn't that competent with the IBSE methodology...she struggled with it as well (...) but having a team teaching made of [both museum staff and teachers] would be the best option...not for everything maybe (pause) I mean if you have already an idea you want to develop, you could also simply have a meeting [with a teacher] at the beginning where you do a bit of a brainstorming...so, this is what is missing a little...we're trying something like this with a teacher now for another educational programme, but I mean...there are so many teachers that could potentially give their

[contribution]...for example, there's this educator that teaches Italian as an L2 and she came with a group of migrants to the museum and now, even just to choose the right topic, before we even think about it, [it would be good] to meet up with the and listen to their needs, it would add value to our [work]...I mean this is the first step I would now take if I had to think about [a new educational programme]

MSN Director: always keeping in mind that when I bring a new person in a working group, it doesn't mean that he/she will understand how to adapt his/her idea to the museum-

MSN Educator 1: (overlapping) yes I wouldn't really involve them in the planning stage, but to listen to their needs could be our first step-

MSN Director: (overlapping) in the initial stage

MSN Educator 1: for example maybe in the case of the animal classification programme for middle school students, we made a bit of a mistake to work with the teacher so much in the designing of the module, but in her case, her profile was hybrid because she was also the expert on the method but, I mean...it's also true what [you say] [addressing MSN Director:] maybe you start collaborating with someone and you realise later that they struggle to understand the context...however, thinking about the Italian L2 programme, I'd like to start [designing it] by meeting up with the [teachers] to understand what their goals and preferred contents might be and then try to design it

MSN Educator 2: but also because I think that here in the museum we can give a "taste" of CLIL

MSN Educator 1: (overlapping) true

MSN Educator 2: that they should already- I mean, we are the "added value" of a module that they should already be developing-

MSN Educator 1: are you talking about the schools now? [addressing MSN Educator 2]

MSN Educator 2: yes for the schools...I mean we deliver two hour CLIL

MSN Educator 1: but it's two hours [in dialect with emphasis]

MSN Educator 2: but it's two hours [in dialect with emphasis], so we have the specimen that is cool, but it's part of a longer [educational] path, so they [teachers] have their goals and [our role is] to help them, I'm not sure how to explain this

[unclear because of cross talk]

MSN Educator 1: I'd like to know how they've used our CLIL workshop, though

MSN Educator 2: yes [agreeing with MSN Educator 1]

MSN Educator 1: I mean just to know if they were able to integrate it in their [curriculum], but-

MSN Educator 2: (overlapping) also because they chose it, so I'd like to know [why]

MSN Educator 1: yes, but I feel like it [CLIL] is still under construction in the school [context]...I mean the school has its speed, and since they decided to include these courses in a foreign language they've been working on how to really implement it [efficiently], like with the "*alternanza scuola-lavoro*" (...)

MSN Director: we're ok

MSN Educator 1: ok then, are we finished? Can we have a coffee all together?

RP: [laughing]

MSN Educator 2: absolutely!

RP: Thank you!

[end of transcript]

6) Transcriptions Marco Polo students' focus groups

TRANSCRIPTION FG1

Date: 18 May 2017

Class: 1st year students

Teacher: Paola T and Stefano AT

Participants: Kristina, Bianca, Agnese, Elisa, Giuseppina, Isabella

Duration: 36:00 minutes

Moderator: which section are you in?

PP: 1A

Moderator: so...did your teacher tell you what our discussion would be about?

PP: no

Moderator: no, ok

[omitted because not relevant to the topic under discussion]

Moderator: so, this will be a group discussion on the visit at the museum...because I don't remember if I told you but I'm a researcher at Ca' Foscari University and the visits in English at the museum are part of a research project...so we're trying to understand what worked well and what should be modified, from the students' perspective [as well] so that next year we can improve things ok? So, try to be honest...I'll ask you questions, but I would like- for you to interact...I mean give your opinion...if you have comments on what your colleagues say, go ahead. Can you tell me your names?

PP: Kristina, Giuseppina, Elisa, Isabella, Agnese, Bianca

Moderator: ok...let's start with the first question, that is actually pretty easy...tell us about a time you went to a museum...any museum...what you remember, who you were with

Giuseppina but that museum?

Moderator: whatever museum

Kristina: the other day, I went to a museum

Moderator: where did you go?

Kristina: something like-e-e...a natural park, in *Vicenza*

Isabella: that is a zoo [laughing]

Kristina: yes, but there is a museum inside

Moderator: yeah?!

Kristina: yes, of Prehistory

Moderator: nice

Kristina: yes, there is a sort of museum with all the animals...from Asia, from A-A-frica, from Europe...I mean they are mmmmm like mmmm they're not made of flesh, they're models

Moderator: ah-h-h alright so they're not...how do you say that in Italian?...stuffed?

Kristina: yes

Moderator: what about you girls? [addressing the other participants]

Isabella: gosh...

Agnese: nothing, I went with my parents...

Moderator: try to speak a bit louder because I only have this one [pointing at the recorder]

Giuseppina: ah but you're recording!

PP: yes, good morning [sarcastic] [group laughter]

Moderator: yes, because otherwise I won't remember

Agnese: so, I went with my parents and my sister...and it was a medieval museum

Moderator: ok...where was it?

Agnese: in *Gorizia*

Moderator: in *Gorizia*...ok...I've never been to a medieval museum

Agnese: [it was] nice

Isabella: last year I went with my school to the museum in *Trento*

Moderator: they told me it's beautiful...is that true?

Isabella: yes...it's got a lot of-even for younger kids...it's got all different games...things like that

Elisa: yeah, they're nice [group laughter]

Moderator: Giuseppina, do you remember where you went?

Giuseppina NO...I'm not a museum lover [group laughter]

[unclear because of cross talk]

Giuseppina mmmm...ok, come on, but the *Guggenheim* is not a museum...I mean...

Moderator: yes, it is a museum

PP: it's a museum [group laughter] (...)

Giuseppina ok, we went to the *Peggy Guggenheim Collection* with our teacher

Moderator: nice, but did you do a guided tour or (...)?

PP: yes

Isabella: on-n-n

Kristina: *Tancredi*

Moderator: did you like *Tancredi*?

PP: yes yes

Moderator: very interesting...he changes his style a lot (...)

PP: yes

Moderator: yeah, it feels a bit like a regression right?! In the end, he seems to go back to a more figurative type of art

PP: yes

Moderator: with those flowers...glued [laughing and the other joins in] onto the canvas...very very interesting

Moderator: alright, let's think about the experience that we did at the museum...hem...before the visit, had you ever used English outside of school?

PP: no

Giuseppina: yes-s...but not inside a museum

Kristina: yes, exactly

Moderator: yeah, where [then]?

Elisa: around...while travelling

Bianca: when someone asks me something in English, for example...“where is”-“where is Piazzale Roma?”-

Isabella: (overlapping) information

Kristina: yeah, exactly

Bianca: or, you see, my aunt had friends-English friends and so we could only speak in English to communicate

Moderator: so you were forced...basically

Moderator: eh-h...had you ever taken part in a museum visit in English?

PP: no, never

Moderator: no?! [asking for clarification]

Giuseppina: I mean in museums out of Italy, yes...but not here

Moderator: so in museums outside of Italy you had already been to-

Isabella: (overlapping) me yes

Moderator: ok

Elisa: yes, but-t...I had the headphones in Italian-

Giuseppina: (overlapping) me too in the museums outside of Italy

Elisa: you know that in museums they give you the headphones and you click on the number on the remote [meaning the audioguide]... and so, I listened in Italian [laughing and the others join in]

Moderator: what about you Giuseppina:? Did you listen in English?

Giuseppina: NO...I went to museums but I didn't take part in a tour

Moderator: you didn't take part in a guided tour

Giuseppina: no [laughing]

Moderator: alright, here are some sheets with questions on them [the moderator passes around the conversation aids sheet]

(...) the first question, 'how was participating in a museum visit through English?', you can choose one of these words and give an example...if, for example, you choose 'fun'...[say] why...[give] a concrete example ok?...I give you a few minutes to think about it

Kristina: just one? Or we can put also-

Moderator: also more...more than one

[06:14-07:09 students reflect on question 5 on the conversation aids sheet]

Moderator: which one did you choose?

Agnese: I [chose] 'engaging'...because-e-e (pause) it was nice to do-o this visit in English, also because it helps us-s more...and I also put 'easy' because...I mean, for me, it wasn't that difficult to understand the content [laughing]

Moderator: do you agree with Agnese:?

Giuseppina: yeah...I put 'engaging' and 'useful' because I had to speak in English because the content was in English and so...it was useful also for my personal knowledge and 'different' because I had never done it before...I had never been to a museum in English

Moderator: ok...what about you? [addressing the other participants]

Kristina: I put 'fun', 'engaging', 'useful' and 'different'

Moderator: ok [laughing]

Kristina: because...well...I had never taken part in a museum [workshop] in English and also because it was...other than the language...in the museum, there were-I mean I had never seen stuffed-real animals, stuffed...I kept my eyes [wide] open [miming]...to look at them...in general...so it was beautiful...engaging

Isabella: I put 'fun', 'useful' and 'different'...'useful' because it helped me to understand words that maybe I didn't know before the visit...I mean before the lessons...and 'different' because, even though I took part in a lot of guided tours in English...to do the lessons-the preparation was fun

Moderator: so, [did you enjoy] the preparation before going to the museum?

Isabella: yes, but also the museum visit itself

Moderator: in general then...did you enjoy to get out of school?

PP: heck yes [group laughter]

(...)

Moderator: and what did you put? [addressing Giuseppina]

Giuseppina: 'fun' because you worked in groups, so you're with your classmates...but it was also 'useful' because you used English in a context other than the usual things that you do at school, of communication...I mean for a subject

Moderator: do you think that it's more useful when you do a subject in English?-

Giuseppina: (overlapping) YES

Moderator: I mean, does something change in the way you learn English?

PP: yes

Giuseppina: it makes more sense, to say the truth

Moderator: why does it make more sense?

Giuseppina: because if you decide to go to study abroad, you need to know English in the context of that subject

Moderator: so...to communicate something?

PP: yeah

Giuseppina: yes, but also to be able to understand in English...science for example [laughing]

Bianca: I put 'different' and 'useful'... 'different' because I had never done an experience like this one before...I mean to see a museum...to understand in English...and 'useful' because I feel like I learnt something

Moderator: like what?

Bianca: like the names in English and also to have seen...certain things within the museum

Moderator: do you remember any of the words you saw at the museum?

Bianca: hem-m...*whale* [wrong pronunciation]

? eh-h-h?

Bianca: whale

Moderator: ah-h alright, whale [right pronunciation]

? dolphins

Moderator: dolphins...do you remember any of the animal characteristics?

Giuseppina: yeah, that sheet with all that stuff...

Moderator: yeah the famous table [laughing]

Kristina: e-h-h-h

Elisa: yes

? fins

Isabella: wings, fins, fur [laughing]...that at the moment I can't [remember?]

Moderator: in your opinion, is one visit enough to remember all those words?

PP: NO

Giuseppina: no, because you remember them at that moment...but then-

Kristina: (overlapping) I don't remember them for example

Moderator: had you seen them before coming to the museum?

PP: some of them

Giuseppina: I mean there were many, more specific which we didn't know

Moderator: so, what do you think were the difficulties?...during the museum visit...to understand or to speak in English...

PP: [silence]

Moderator: I mean what was difficult to do?

Giuseppina: to learn the words

Moderator: ok

Giuseppina: just because you had to always go and look for them

Kristina: to be on time

Agnese: I concentrated a lot on the table because I didn't know the words

Isabella: maybe, also to be on time...it would have been nice to have more time to see everything in more detail

PP: mmm yeah

Elisa: yes, we did everything in a rush

Moderator: so did you feel rushed?...you're talking about the first part, right?!

Elisa: yes, the one in which we had to look for the animals and [unclear because of background noises]

Moderator: so how to move around within the museum?

PP: yes a little bit

Moderator: did you get lost at the beginning?

PP: no

Moderator: because there were some groups that got lost [group laughter] I mean some of them got really lost...and they missed [a few things]

Kristina: oh gosh

Moderator: and so we had to do it again together (...)

Moderator: and what helped you during the visit? To understand [but also] to speak

Agnese: well, the group work

Elisa: mmm [nodding]

Moderator: yeah?! [probing for more details]

Giuseppina: the dictionary [group laughter]

Moderator: the glossary? [asking for clarification]

Elisa: yes, the glossary

[long pause]

Bianca: with the images

Moderator: the glossary with the images?

Bianca: yes yes

Moderator: the other question that you have here...number 6...there are some comments that I took from the questionnaires I administered to the students...you can choose one of these phrases or more and see which one you agree the most and why...I give you a few minutes

[13:45-14:31 students reflect on question 6 of the conversation aids sheet]

Moderator: Giuseppina, do you want to go first? (...)

Giuseppina: I put 'it's nice to experiment with English outside of the school context in a different manner and in different ways and the activities were fun'

Moderator: why?

Giuseppina: it is exactly what I said earlier [group laughter] I think it makes more sense hem...and as the activities are fun you can-n-n participate more...I mean, you don't get bored, so you're also more attentive

Moderator: ok, what did you put? [addressing Elisa]

Elisa: I put 'it's nice to experiment with English outside of the school context in a different manner and in different ways' and it was 'much more interesting than a lesson at school' because at school you get bored, and maybe you don't pay attention while at the museum it's more fun-

Giuseppina: (overlapping) you feel more engaged

Moderator: why do you feel more engaged?

Giuseppina: because it's something different from the usual

Kristina: and also because it's in group...and I think you work better this way

Moderator: so the first part that you were [divided] in groups...do you think it would have been better to [also do] something with the guide in the museum or...did you like that you were alone?

Kristina: no, you needed also the guide...it was fine...but [we also enjoyed being in] groups

Moderator: so both?

PP: yes

Isabella: when you're with your friends you get distracted after a while, but-

Elisa: (overlapping) yeah, that's true

Giuseppina: you need to balance the two things

PP: yes

Moderator: you did the second part with me, right?

PP: yes

Elisa: what did you put? [addressing Isabella]

Isabella: the same, that is A, because...it's nice to speak outside of the school context [and] in English, because you don't use always the same words, the same things, and you learn new ones and-d-d...it's also fun because you work in groups, with your friends and you can- I mean it's also a comparison, one helps the other

Moderator: do you think it was a bit different from the museum visit you usually take part in?

PP: yes

Isabella: much more interesting

Moderator: why?

Giuseppina: because you participate more...you're more engaged

Agnese: yes, exactly

Kristina: you're more attentive to see what they say

Isabella: exactly, you apply yourself more to understand, otherwise...

Moderator: because it was in English?

PP: yes

Isabella: exactly

Moderator: ah-h- ok...and if it had been in Italian?

Isabella: it would have been [nice] anyway

Kristina: I would have liked it anyway

Bianca: It would have been even easier [group laughter]

Moderator: ok...who's left? [addressing who has not taken part in the conversation]

Agnese: I put A and B and I explained it before

Bianca: I put B and C... ‘a new way to visit the museum’ and, ok, ‘it was much more interesting than an hour of explanation at school’ because maybe in an hour of explanation in English-in an hour at school, maybe you learn the grammar and you get bored, while at the museum...maybe, if someone is passionate about animals or this stuff...it’s more beautiful I think...it’s more interesting

Moderator: you have something to talk about

Bianca: yeah

Moderator: and what do you think you learnt?

? a lot of things

Moderator: a lot of things? [laughing]...like?

Bianca: *whale* [wrong pronunciation] that is whale

? *whale* [right pronunciation] [group laughter]

Moderator: so the scientific vocabulary?

PP: yes

Giuseppina: new words...I mean to use English in an out of school context

Isabella: (overlapping) in an out of school context

Kristina: yes exactly

Agnese: yeah, I agree

Giuseppina: and in a different way

Isabella: exactly

[long pause]

Moderator: which topic did you choose for the poster?

Isabella: we did “Charles Darwin” [pointing at Kristina]

Moderator: ok

Bianca: we worked on “animal classification”

Isabella: I [chose] “Carl Linneaus”

Giuseppina: I was thinking about the pronunciation [group laughter] the characteristics of classification

Moderator: ah-h ok

Giuseppina: let’s say that in Italian [laughing]

Moderator: was there anyone in your class that worked on “analogy-homology”?

?: I don’t think so

Isabella: mmmm but...it wasn’t...did they give us that topic? [addressing the others]

Agnese: mmmm no

Kristina: it was...

Bianca: there were 4 topics

Kristina: these were the topics, I think

Isabella: maybe they gave it to the 2 year [students]

Moderator: they probably gave it later right?!

Moderator: hem-m...what difference do you think there is...I mean, think about this module of ten hours...what difference is there between doing a science lesson in English at school and at the museum?

Isabella: you pay more attention so you tend to learn more things

Kristina: [unclear because of cross talk]

Isabella: at school...hemmm...you get more distracted

Bianca: exactly, because at the museum it’s something new

Elisa: exactly

Bianca: So [we liked] working in group...in a new environment, in a different way-

Agnese: (overlapping) you pay more attention

Bianca: yes exactly...it engages you more

Moderator: ok, there is a table [pointing at question 10 on the conversation aids sheet]...can you see it?...So maybe [work in pairs] you have a few minutes...think about what the positive aspects were ...the positive things and the negative things of having a module both at school and at the museum (...) I give you a few minutes and then we can talk about it

[20:36-24:11 students take a few minutes to discuss question 10]

Moderator: who wants to go first?

Agnese: we only put positive aspects [laughing]

Moderator: ok

Agnese: “We lived an experience in two different contexts, using the knowledges we acquired at school in a context other than school”
[Agnese is reading out from her sheet]

Moderator: ok

[participants talk about who is going to talk next]

Bianca: we put “recap at school what we did at the museum”... “it was a new experience”, “group work” and “learn English in a different context”

Moderator: ok

Bianca: the negative [aspect] was that we had a short time [to see] the museum

Moderator: was it too short?

Isabella: yes, we think so...we think there should have been at least two lessons [in the museum]-

Moderator: (overlapping) yeah...would you have preferred it this way?

Isabella: or maybe just one more [session in the museum]

Moderator: do you agree with them? [addressing the other participants]

PP: yes

Isabella: I mean we feel like we rushed through things

Moderator: but do you think the lessons were linked together?...the lessons at school and the museum?

PP: yes yes

Kristina: YES

Elisa: yes, of course

Moderator: did you feel like it was one entire [module]?

Isabella: yes yes

Moderator: ok [taking some notes]

Elisa: we wrote hem...so the positive aspect is that “the outing helped us to be more attentive”and “engaged”... then also “to use English outside of school in different contexts” and “to get out of school to do different activities that are always related to what we do at school”

Moderator: and do you think this is important? I mean to get out of school and do-

Bianca: because at school it’s always the same...it’s boring-

Isabella: (overlapping) boring

Elisa: you always do the same things

Kristina: also because some people tend to get distracted and be very noisy and so you don’t even understand what they’re talking about

Giuseppina: yeah yeah [smiling sarcastically like she’s one of those who gets distracted]

Moderator: ha ha she feels guilty [group laughter]

Giuseppina: but then at school, you’re just there, sitting at your desk with the teacher that TALKS, TALKS-

Isabella: (overlapping) and after a while you just get bored

Giuseppina: ...and talks and you're there...you want to go to sleep

Elisa: yes, it's true

Moderator: so you like to do things that are a bit more active?

PP: YES

Kristina: to get out a bit more...I mean I think hem-m-m...we only went to the museum one time but I wanted it to be TWO or THREE maybe...

Giuseppina: JESUS [group laughter]

Bianca: ha ha yes a week [laughing]

Elisa: a week at the museum [laughing]

Kristina: YES

PP: [group laughter]

Moderator: but do you feel the difference...don't just think about "school is boring and the museum is different"...do you feel the difference between doing an activity at the museum and an activity outside?

PP: YES yes

Giuseppina: even doing the poster at school...I mean...it wasn't amazing

Moderator: and if we had done it at the museum?

Giuseppina: eh-h-h

Moderator: I mean to present it...to present it there at the museum

Elisa: it would have been more-e-e

Kristina: it would have been nice anyway

Giuseppina: because you could also give examples with the things that were there

Moderator: do you mean in front of the specimen itself

Kristina and Giuseppina: h-h-h yes

Giuseppina: at school you're just in front of a white wall...and it doesn't make sense

Moderator: and how about next year...I was thinking, for example...what if they asked you to create a blog-

Giuseppina: (overlapping) HOW COOL! [group laughter]

Moderator: a video of you explaining something about the museum

PP: ha ha ha

Elisa: let's put it on Youtube

Isabella: but in?

Moderator: in English

Giuseppina: COOL

Isabella: but with the text underneath?...written by us?

Moderator: maybe you could prepare it before...

Giuseppina: like during the news...when they read out notes on the poster behind the camera [group laughter]

Moderator: for example (...) with the students of [liceo classico] we did a CLIL module on Epics in English...and I took them to the archeological museum here in Venice...and today they do the presentation and I record them (...) and then I put it on their website

Isabella: but what website?

Moderator: on the school website

Isabella and others: ah ok

Kristina: ha ha ha

Isabella: because then you find this website, in like 50 years from now, with you still speaking [group laughter]

Elisa: but I don't look good on video

Bianca: oh gosh [rolling her eyes]

Agnese: you can always wear a mask

Giuseppina: Jesus

Moderator: I mean the concept is this...would you like it if there was a final product that was all yours?

Kristina: well, of course

Isabella: it would be nice

Giuseppina: well, yeah

Isabella: but maybe on a topic that we choose ourselves...maybe something that is not only related to science, but also to other subjects...that we can choose ourselves...not the same subject for everyone

Bianca: like the project of the third year of middle school [group laughter]

Isabella: maybe not like that [laughing]

Moderator: so if next year they gave you the option of doing another CLIL module...would you like it about science or about another subject?

Isabella: can't we decide it ourselves for once?

PP: [unclear because of cross talk]

Kristina: let's change

Bianca: because we did science this year

Moderator: what subject would you like?

?: dunno

Kristina: no math

Giuseppina: NO

?: [history of art?]

Moderator: history of art? Why?

Isabella: mmm no...it's already difficult in Italian
[unclear because of cross talk]

Giuseppina: I would like to do art history

?: yeah nice

Moderator: what worries you about doing art history in English?

PP: TEMPLES

Kristina: I would like to do it

Agnese: yeah, I agree

Isabella: [the words?]

Moderator: what about you Giuseppina?- the specific words?

Isabella: equinus, capital, abacus

Giuseppina: yeah, but I mean in science isn't it the same thing?

Isabella: yeah, but you already study science in English

?: maybe it would be a bit difficult

Kristina: or maybe I would like....

Agnese: epics [whispering]

Isabella: yeah, I wouldn't mind it

Elisa: geography

Isabella: no please

Bianca: history would be nice

Isabella: yeah, history why not?!

?: literature

Giuseppina: literature

Moderator: and if they told you, let's do the module...well...would you prefer a module just at school or also at the museum?

PP: also at the museum

Giuseppina: also at the museum...I already said that I find school disgusting [group laughter]

Bianca: especially at the museum

Isabella: yeah, exactly

Kristina: even ONLY at the museum is ok

?: yeah, exactly [group laughter]

Agnese: yeah, ten lessons at the museum ta-da [Giuseppina: laughs]

Moderator: would it be feasible though?

PP: no no

Moderator: why do you say so?

Kristina: because we're not the only ones...

?: because then you think of it as a game

Isabella: exactly, this way maybe you don't take it seriously anymore

Giuseppina: then it becomes an entertainment

Isabella: no, it simply becomes too monotonous...then it becomes like the classroom

Giuseppina: yeah, it becomes like the classroom...exactly [laughing]

?: exactly

Moderator: ok...so it's nice to have both?

PP: yes

Kristina: it's nice when you try it the first time, but if it becomes routine than it's not as beautiful as the first time anymore

Isabella: and if we did it in art...I mean maybe everyone chooses an author they like or...like in teams

Giuseppina: every in group maybe

Bianca: maybe they choose a painting they like

Moderator: so, you would like to be in charge of the decision?

PP: ha ha

Giuseppina: of course, what question is that? [laughing]

Kristina: if you do something that you don't like-

Isabella: yeah, but within limits...because otherwise it becomes boring for us as well...we feel obliged to do something we don't like

Giuseppina: yes, but not too much...because it needs to fit within a certain structure

PP: yes, exactly

Agnese: that scheme [we were talking about]...different authors

Giuseppina: same topic

Moderator: and if the teacher told you "ok, let's create the module together?"

Kristina: oh, that would be perfect

Isabella: what's a module?

Moderator: a module is the ten hours that you did

Isabella: ah ok

Moderator: so, "let's create it together", meaning "let's choose the contents"

PP: mm mm

Moderator: would you like to be involved?

PP: oh well of course

Kristina: YEAH!

Isabella: yes, of course

Moderator: maybe the teacher gives you a topic-

Giuseppina: yes, this way we could also say what we wouldn't enjoy...we could give also meaningful suggestions for once [group laughter]

Moderator: for once [laughing]

Moderator: ok...the last question... 'how did you feel during the museum visit?' ...you can choose one or more words and...give an example

[32:23-32:55 students take a few minutes to discuss question 11]

Moderator: what did you put?

Bianca: I put 'amused', 'active', and 'engaged'...same as before

Moderator: ok

Kristina: I [put] 'proud', 'surprised', 'amused', 'attentive', 'active', and 'engaged'-

Isabella: (overlapping) oh come on! you put all of them [group laughter]

Kristina: for the same reasons I said before

Moderator: ok, but why do you say 'proud'?

Kristina: ah

Giuseppina: eh eh [laughing]

Kristina: 'proud' because-e-e...I was able to understand the words that they were saying in English...because I'm not like...I don't understand English

Isabella: "I'm not an English genius" [group laughter]

Moderator: so it was a bit of a surprise? (...)

Kristina: [yeah?]

Isabella: I put 'proud' too, because we were able to talk and understand and to do it in English [group laughter]

Moderator: and why do you think that is?...why were you able to do that in English?

Isabella: because we had been prepared...and also in the museum...and that's it

Moderator: ok...does anyone else share the same opinion?

Bianca: yeah, I felt the same way

PP: yes

Giuseppina: we're all proud [laughing]

Moderator: did you choose anything else?

Agnese: I chose 'attentive', 'engaged' and 'active'

Giuseppina: same here

Moderator: ok...is there anything else that you would like to add?

Isabella: I also put 'surprised' because I didn't expect it to be-e something so-o beautiful

Kristina: yeah [nodding]

Moderator: what did you expect?

Isabella: well, I expected the usual boring visit...you go there and walk around the entire museum-

Kristina: (overlapping) yeah, me too

Isabella: you stand there and feel like you wanna sleep and instead it wasn't like that...it was more engaging and fun and useful

Moderator: ok...why do you say useful?

Agnese: because when you have fun you also understand things more...I mean...you're more interested

Kristina and Bianca mmm [nodding]

Moderator: alright...guys, thank you very much

Kristina: thank you

Moderator: was it useful to have this discussion?

PP: yes yes

Kristina: yeah of course

Moderator: it's nice to avoid class, isn't it? [laughing]

PP: no-o-o-o-o [sarcastic]

Isabella: you wanted to skip astronomy [addressing Kristina]

Kristina: yeah, right

Moderator: well I have a friend who's an astronomer and now he's going to study in Spain

Giuseppina: you SEE he goes abroad to study in another language

[35:29-35:57 omitted because no relevant to the topic under discussion]

Moderator: ok, thank you girls

PP: thank you. Bye.

[End of recording]

TRANSCRIPTION FG 2

Date: 16 May 2017

Class: 1st year students

Teacher: Elena T and Researcher-practitioner

Participants: Luna, Francesca, Carmel, Chris, Noemi, and Claudio

Duration: 33 minutes

- Moderator:** So, this is a group discussion, which means that it's not an exam ok?!...ehm I'll only ask the questions, and then I'd like for you to interact...so if someone answers and you think you have some comments to add, do it alright?! Feel free [to share what you think]...the aim [of this discussion] is for us to understand if there's anything we should modify of the museum visit and to understand what you think you learnt, how you felt...because next year other schools will do it and [this is why] the museum would like to have a feedback (...)
Let's begin with a very easy question...one time that you've been at the museum, who you were with, where you were, what museum it was...
- Carlo:** the first time [we went to a museum]?
- Moderator:** a time you remember...
- Francesca:** last year in the same exact museum with my former teacher...
- Moderator:** oh yeah?! [you went to] the Natural History Museum in Venice? Ok...well, first of all, names...so, Luna, Francesca, Carmel, Chris, Noemi, and Claudio...this way I remember when I listen to the recording. Anyone else?
- Luna:** I went to the Natural History Museum multiple times because I live in Venice, but a month or two ago I went to the one in *Trento*, the *MUSE* and it was fantastic
- Moderator:** oh yeah?! I've never been but they say that it's an incredible museum
- Luna:** yes, go, because it's beautiful...the first part is with the stuffed animals and then when you go up [the stairs] you do experiments with science...you go to the centre where the animals are all put in a spiral...it's beautiful...huge [group laughter]
- Moderator:** what about you, guys? [addressing the other participants]
- Chris:** in fourth grade [eight years old], I went to-
- Luna:** (overlapping) aww Chris, cool, I don't remember what I ate last night [group laughter]

Chris: with four of our class mates and that day we were lucky because they were doing an experiment on birds and they had made paper wings of different shapes, which we could try on...

Moderator: aww how beautiful!

PP: [group laughter]

Chris: ... to see which [type of wing] you struggled with more, or with which shape, and we also looked at the feathers and [their] different colours, and shapes, dimension, etc.

Moderator: how nice...have you ever had a similar experience? [addressing the other participants]

Noemi: yes, I was with him in that occasion but there was also another museum that I liked and it was the one with the minerals in the mountain in *Trentino*...and I went with my grandparents a few years ago

Carmel: (...) well I went to the *Peggy Guggenheim Collection* recently to see the Tancredi exhibition...

Moderator: wow that exhibition is beautiful...did you like it?

Carmel: yes, a lot! (...)

Moderator: what about you Claudio?

Claudio: I did something very different...the museum that I remember best is the aviation museum..

Moderator: ah-h where did you go?

Claudio: I don't remember the place, but it was lovely...there was also the maze...a little one...and then there were many different types of airplanes and one of them was outside and it was really big...

Chris: well, now I remember, I visited another museum of war, II World War, and another always about aviation, where I also tried an airplane, a very little one [group laughter]

Moderator: his experiences are all very interesting [group laughter]

Chris: yes, a lot of knowledge [laughing] (...) And then when I was in *San Domingo* I went to a museum, half of which was also a zoo, and so was reserved to sea

animals, because of the coral reef, and so I could visit and admire the skeleton of a whale [unclear]

Moderator: great! Alright...let's talk about the visit at the Natural History Museum in Venice. Before the visit, had you ever used English outside of the school context?

Claudio: NO

PP: yes

Luna: yes, last year (...) we talked about minerals and so they took us outside to talk about...

Moderator: where did you go?

Luna: we went to a park near by, close to *Piazzale Roma*, where there's a hotel and-well I didn't speak, I only listened and that's it [laughing]

[unclear because of cross talk]

Moderator: so you went with [the other teacher assistant] and [the other science teacher]?

Luna: I'm not sure...

Moderator: ok, but it was in English anyway...

Luna: yes

Moderator: do you remember anything about this? [addressing the other participants]

Luna: no they were not with us

Moderator: so you were the only one?! [addressing Luna]

Luna: yes!

Moderator: right..nice! And have you ever taken part in a museum visit through English?

PP: no no

Moderator: so it was the first time?!

PP: Yes

Moderator: so, if I give you these...they're sheets (...) the first question "How can you describe the experience of participating in a museum visit through English?". You

can choose one or more of these words and give an example, meaning why you chose [that word]...I give you a few minutes to reflect and then we can share-

PP: done!

Moderator: already done?! [laughing]...alright let's wait for the others

Claudio: can we choose more than one?

Moderator: yes!

Claudio: ok

[6:46-6:58 participants are thinking about which word to choose and why]

Moderator: Claudio:, do you want to go first?

Claudio: I chose three/four [group laughter]

Moderator: just remember you have to give an example for each one

Claudio: yeah! So it was 'fun' because we worked in groups and every group [was free to move in the museum] to search and answer the questions...then, it was 'useful' because you talked in English and I'm totally hopeless in English-

Noemi: (overlapping) you're copying what I think [group laughter]

Claudio: then it was 'engaging' [unclear because of cross talk] because the more you listened in English, the more words you learnt, and it was 'different' because [cross talk] instead of doing it in the language you speak, it was in another language

Moderator: Do you agree with Claudio (...)? [addressing the others]

Chris: I [chose] 'stimulating' because, more than everything else, it made me use and reflect on the English language-

PP: yes, me too

Noemi: especially me that I'm hopeless

?: it was fun...

Luna: especially walking around the museum "no it was here...no it wasn't here"
[laughing]

[unclear because cross talk]

Moderator: ...so you liked the part in which you worked in groups?!

PP: YES

?: very much!

Chris: yeah, in fact I said that it was 'stimulating' because it made us compete with each other and so [we also reflected] more

Moderator: ok...wow, good! Ehm...did you put anything else? Carmel?...Luna? Same things?

Carmel and Luna: mm mm [nodding]

Moderator: the second [question]...these are statements that I took from the questionnaires that I administered to all the students that came to the museum...choose one or more and say which one you agree more and explain why...

[8:50-9:17 participants are silent because are working on the task]

Moderator: Francesca:, do you want to go first?

Francesca: [I chose] A, because, as I said before, my English is below zero, and listening to the others could give me...more of an incentive to learn and understand it [the English language]...and also 'it's a new way to visit the museum' because not everyone goes to a museum to study English, but prefer Italian, so it's much better to see something different instead of having someone telling you always the same things

Moderator: ok, and what did you put? [addressing the other participants]

Carmel: I agree with what Francesca said, but for me, more than a way to discover English, it was a way to boost it, because it was the first time that I learnt English through another subject...and it was nice!

Noemi: ...also it's a bit more interesting because usually you only have the grammar part, while here it was the content that interested you and so you pushed yourself to understand so to understand what they said-[that is] the content [cross talk by Chris]

Moderator: yes, what were you saying Chris?

Chris: ...that it was 'much more interesting than an hour of lesson at school' because as

she [Noemi] said, it was sort of practice...

Claudio: also because in school you always stay inside the classroom...you always listen to your teacher-

Chris: (overlapping) well, you don't always listen...maybe your mind wanders [group laughter]

Claudio: while at the museum, that was also quite...big...you moved around. I mean, I saw animal species that I had never seen before...it was interesting

Moderator: so, [do you think that] attention changes as well?!...when you are at the museum?

PP: YES

Moderator: so what specifically [did change]?...you, Chris, said before that if you're in class, sometimes your mind wanders-

Noemi: (overlapping) attention in understanding all the words, to understand the name of an animal...

Luna: (overlapping) at school you also have the text book, so you don't care about what [the teacher] says, while at the museum, you're obliged to pay attention because if you miss something you miss it all...

Moderator: so, it's difficult to put it all together?! [laughing]

Chris: above all, for example...I'm the only one to love museums, especially natural history, animals, things like that, so-but to see images in the book is very boring! and it doesn't really enchant you...instead, to see them for real, it encourages you more to reason on why it has that shape etc etc

Claudio: then, for example...also the dimensions of the animals...on the book you have a picture that is [miming the small dimensions]-

Luna: (overlapping) like your finger! [group laughter]

Claudio: then, you find yourself in front of the elephant and you say WOW [miming astonishment]

Francesca: like when you were in the sea room and you saw the shark-

Luna: (overlapping) yeah, it was beautiful there...

Francesca: ...I think it was a white [shark]...I mean it was kind of disturbing

Noemi: the room with the dinosaurs that [looked at you?] a bit like this [miming fear], because- and you didn't know where to look...

Francesca: or the heads of the giraffes hung [on the wall]

Luna: yeah...bleah [group laughter]

Luna: so for me it was more of- I mean...while in class it's more of an attention like "I HAVE to pay attention", here it was an attention-

Claudio: (overlapping) wanted...

Luna: because of my INTEREST

Moderator: and how did it go with the English language?...someone said that-

Noemi: (overlapping) me and Francesca, we found it difficult...we did it a bit together but we always felt we needed to ask [other two students] [laughing]

Francesca: the thing is that you go from the English [they teach you] in the classroom, that is the rules [and] baby sentences, to speaking about taxonomy in English and things a bit more- I mean that even in Italian, you maybe don't know that well, and so, obviously, also the words are difficult

Noemi: I agree with [Noemi] [laughing]

Moderator: what helped you the most during the group work, for example? To understand the contents in English...

Francesca: the images or if there was the animal you saw the name or if-

Luna: (overlapping) I mean with a lot of words you could get there [to the meaning] using logic...little by little

Noemi: for me, the lessons that we did before [the visit] were useful to learn the keywords that we later came across during the museum [visit]

? yeah, exactly!

? [also written?]

Moderator: ok...and did you recognise some of them? The ones that were also on the [museum] worksheets

PP: Yes

Moderator: do you remember them now?

Francesca: ehm-m-m

Luna: some of them maybe

Chris: maybe if [we looked at them again]...yes

Moderator: yeah, this is what I wanted to ask you...we had lessons before and at the museum- but would have it been useful to look at them again afterwards?

PP: yes yes!

Francesca: I think so, one time maybe [to look again] at all the-I don't know...to make a list of all the words we found, at least the most important ones

Chris: I personally think that it would have also been useful to go to the museum more than one time maybe-

Luna: (overlapping) change museum, not to go to that one but maybe to another one...to try again with other things

Moderator: in another context?

Luna: YEAH

Chris: actually, (...) we visited the museum but...in a HURRY...and we did a lot of topics...in a HURRY [group laughter] and so, in my opinion, the animal world is very big, and to understand it, you need to deal with one [aspect] at the time

Moderator: he's an expert! [laughing]

Francesca: yeah, maybe to have the time to see the words, write them down

? [unclear because of cross talk]

Chris: yes, but... what I meant was, you can't speak about fishes, and then move on straight to speak about mammals

[15:05 end of first part]

Moderator: So, what did you say Chris? That you wanted to focus on one [animal] group at the time?

Chris: yes, because it's not like they are many, but-I mean, to divide them [unclear because of cross talk] to divide them would have been better

Moderator: ok...

Claudio: another thing that is important-another thing that I liked about the museum was the mummy...

Moderator: the mummy?! Ok...

? that really creeped me out

Luna: that room was really [scary?]. . .there was that thing with three heads-the animal. . .and I looked at it and said "what is that thing?"

Claudio: [unclear because of cross talk)

Moderator: let me ask you another question, the first part, you did it in group, alone, in the museum, would you have liked to have also a part in the museum with the guide-

PP: (overlapping) no!

Moderator: with some interaction?

Chris: no because it wouldn't have been the same

PP: No

Luna: no, there wouldn't have been the same interest

Noemi: I mean, as I said before, in my opinion, with someone that stands there and talks to you-

Carmel: (overlapping) you interact less

Noemi: I mean after a while you get bored, while in that context you need to understand by yourself, you need to try and understand and find-

Carmel: (overlapping) it catches your attention more

Francesca: maybe, someone that can tell you. . .obviously, the guide cannot do this, but maybe tell you the things that are not written [on the labels] and that you don't know of the animals because you simply don't know the animals. . .maybe that would be interesting

Moderator: so [it would be nice to have] someone to ask to?!

Francesca: yeah!

Claudio: yes, but maybe. . .I mean. . .maybe if you saw something that caught your attention

and the guide keeps talking because maybe you are more people...if you wanted to stop there-e-e on that-

- Luna:** a guide for every group [laughing and the others join in]
- Moderator:** (...) what do you think you learnt?
- PP:** new words
- Carmel:** a lot of things that I didn't know in English-h...I think they will remain here [pointing to her head]
- Moderator:** [words] that are only related to science or also in general?
- PP:** no-o!
- Noemi:** also the grammar
- Claudio:** also in general
- Francesca:** no, I [learnt] only words related to science...vocabulary that obviously related to science or some words maybe a bit more-that you can use in other contexts
- Moderator:** can you give me an example of a more general word?
- ?** well everything that is related to the characteristics of the animals like...fur, [?]
- Moderator:** well, ok, this is the scientific vocabulary then, right?
- PP:** yeah...
- Moderator:** because you told me "also more general English"...in what sense?
- Francesca:** yes, but I mean, even "species", yes I know that you use it [in science], but you can also use it in other contexts, not only in...
- Moderator:** do you agree with Francesca?
- Noemi:** yes, because this was a topic...taxonomy, that I had never dealt with before and to study it in English has been [like having] two for one
- Chris:** I mean I already did it, and it is a job that I would like to continue when I grow up, but I never did it in English
- Moderator:** good!
- Claudio:** also because when, earlier, I described the context of homologues and analogous

structures, I didn't even know they existed in...even in Italian [laughing and the others join in]

- Moderator:** ok, who chose-I mean, for the poster...you chose "homologues and analogous structures"
- Claudio:** Yes
- Moderator:** did you choose it yourself or did we assign it to you?
- Claudio:** no, I chose it myself...
- Moderator:** how come?
- Claudio:** because-e-e...at the beginning I looked at the different topics and then I said "they don't really interest me"...then I tried with this one, because I didn't know what it was and I searched on the internet and I saw it had to do with the different body parts that were the same [unclear because of cross talk] or the same with different functions-
- Luna:** (overlapping) the same [structures] with different functions
- Moderator:** you remember this...[laughing]
- Claudio:** and it was very interesting to see the different animals species...what similarities they had
- Moderator:** mmm ok...but, not many people chose it [this topic for the poster]. I saw in the other classes, this was the topic that was a little avoided...why do you think that is?
- Noemi:** because there were too many questions
- Carmel:** it was much easier to deal with someone's life [Darwin for example], the things that they have done instead of the structures
- Francesca:** yeah, I think you can choose the very generic one in which you don't put anything or...if you go in the detail, especially if you have to speak in English (...) but also if you speak in Italian, it's very difficult
- Chris:** and 5 minutes are not enough...I would have done it too, but if you have to do it, you have to do it well...and there is a lot to talk about when dealing with this topic [laughing]
- Moderator:** o the guidelines that we gave you to design the poster...would you have liked a bit more support?

PP: mmm no...

Francesco I chose Charles Darwin and I didn't have problems, because I found his life and then his theory of evolution and so...

Carmel: yeah, I didn't have problems with Darwin

Moderator: ok, so that part went well...hem...what difference do you think there is between studying science in English at school and at the museum?

Luna: (...) at school you get bored...[group laughter] it's true!...because you either listen and stay there [still] or-r, as I said before, you look at the book and understand..

Moderator: ok, but think about the lessons we did together...

Luna: yeah, but they were new things, never heard them before, so it was...a new thing to discover

Giovanna you remember the things [you learn] at the museum better, because, for example, let's say we need to study a whale...to study it at school [is one thing?], but to see it at the museum with its dimensions [and] its bones, [helps you] remember it much better...

Francesca: but I think, if we hadn't said anything at school, we would have probably arrived at the museum without knowing anything...and-I mean, either you stayed much more time in the museum, so you could explain things at the museum, or it would have been impossible-I mean you would arrive without anything, so I think the lessons [we did before the visit] were very useful

Francesca: yes, it wasn't boring

Moderator: so, did you like the structure of the module?

PP: yes yes

Chris: yes, because, in comparison with the other lessons we do with our teacher...the ones we did together with you were much more...interactive

PP: yeah

Luna: yes, because we were in groups and we had to understand what we had to do

Carmel: ...also different opinions

Chris: and it was a DIFFERENT topic, because many of the things we studied with our

teacher, we had done them since we were children so to repeat it every time...

- Francesca:** also...the fact that during our English lessons or at school, whatever thing you don't understand, you can ask your teacher, so maybe you don't think about it so much, while at the museum, for example...you weren't there so we had to understand by ourselves...we had to make it [without your help]...so, obviously, we reasoned much more...
- Moderator:** it was a bit of a challenge then?
- PP:** yes
- Francesca:** yes, a bit!
- Noemi:** for me yes [group laughter]
- Carmel:** also the lessons at school and the lesson at the museum were balanced quite well
- Claudio:** yes, because you need the "theory" part...otherwise you go there and you don't know anything and say-
- Luna:** it's beautiful [sarcastic]...ok [mimes 'leaving' by getting up from the chair]
- Moderator:** so you liked the structure?
- PP:** yes
- Moderator:** but do you think the lessons were too distant from one another?
- Francesca:** maybe, the oral presentation...I mean-maybe because the teacher was absent a few times, so...but, between the museum and after-I mean up to the museum [part] they were [ok]...but after the museum we did-we had a bit of a break, so maybe you tended to forget a little bit...
- Luna:** yes, we interrupted science in English and went back to Italian...
- Claudio:** we went on a school trip as well
- Francesca:** yes, we moved to talk about chemistry and then back to the animals
- Moderator:** so there was a bit of confusion-
- Francesca:** yes, it would have been better if it had been all in one block
- Moderator:** without disruption

Claudio: also because we did the chemistry test after three weeks of finishing the lessons on chemistry [unclear because of cross talk]

Carmel: I mean it's also nice that we had to present a poster without having to complete the usual test

Chris: yes, but you also asked us to organise it ourselves

Moderator: yes, but in your case, each person had to present one poster, while in the other classes they had to do it in group, would you have liked it more?

Noemi: I would have liked it if it had been in pairs

Francesca: in my opinion, maybe it's more fun to do it [in group], but as we always worked in groups, maybe [with the poster] at least you have a moment in which you have to understand-I mean you realise how many notions you have gained...otherwise you always ask the others or...

Carmel: also because when working in group...she studies a part, he studies another part, I study another one, but we don't know everything-

Noemi: (overlapping) we don't know anything

Carmel: only when you do it alone, you can learn everything

Francesca: I think it's nice to work, as we did, in groups before and then alone

Moderator: ok...mmm...if you think...how you felt during the visit...the last question...I put some words...

Francesca: 'engaged'

Moderator: think about it a second and try to give an example as well-

Noemi: (overlapping) 'anxious' because...I don't have a good relationship with English, so I was like "what do I do?! And If I make a mistake?", so I just shut up...

Moderator: and do you feel more relaxed now in comparison to before?

Noemi: YES

Moderator: so if they asked you to-

Noemi: (overlapping) I could do it easily, that is, if I work on it then I can...

Moderator: ok...

Francesca: I think 'anxious' because...I mean we literally got lost in the museum, we went totally in the wrong direction, so to just find the rooms, follow the map, I mean...I was a bit anxious for that...'engaged' and also 'attentive' because you had to be careful, even the audios...you needed to listen...word by word...to understand

Chris: also 'stimulated', as I said before...

Claudio: I felt actively engaged, but...how can I say this...even a bit more...because, for example, when I entered in the rooms I felt like I was entering the animal world, how they reacted...it was very...

Moderator: was it the first time for you Claudio:?

Claudio: to see the animals yes

Moderator: and if they told you to do a module of science or art history...would it be ok to have [all the lessons] in class or would you also like the part in the museum?

PP: also the part in the museum!

Noemi: especially if it's an art [museum]...even better

Moderator: why?

Francesca: because of the images...

Noemi: the images, the pictures, the paintings-

Chris: in most cases the ones in the book are of a very poor quality

Noemi: (overlapping) you need to see them with your eyes

Moderator: but is it also because you're interested [in art]?

PP: yes yes

Carmel: I'd prefer science, because I like science better, but also art history [is ok]

Moderator: so it's not only the fact that it was in English, it's also [important] what you do in English

PP: yes

Noemi: as Claudio said, it doesn't make sense to do it at school, to find a whale or a Van Gogh painting [laughing]...a miniature version of it

Carmel: for example, we studied the Greeks and we studied the metops...and we went to the museum in Sicily and we found the metops, and we all thought they were this big [and instead they were] higher than us

Chris: (overlapping) higher than us

Carmel: and we were all [miming surprise] because we thought they were small like this [miming small dimensions]

Moderator: so you were a bit fascinated, right?

PP: yes- [unclear because of cross talk]

Claudio: also because maybe they tell you...I don't know...maybe [when talking about] movements...now I don't know...for example in the Colosseum...I've never been to see it, you know it's big but then when you're there you realise that it's [huge?]

Francesca: yes, I saw it and then-because we were just turning the street and we saw it at the end of the street, huge and-d...it's a bit of a shock for you

Moderator: yes, of course...

Luna: like Athena-

Francesca: (overlapping) exactly!

Luna: ...that is inside the Parthenon and they say it's 16 mt tall but...you don't realise how tall it is [until you see it]

Francesca: (overlapping) you can't understand how tall it is-

Carmel: (overlapping) I compare it to a house...you don't understand the dimension anyway

[13:07-15:20 omitted because not related to the object under discussion]

Moderator: Do you think that the school should organise other similar experiences?

PP: YES

Chris: ...and also more than one time

Francesca: and in other subjects, that is history of art...let's explore another subject-

Moderator: what if it [was organised by] the English teacher?

Francesca: yes, but maybe together with the art teacher-so she's more prepared in terms of the paintings

Moderator: so you want that [the focus of communication] is on something concrete

PP: yes

Francesca: ...other subjects...

Luna: for example, history

Francesca: yes, also history

Luna: also English itself

Francesca: yes, for example, in the third year you study literature, so maybe...

Luna: also philosophy...

Moderator: why do you think it's better this way?

Francesca: because you have a topic you're interested in, while to just speak of English as a language and its rules is more boring...I learn them and I forget them every time, but [if] you use them outside [in the context of another subject]...it's like I had to talk to people in English-

Luna: (overlapping) it helps you also when you will be older and you will have a job, let's say you have someone speaking in English that asks you something strange and you know

Claudio: I think that, from a certain point of view, it also makes you more interested in school...because it's useful...I don't know...maybe to collaborate with, like, museums with schools, so that, during lunch time, you can go and visit them

Moderator: so, [do you mean] having a collaboration?!

[unclear because of cross talk]

? yes, because you learn, for example in this case, science and also English [group laughter]

Moderator: so, it's like you gained something out of it?

PP: YES YES

Luna: you can have a future...who knows where you will work...you could work in a museum as a tourist guide [cross talk]

Francesca: for example, my sister did something-she attended the Marco Polo [school] too...and they had to exhibit...it was a museum and a company...I can't remember the name of, in English...and they had to deliver the tour in English

Moderator: mmmm...and is it something you would be interested in doing?

Francesca: well-

Chris: (overlapping) maybe with a bit more of time

Francesca: in the 5th year maybe yes [group laughter]

Luna: I would like it because I love languages...but as I don't have a good relationship with English, it's a bit of a trauma [laughing and others join in]

Moderator: yes, maybe you could improve

Luna: yes, I hope so...

Moderator: also because you know that in the 5th year you will probably have much longer modules in English... instead of having 10 hours maybe they will 20 or 30...would you feel anxious?

Luna: yes, I would

Carmel: no, I like English

Moderator: Chris is looking at me like [miming scared]

Francesca: well, a little bit yes...if you find yourself in situations in which you understand nothing at all, but I think- [cross talk]

Moderator: but if it was structured in the same way as this [module]? [background noises]

Luna: like this, yes

Chris: maybe like this it's [better?]

Moderator: like group works...

Luna: maybe I would understand in this way...

Francesca: the others are outside of the classroom so maybe our lesson is finished

Moderator: ok guys, let's go. Thank you!

TRANSCRIPTION FG 3

Date: 16 May 2017

Class: 1st year

Teachers: Elena T and Researcher

Participants: Enrico, Paolo2, Eleonora, Luca, Jessica, Gloria

Duration: 42:39 minutes

Moderator: This is a group conversation. So, what does it mean? It means that you need to interact. It's not an interview between me and you. I only ask the questions, but then I don't talk-

?: (overlapping) [unclear]

Moderator: And you talk, all of you...so wait, [you are] Sebastiano, no sorry Enrico, Paolo2, Eleonora, Luca, Jessica, and Gloria

Moderator: The first question is really easy. Oh...rules...if someone is talking, please don't interrupt...this is especially for you Enrico [laughing]...it's important that you listen to the others, otherwise it will be difficult for you to comment [on what the others are saying]...if you feel like commenting of course

Moderator: So the first question is very easy...tell us about a time you went to a museum...a museum in general...a time you remember...who were you with? Where were you?

PP: (long pause) [group laughter] [students look at each other and smile embarrassed]

Moderator: Hmmm this is going to be fun [group laughter]

[01:21-02:04 omitted because not relevant to the topic under discussion]

Moderator: Do you want to go first Eleonora? A time that you remember...

Eleonora:: Hmmm...I don't know what to talk about [whispering]

Moderator: A time that you remember [addressing the others]

Enrico: You can tell us about it yourself because you do this job [laughing]

Moderator: Exactly, if I told you it wouldn't be interesting, would it?

Luca: So...

Enrico: Whatever museum?

Moderator: Yes, whatever museum... a time you went to a museum

Enrico: But do we need to say it one at the time?

Moderator: It doesn't matter

Enrico: We went once, me, her and [name of one of their teachers]...[group laughter]...do you know who [name of one of their teacher] is?

[02:30-02:42 omitted because not relevant to the topic under discussion]

Enrico: We went to the Peggy Guggenheim Collection

[02:46-03:39 omitted because not relevant to the topic under discussion]

Eleonora:: Come on...finish your answer

Enrico: Do I need to continue?

PP: Yes

Enrico: We browsed around the museum...but-

Eleonora:: We took pictures with the paintings

Enrico: You took pictures with the paintings [sarcastic]...I didn't take pictures with the paintings [group laughter]

Moderator: With the Pollock's?

Eleonora:: Yes...and also-o-o...what other ones? [addressing Enrico]

Jessica It's a moment to be together

Enrico: (...)

Jessica: It's a moment to be together

Moderator: True

[04:09-04:42 omitted because not relevant to the topic under discussion]

Moderator: Before the visit to the Natural History Museum...had you ever used English outside of school?

(...)

Enrico: [group laughter]...yes, to give directions to tourists...there were some Indian tourists and they asked me to accompany them from San Tomà to St. Marks

[05:10-07:56 omitted because not relevant to the topic under discussion]

Moderator: Had you ever taken part in a museum visit through a foreign language?

PP: No

Paolo2: Hmm...yes, in Germany

Enrico: I [went] to Portugal...and also-o to Germany, maybe...because in some parts there isn't Italian and so the language was...German, French, the language of the place (...)

Eleonora:: I hadn't

Moderator: Ok, you hadn't...what about you [addressing Gloria]

Gloria: No...this was the first time

Enrico: [unclear because of cross talk]

Jessica: Yeah, but it was nice

Moderator: Yeah?!

Gloria: It was something different

Moderator: Yeah, in fact now I give you these sheets...there are some questions...I'd like for you to think about the first question on the sheet, for a second [the moderator passes around the conversation aids sheet]

Moderator: 'How was participating in the museum visit at the Natural History Museum in English?' You can choose one or more words and you need to give an example...a reason...I'll give you five minutes to think about it

Eleonora:: Shall we write it here?

Moderator: Hmm...no...well, if you want to take notes...but, we'll talk about it afterwards...

[09:02-11:25 students are thinking about question n. 4 on the conversation aids sheet]

Moderator: So...who wants to go first? [cross talk]...do you want to go first, Eleonora?

Eleonora: It was 'useful'...because we learnt-well, at least I learnt new words...and it was also 'fun'...because we were together and we had fun...it was a different way to visit the museum...hmmm...it's different from a normal visit to the museum because, first of all, it was in English and I had never taken part in a museum visit through English...and also we kind of helped each other...if one didn't know a word, maybe there was someone else who knew it...we also helped each other...we had fun

Moderator: Do you agree with what Eleonora said?

PP: yes

[12:10-12:17 omitted because not relevant to the topic under discussion]

Eleonora: Come on, that's not important now [scolding the others for going off topic]

(...)

Moderator: Do you agree with what Eleonora said?

PP: Yes

Moderator: What did you put?

Luca: 'Different'

Enrico: [I put] 'different' too...because-

Luca: (overlapping) because-

Moderator: (overlapping) wait, let him finish and then you can talk [addressing Luca]

Enrico: We had to look for the specimens that were listed in the...worksheets...and you didn't have to talk just for the sake of talking

Eleonora: Yes, we had to walk around the museum, looking at the specimens, one by one...

Moderator: So, you liked the fact that it had a bit of a structure?...an objective?

PP: Yes

Luca: [It was] more engaging

Enrico: Exactly!

Moderator: Yeah?!

Enrico: YES

Moderator: Why was it more engaging?

Luca: Because you remember things even better...

Eleonora: You remember things even BETTER...

Luca: Yeah, you remember them- [unclear cross talk]

Eleonora: While if you go-o...to a museum and look around like this [without a goal]...you don't recall things quite as much...this way was much nicer...at least, I liked it a lot

Moderator: ok [laughing]...and-d...Enrico, what were you saying?

Enrico: That it was nice because it had a goal and it wasn't like...going to a museum by yourself, that could be...let's say...more to look at things you like and not only at what is interesting...so instead of focusing on things that visually attract you-because there are several works in a museum, and you haven't studied everything or you don't know everything...and so it was beautiful that with this trail you looked at more things and in a more in depth way

Moderator: And how did you feel with English?...was it difficult?

PP: no...

Luca: hmmm...some things were difficult

Eleonora: Some words...

Enrico: Some words...but with the glossary [was ok]

Luca: Exactly!

Moderator: So, what helped you the most in understanding the contents?

Paolo2: the lessons that we did before the museum visit

Luca: Yes, that too!

Eleonora: Yes, the lessons we did in the classroom

Moderator: what specifically? What [aspects] of the lessons we did before [the museum visit]?

Enrico: Not you [addressing the moderator]

Moderator: Thanks [group laughter]

Enrico: No, ok I'm joking...

Moderator: Well, I don't mind...I'm interested in the feedback, because next year...we want to make it better

Enrico: Yeah, that's better...maybe you could have coloured worksheets

Eleonora: Oh come on! [rolling her eyes]

Moderator: (...) so you didn't like the worksheets? [laughing]

Enrico: They're in black and white...gosh, they were useful but...in black and white, come on...with the grey paper, come on [group laughter]

Moderator: Well, it's the recycled paper they give us at university [laughing]
(...)

Moderator: Come on, let's come back to what we were saying about the lessons before [the visit]

Paolo2: The words also...[the fact that] we learnt some of the words before...it was useful, in my opinion

Jessica: Also the worksheet with the animals...the mammals...that was useful too

Moderator: Excellent...and what helped you during the museum visit?

Jessica e Eleonora, Enrico: The glossary!

Eleonora: A lot!

Enrico: surely not the other colleagues [cross talk] (...)
the problem was that groups weren't really made with a logic and I was with [name of other student] and she was scared of the dead animals-

Eleonora: (overlapping) Yeah, she started crying

Enrico: and I can't do a visit with a person that is scared...it's not her fault, poor thing...maybe you had to censor [group laughter] (...)

Paolo2: But it's a museum of animals...what should they do? Not show them?

?: [Why was she scared?]

Enrico: Because it bothered her...[cross talk]

Moderator: Because she's vegan

Eleonora: Yes

Enrico: Yeah, it's right then

[16:39-16:59 omitted because not relevant to the topic under discussion]

Moderator: Wha did you put? [cross talk: Enrico is talking in the background]

Gloria: I put 'engaging', because it encouraged me to speak in English much more than in the other days...and also it was 'useful' and 'different'

Eleonora: A different experience

Gloria: Yeah, exactly [group laughter]

Moderator: Differen from what?

Gloria: Different from what we usually do-

Moderator: (overlapping) Enrico, stop it, or I'll send you away

Gloria: [different] from what we usually do in a museum

Moderator: Why?...what are you used to in a museum?

Eleonora: maybe you even go as a group, so you have to wait...maybe you're front of a work that you find boring and you're forced to stay there still and look at it...while here you also went on, you didn't look at all the statues...specimens...but you went on...and you only stopped on some of them

Moderator: so you liked the fact that there was a structure but you were also free to focus on what you wanted...to spend a bit more time on some things than on others?

Eleonora: I think so!

Moderator: ok, look at question n. 6...these are phrases that some of your colleagues put in the questionnaires. You can choose one or more that you agree with and say why

[18:31-19:15 students are thinking about question n. 6]

Moderator: Done?...ok, who wants to go first?

Paolo2: I put 'b', because it says 'it was much more interesting than an hour of explanation at school'-

Eleonora: Yeah

Gloria: Yeah

Paolo2: Because at school you read and see-

Eleonora: (overlapping) but at school you're sitting at the desk [listening]

Gloria Exactly, this [the museum visit] was much more interesting

Luca: It was didactic

PP: And what do you mean by didactic? [group laughter]

Moderator: Paolo2, what do you mean by "you read and see"? Can you be more precise?

Paolo2: I mean that what you read, you can only imagine...but you don't know it...instead, when you-u-u [both] read and see it you understand much more

Eleonora: Exactly!

Moderator: ok...do you agree guys?

PP: yes [nodding]

Moderator: and what else did you put? [addressing Jessica]

Jessica: 'a new way to visit the museum'

Luca: Exactly

Jessica: eh...because-e [smiling embarrassed]

PP: [group laughter]

Eleonora: As I said earlier...you're not with a guide, [so] you don't have to always stay still...in group...and you're more free

Moderator: Ok

Eleonora: And also...

Luca: also because, before, you didn't do [things like this one]...I mean I never saw a school student that visited a museum...that visited a museum in English

Eleonora: [cross talk] in fact, then I put that 'it's nice to experiment with the English language outside of the school context, in new subjects and in new ways'...because it's also a better way to learn English

Moderator: ok...do you think there's a difference between using English in the classroom and using it outside?

Eleonora: because outside you need it more...meaning, that you're more encouraged to speak in English [looking at the others]

Moderator: mm mm

Gloria: Even this experience...I mean...I don't like English [group laughter]...but I liked it at the museum...because it was different from being at school...and listen...

Enrico: it was a bit like a challenge, to speak in English at the museum

Gloria: h-h-h yes!

Moderator: was it like a challenge?

Gloria: a challenge [laughing]

Enrico: it was like the last match of the championship (...) [laughing]
(...)

Moderator: what do you think you learnt during the museum visit? (...)

Luca: English...

Paolo2: English and also the animal species

Moderator: also the animal species? [laughing]

Enrico: at the beginning I couldn't understand anything...like the invertebrates

Luca: [it was good because we learnt about?] differen subjects

Moderator: so, both subject contents-

PP: Yes...yes

Jessica: Yes, even though I don't know to what extent they will be useful to me...that's the point...because I learnt English on these scientific words...but I don't know to what extent they'll be useful to me

Gloria Yeah, maybe if you choose a specific school in which-

Jessica (overlapping) yeah, exactly

Gloria: But it was nice

Jessica: Yeah, it was fun anyway

Moderator: and if they asked you to do something similar but in an art museum? Would you find it more useful?

Jessica YES

Eleonora: Well, in this case of course, because we chose to attend a school related to art

Paolo2: yes

Jessica yes

Gloria If we had chosen to attend a more scientific school, where you also have to look at animals, maybe it would be more interesting...I mean more useful

Moderator: Ok...

Gloria But it was something different

Moderator: Do you agree Luca?

Paolo2: I don't agree

Moderator: you don't agree? Why?

Luca: because I think that nowadays you need this topic a lot...I mean you talk much less about art than science...in fact, for example, I discovered that if a meteorite

had fallen 30 second later, dinosaurs would not extinct...I mean...I think it's so very important nowadays, to know about...science and animals

Gloria: Ok, that I agree with but...
[Cross talk: the moderator asks Enrico to stop disturbing the others and to go back to his classroom]

Luca: I mean...I think it's also an opportunity to then get a job

Eleonora:: Yes, it's important but...too look at animals like this...

Gloria: It would also be more profitable

[23:50-24:14 the moderator asks Enrico to stop disturbing the others and to go back to his classroom]

Moderator: I'm sorry Eleonora:, what were you saying?

Eleonora:: Hemmm

Gloria: she doesn't remember anymore [whispering]

PP: [group laughter]

Moderator: ok, listen...what topic did you choose for the poster?

Eleonora:: Carl Linneus

Moderator: Carl Linneus

Luca: Animal classification

Moderator: animal classification (...)

Enrico: I didn't choose [it]...they changed it

Moderator: And what did the science teacher give you?

Enrico: *biological character* [pronounced /ʃ/ instead of /K/]

Moderator: CHARACTER [pronounced correctly]

Enrico: Well, ok whatever...the science teacher obliged me-

Moderator: To choose that one

Jessica: [I chose] Darwin

Moderator: so, why do you think no one in your classroom choose homology/analogy?...that is the topic we did at the museum

Luca: Because it was the most difficult from the title

Eleonora:: Exactly...it was the most difficult

Moderator: Did it seem difficult?

Jessica e Eleonora:: Yes

Moderator: even after the visit at the museum?

Eleonora: well...in comparison to the others that were a bit easier...in our opinion, that one was a bit more difficult

Luca: [unclear] because students are all lazy all right?

Moderator: Well, but it doesn't mean anything

Eleonora: It was a bit more difficult to describe-

Luca: (overlapping) I chose animal classification, because I was interested in it...partially...but also because, in comparison to...THOSE...it felt more within my reach [group laughter]

Moderator: so, after we came back, do you think it would have been better to talk about what we had done at the museum...I mean [revise] homologues and analogous structures?

Enrico: Maybe so (...)

Paolo2: I don't know

Eleonora: Maybe, not everything...but something

Moderator: yes...to revise it

Luca: A lesson...

Moderator: A lesson?

Luca: yes, to consolidate what we had done at the museum

- Eleonora:** Yes...also to see if we had understood...
- Enrico:** exactly...also because we had this [big] space [time gap]...and because we did the poster later on...in that space [time gap], I'm not saying that we forgot, but our memory wasn't fresh anymore...as [it would have been] right after the museum visit
- Moderator:** ok...do you think the module had too many [time gaps in between]? Should it have been more compact?...with lessons more close together?
- Enrico:** yes, maybe...it depends...not the part with the lessons, but maybe the poster...and before doing the poster, [it would be good] to have a lesson after the visit and not to do the poster after such a long time, because in that time-...and maybe give a guideline for the posters, especially for those a bit more complicated, like the one that I did...the one that no one did...that could be a bit more complicated (...)
- Moderator:** alright...do you agree with Enrico? [addressing the other participants]
- Eleonora:** Yes...the time gap in between the lessons was ok...but maybe too much time passed [between the lessons] and the poster
- Luca:** [cross talk] we'll do it again next year, WON'T WE?
- PP:** [group laughter]
- Moderator:** Would you like to do it again?
- Eleonora::** YES_[cross talk]
- Moderator:** [cross talk] in science?...or in another subject?
- Eleonora:** [cross talk] also in another subject
- Enrico e Luca:** also science...
- Enrico:** maybe in another museum
- Moderator:** so, if they offered you to do another module...always CLIL...science or art in English...[would you like it to be] only at school or both at school and at the museum?
- PP:** Both at school and at the museum!

Luca: Also something else

Eleonora: It's something different

Jessica You understand what you're studying

Moderator: why?...also something else? [unclear because of cross talk]

Moderator: Ok, one at the time (...)

Eleonora: It's more stimulating

Jessica You understand [things] better

Moderator: What do you mean by "you understand [things] better?"

Eleonora:: At the museum you pay more attention-

Jessica: (overlapping) EXACTLY

Eleonora:: Because if you're at school...[you try to] concentrate and listen but maybe you don't remember things...at the museum you see them and so you pay more attention

Jessica: mm mm [agrees with Eleonora:]

Eleonora:: It's also something different

Moderator: Do you agree? [Moderator: asks only Jessica; the others are chit chatting in the background]

Jessica: Yes yes

Luca: I think it's also because you rest your brain before getting there [group laughter]

Moderator: what do you mean by "you rest your brain before getting there"?

Luca: because at school, to stay five hours [sitting at a desk]...I don't know, maybe it's the last hour and you're TIRED and you don't pay attention...while THERE [at the museum]...if you have to walk to arrive at the museum-

Enrico: (overlapping) you're more encouraged to study...I mean you're more encouraged to learn than in the classroom, because when you're in the classroom [unclear because of cross talk]...I can attend this lesson [meaning CLIL] but, even if it's different from what we do normally, it's always a lesson with a teacher...while if you do it at the museum-

- Luca:** (overlapping) it's more fun
- Enrico:** ...and it's also more visual because you see what you're studying...then because it's also in English, you also have the aspect that...tests you and so you're also encouraged to push further to understand what you're doing than in class
- Eleonora::** (overlapping) you also have more fun...without being locked up in the classroom
- Moderator:** hem...so in pairs...think about two positive and negative aspects of doing an integrated module, both at school and at the museum. Enrico,
- Enrico:** two negative and positive aspects...?-
- Eleonora::** I'm sorry...what do you mean?
- Moderator:** I mean...hmmmm...think about the entire module-
- Eleonora::** (overlapping) the one that we did in science (this year)?
- Moderator:** Yes, this one that we did in science...exactly...what was the positive aspect of having both the part at school and the part at the museum...ok?
- PP:** ok..
- Moderator:** think about it in pairs and then-
- Enrico:** (overlapping) do we need to write it [pointing at the table on the conversation aids sheet] or we can just discuss it orally?
- Moderator:** you can write it-t-t...as you want, if you want to take notes...talk it over for five minutes and then we can discuss it
- PP:** [students discuss in pairs]
- Enrico:** can you repeat the question?
- Moderator:** think about the module that we did both at school and at the museum ok? On the basis of you experiences...what went well and what didn't work

[30:37-33:30 students discuss question n. 10 on the conversation aids sheet]

- Enrico:** the positive [aspect is that] you can connect subjects that are taught in different languages. For example, science is usually taught in Italian, and English in English and when they are integrated [cross talk], maybe you're able to better connect a subject taught in Italian in other languages as well...if you go abroad

Moderator: ok, so you're also able to transfer contents from a contest to another?

Luca: the negative [aspect] is that the science words are complicated in English

Moderator: Is it difficult to remember them?

Luca: Yes like [unclear]

PP: What?! (...)

Moderator: Did you put the same Paolo2?

Paolo2: Yeah

Moderator: Ok...what about you girls? What did you put?

Eleonora: that you are more attentive and concentrated at the museum, while you only listen with partial attention when you're in the classroom

Moderator: Mm mm

Eleonora: Then-

Jessica (overlapping) it's also different from staying in the classroom...because you can better experiment with the language

Moderator: Ok...what do you mean by "you can better experiment with the language"?

Jessica Hmmm...you're more stimulated...to speak it, [because] you're talking about concrete things

Eleonora: You don't get bored

Jessica: Exactly

Eleonora:: The negative aspect was that there was too much of a time gap between the lessons and the museum visit and the poster...maybe we even missed some of the [concepts]

Moderator: Ok...perfect...the last one on the sheet [pointing at the conversation aids sheet...wait, Enrico...what were you thinking? I had totally forgotten [group laughter]

Enrico: I don't think there were any negative aspects apart from that of time that maybe wasn't well managed...if lessons had been more closed together, it would have

been better, because it would have been more organised...it was a bit-t-t disorganised, in my opinion...too much for a time gap...the positive aspects were that we [had to opportunity] to learn something in a different way, because we were more engaged...and also to use English within a subject, like science, is-...anyway, the difficult words were explained and everything was explained in such a way that it was like we were learning through Italian-

Eleonora:: (overlapping) it was easy to understand

Enrico: Exactly...and so it wasn't something useless...we learnt something and we learnt through another language

Moderator: Well...what if we had done the visit in Italian? Would you have liked it anyway?

Enrico: Hmmm maybe-

Eleonora:: (overlapping) it would have been different

Enrico: Maybe not the same...

Eleonora:: Yeah that's true

Moderator: Why?

Eleonora:: Because we were encouraged to speak in English...and to learn also words in English...and if it had been in Italian maybe we would have already known those terms and it would have been more boring

Moderator: So...you liked the challenge part?

PP: YES

Eleonora:: Yes...to try and speak in English

Moderator: Ok (...) how did you feel during the visit?

Paolo2: A bit anxious

Moderator: Why?

Paolo2: Because it was a race [cross talk] because who finished first won [muffled sounds, Enrico and Luca seems to disagree]

Eleonora: I put 'amused' because it was nice, 'attentive' because I paid more attention, 'engaged' because you had to try and speak in English and it was a bit of a challenge...and you were helped by the rest of the group and also 'actively

involved' because we split up our duties

Moderator: Ok...what did you put? [addressing Jessica]

Jessica: Same things [laughing]

Moderator: Same things? Same reasons or you have a specific example?

Jessica: No, in general...that is the point

Moderator: Ok...what about you Enrico?

Enrico: ehhh I was engaged...I felt quite actively involved in the museum visit, because, generally speaking, when you go to a museum with a guide and your class...usually, you listen only to the guide and maybe you ask them questions, but it wasn't like that...it was more like a game...something different...it didn't even feel like you were doing something school related and so it was interesting...

Eleonora:: Maybe if you went with the [entire] class (...) you paid attention to what you wanted and what didn't interest you, you left it there and you acted like you were listening but you weren't

Enrico: So we paid more attention

Moderator: hmm...ok!

Enrico: it was a good experience...different

Moderator: in your opinion, is it important for school to promote experiences outside of the classroom in English or in another language?

Eleonora:: YES

PP: yes [cross talk]

Moderator: Why do you think it's important?

Eleonora: Because it could useful to you

Enrico: It's life now-

Paolo2: (overlapping) if you don't know English you don't go anywhere

Eleonora: Exactly

Moderator: And these experience can help you?

PP: YES

Eleonora:: You learn better [cross talk, unclear]

Moderator: Why do you learn better?

Eleonora:: It's an easy way to learn because you look at things...and also with the help of your peers and knowing a bit the new words they get stuck in your mind...like we did, looking at the animals...while if you have to stay in the classroom and listen to your teacher that speaks, you pay less attention

Moderator: Ok, do you think that one museum visit is enough?...to learn the words...or?

Enrico: Yes, because we did the preparation before going to the museum

Eleonora: Yes, because we already had the basis, because we worked in the classroom

Moderator: Do you remember any of these words?

Enrico: Yes

Moderator: What do you remember?

Enrico: *biological character, physical character* [group laughter]

Paolo2: *invertebrate* [mispronounced]

Enrico: *Vertebrate* [mispronounced]

Eleonora:: *Mammals*

Paolo2: *Reptiles...carnivores* [laughing]

Enrico: (...) I don't remember right now because we didn't have the chance to consolidate it

Moderator: Do you remember any of the morfological features of the animals?

Paolo2: Exoskeleton...what was it?

Moderator: *Backbone?!*

Paolo2: *Backbone...that was a cool word!* [group laughter]

Moderator: Backbone...

Paolo2: There was the *exoskeleton* (...)

Moderator: listen, we were to organise another visit at the museum in English...natural history or something else?

Paolo2: ASTRONOMY

Eleonora: Something else

Luca: We have already been to the Natural History Museum

Jessica: Something else, because we have already visited this one

Moderator: So for example, for next year, if we have again science...would you like a different museum from that of Natural History?

Enrico: yes, but always with the same method...lessons before in preparation [to the museum visit], the museum visit and the lessons afterwards

Eleonora:: To be actively involved

Jessica: a maybe with a differen time frame

Moderator: What do you mean? More time...?

Jessica: Less time gaps, because if there's too much [between a lesson and the other] then-

Eleonora: (overlapping) you forget things

Moderator: was it difficult to then go back to learn in Italian?

Enrico: no...because of the time gaps..but -

Eleonora: (overlapping) different

Paolo2: (overlapping) it was boring

Enrico: We also had classes in Italian, in the meantime, and so we didn't get so used to the lessons in English

Moderator: Why was it boring?

Paolo2: [cross talk] because it was in English (...)...it was boring to go back to school and do just science

[End of recording]

TRANSCRIPTION FG4

Date: 19 Apr 2017

Class: 2nd year students

Teacher: Elena T and Researcher-practitioner

Participants: Sandro, Rebecca, Maria, Anna, Paolo and Giulia

Duration: 35:00 minutes (ca)

- Moderator:** let's start with an easy question...tell us the first time you went to a museum...a visit that you remember in a museum
- Anna:** hmm...when I was in year 5 [10 years old]-
- Rebecca:** (overlapping) any museum?
- Anna:** (overlapping) any museum?
- Moderator:** yes, any museum
- PP:** [unclear because of cross talk]
- Rebecca:** I visited the MUSE [Museum of Science] in Trento and I loved it...it's really cool because it's huge and they also had some interactive games-
- Anna:** (overlapping) exactly, it's much more-
- Sandro:** (overlapping) I went to a museum of roman art in Rome (...) and there were all these sculptures [group laughter]
- Maria:** I liked the one that I saw here in Venice a lot...it was like the house of a count...it was beautiful to see all those clothes, those things hmm...and that's it...and then I also liked the one of natural history in Bologna and it had lots of fossils and skeletons of prehistoric animals
- Moderator:** nice...very nice
- Rebecca:** well, also the one we saw in Vajont [north of Italy] was beautiful-
- PP:** (overlapping) yes very beautiful [unclear because of cross talk]
- Rebecca:** also because we had already studied quite a bit of the Vajont history, and to see it like this with all the models, it was incredible...I also liked the Biennale, which I know it's not a museum, but I enjoyed it-

PP: (overlapping) yes yes

Anna: we also went to the Peggy Guggenheim Collection [modern art museum in Venice] I think-

Sandro: (overlapping) yes, last year

Rebecca: yes, but I only liked the garden [group laughter]...I don't think it was that amazing

PP: hehe yes [nodding]

Sandro: the Doge Palace is also very beautiful

PP: (overlapping) the museums we saw in Milan

Davide in Milan...yes beautiful

Rebecca: like the pinacoteca [the art gallery]...

Sandro: the pinacoteca [the art gallery] of Brera, also the exhibition [unclear because of cross talk and background noises]

Rebecca: I liked the room [unclear] with all the fishes a lot

[02:03-02:59 omitted; students discuss other museums they visited in Milan]

Moderator: and before the visit that we did at the Natural History Museum of Venice, had you ever done something similar?

PP: No no [group laughter]...never in English

Sandro: we did something about minerals but it was something totally-

PP: (overlapping) he explained- [unclear because of cross talk]

Moderator: wait, one at the time

Rebecca: he used slides to explain-

Moderator: but, are you talking about classroom lessons?

PP: yes!

Moderator: no no...I mean outside of school

PP: No no

Moderator: if you had ever used-

Sandro: (overlapping) not English in this way no...

Moderator: English or another language

Davide I went to England when I was in my third year of middle school [13 years old] but I didn't go to museums related to science...

Rebecca: well, we went to France in our third year of middle school but I mean...you speak to your peers in French because they don't know Italian but you don't focus the activity on the language...not like this

Moderator: alright then....and how was the-...I'll give you the sheets [passing the conversation aids sheet around] one each...so, how was taking part in the visit at the Natural History Museum in English? In your opinion, you can choose one of these words- [pointing at question 4]

Rebecca: (overlapping) just one?

Moderator: or more...you can choose more than one if you like...

[04:12-04:53 students read and discuss in pairs before sharing with the entire group]

Moderator: ok, who wants to go first? Which word did you choose? Maybe one each? (...)

Rebecca: I put 'different' and 'stimulating'. Different, because it was something that we had never done before, and stimulating because for example I don't like English because I suck...but you tried anyway to push yourself at speaking in English

Moderator: do you agree? [addressing the others]

PP: yes

Maria: I put 'different' and that's it [group laughter]

Sandro: I put 'fun' because we were all together and we had fun. 'Stimulating' because even if it was in English and there are people that do not like it, it's fun anyway [group laughter]...'useful' because you need it

Moderator: why do you need it?

Sandro: and 'different' because it's a new experience...

Moderator: ok [laughing]...why is it useful? Why do you think that participating in these experiences is useful?

Anna: because especially in this-

Rebecca: (overlapping) moment

Anna: moment...English is something that is required in any job [you apply for]

PP: you need it [English]

Sandro: it's essential [English]

Moderator: do you agree?

PP: yes

Rebecca: Unfortunately [laughing]

Moderator: do you think you will use it [English] in the future?

PP: yes yes...for sure

Anna: I'm going to spend a week in England this summer, so I'll have to speak in English for sure [group laughter]

Moderator: what about you [Anna]? What word did you choose?

Anna: 'Fun' and 'stimulating', and 'different' and also 'easy', because, well, I like English a lot and so I also have good grades and it was easy for me to understand things...also those that I didn't know, I learnt them very quickly, I mean [unclear because of cross talk]

Moderator: so was it easy for you as well? [addressing the others]

Rebecca: NO!

Maria: for me it was

Rebecca: I mean, you have to see...

Giulia: I put 'different' and 'easy'... 'easy' because I like English too and...I don't know (...) it wasn't too difficult anyway...'different' because you need to apply English in a different way, that is, not to learn the rule or be able to ask to find something...I mean something different but-t mmm I don't know maybe it's because of my persona interests but I'd have preferred a guided visit! Because if I have a

worksheet with written things to find and I go and look for them and copy the name mmm (pause) well I'd have preferred a different type of activity that I would have found much more useful-

Rebecca: from my point of view and knowing myself a little bit, if a guide had approached us by just talking at us, first I'm sure I wouldn't have understood anything, second I would have been bored...so the fact that we could interact with each other...maybe it was something more-I mean in comparison with the usual visit to a museum, I mean I liked it-

Moderator: what do you think?

PP: yes

Moderator: What was difficult to do? Was there anything that was difficult in your opinion?

Sandro: maybe to find some of the names

Rebecca: to write down the names in Latin [the scientific names of the specimens]

Sandro: (overlapping) yes to write them down [group laughter]

Rebecca: my group didn't actually right them down [unclear because of cross talk]

Paolo: we were also a bit behind in comparison to the others, so some of the things we didn't-

Moderator: what do you mean? Was it because you had to write the scientific name? or-

Sandro: it was because of the scientific name, because we were trying to write it down and we couldn't...everyone has was faster and was moving on and so we said "alright then, this is not important" and we moved on [group laughter]

Moderator: what was it like to work in groups?

Maria: I was with Arianna and she didn't want to come inside [the room] because she was disgusted by the dead animals...I didn't like them either but I went inside anyway and Alice wasn't with us so...nice [sarcastic] [group laughter]

Rebecca: I was with Fabio and Andre so you can imagine

Sandro: I was with her and Serena and sometimes I lost track of them because Serena wanted to move on and so I was like "where the heck are you going?" [unclear] and I got lost because I was looking for you [group laughter]...I acted a bit stupid-

Rebecca: (overlapping) no, I think that we worked quite well as a group, considering that Andrea was the one that was most at ease with English, I was with Fabio and we supported each other in our ignorance, so I had fun...it was nice

Moderator: what was fun to do? Think about the entire visit...so [consider] also the [second] part that we did in the workshop room

Rebecca: well, also the fact that we could learn about animals that [you didn't know]...for example, I loved the ball with all the organisms, what was it?!

Maria: ah-h you mean the dark one?

Moderator: that with the "prawns"?

Rebecca: Ehh [confirmation] I loved it so so much...just to say [expressing fascination]

PP: yes yes

Sandro: I felt pity for all those dead animals...the thing I liked the most was the room with the african objects, not the one with the animals but with the mummy...

Rebecca: well, I also liked the aquarium because I could something that was alive-

Sandro: yes, that too...

[10:47-10:58 recording interrupted because of loud background noises due to construction work]

Moderator: listen, are there any comments...look at question 6 "which of these statements do you most agree with and why?. I took these statements from the questionnaire that was filled in by all of the students that came to the museums. Read them on your own and then we discuss which one you most agree with and why...

[11:22-12: 44 group work]

Moderator: are you ready?

PP: yes!

Moderator: who wants to go-

Anna: ME!

Moderator: you always want to go first Anna? [group laughter]

Anna: I chose A, B and C... because I imagine it was very nice to experiment with the English language outside of the school context (...) and of course it must have been

more interesting than an hour of explanation-no offence for our teacher and it's a new way to visit the museum but, as Maria said earlier, I'd have preferred to have a guide...[laughing] I'm imagining

Rebecca: I chose A and C, because...I prefer to be taught English this way instead of being taught the rules that I don't understand anyway so it's useless to explain them...it was much more nice this way and I felt like we could try, because we were worked with our peers and even if you said something stupid-

Maria: (overlapping) you turn it into a joke

Rebecca: and 'it was a new way to visit the museum' because if I go to a museum in Venice, I don't think I can do it in English...so it was quite fun, also to have the worksheets, to look for the animals...it made sense

Paolo: I chose B and C because, well 'it's a new way to visit the museum' because usually you have the traditional guided visit, as it was already said, and 'it was more interesting than an hour of explanation at school' for sure [group laughter]-

Rebecca: (overlapping) I don't agree with this one because I'm very interested in some of the topic, I like them so-

Paolo: (overlapping) it depends on the topics...

Sandro: it depends...

Rebecca: yes, that's why I don't totally agree with it because I like some of the [topics we do class]

Paolo: like in maths for example...

PP: yes, obviously [group laughter]

[14:37-15:06 omitted because of remarks not related to the main aim of the focus group]

Moderator: what about you? [addressing Maria and some of the other students]

Maria: I put A and B because in comparison with a classroom lesson, where some students don't always pay that much attention, in the museum [cross talk] we can all interact, in fact I don't think that anyone got bored

Moderator: well, there must have been someone who got bored [group laughter]

Maria: yes, but because you had to write, to do and look for things, at least you were busy...

Rebecca: well done Ilaria, such nice words [sarcastic but in a confirmatory way]

Giulia: I put ‘it’s a new way to visit the museum’ because I had never done it before and it was different, but (...) we had the worksheets which required us to look for certain things, without the opportunity to see the rest of the museum, which I really wanted to see better

Moderator: and did you want to see it through English or on your own?

Giulia: well, also in English

Moderator: also in English but-

[cross talk] some of students seem to disagree but the comments are unclear]

Moderator: [so you’d have preferred] to interact with the guide-

PP: more questions

Moderator: something like “questions and answers” [interaction]?

PP: yes yes!

Moderator: alright then, a bit more interaction?

Giulia: yes yes, but to work this way wasn’t negative at all...the only thing was that you concentrated on a small number of things leaving out others that-

Maria: ...something like a quick visit led by a guide and then an activity at the end...

Rebecca: like we did with the mummy [unclear]

PP: YES-s-s-s!

Moderator: what did you do with the mummy?

Rebecca: first, the guide explained to us [a bit about the mummy] and then she gave us images in which we had to look for [unclear because of cross talk] and then she told us the story and explained (pause) but in the end it depends on the person

[17:04-17:14 omitted because of extraneous remarks to the focus groups]

Moderator: what do you think you learned?

? e-e-e-e-e

[cross talk]

Sandro: new words-

Rebecca: I used to remember those words...but if you ask me now I don't know them [group laughter]

Maria: the names in latin [sarcastic]

PP: NO! [group laughter]

Rebecca: well, but even the fact that you could see...I mean I had never seen a CROCODILE before...so to see it with its real dimensions (...) the leg of the elephant...I mean you know that the elephant is big, but to see that Andrea, who was next to it on his knees, was as big as the leg of the elephant, it's something that you will remember for ever [group laughter]

Sandro: well, you can also find dorf elephants

Giulia: yes, but this is something that I'd rather experiment with animals that are alive [laughing]

Rebecca: well me too, but...

Giulia: I mean it's not like [this experience] was not ok-

Sandro: (overlapping) if you go in front the leg of an elephant "uh ciao" [laughing]
[unclear because of cross talk]

Giulia: otherwise you go to a zoo, but I don't want to

Rebecca: I think that's even worse

Giulia: I'd rather go to Africa and tour around

Rebecca: like a safari

Sandro: a safare with the binoculars (...)

Moderator: and what did you learn about contents and language?

Giulia: hemmm...[we learned] new words, but related to a different field, because the ones we learn in class are different

Rebecca: exactly!

Sandro: yes, usually [we learn words like] “cake”, “salad” [laughing]...[instead at the museum] we learned new things, new words...

Giulia: also, words that are different from the ones that I usually learn through reading the lyrics of metal songs [group laughter]

Moderator: haha metal not even pop [group laughter]

Rebecca: they don't talk about the elephant for sure

Giulia: exactly [laughing]

Moderator: do you think that you memorise better a word if you have the thing it relates to in front of you?

PP: yes

Rebecca: yes, but I think that one outing [is not enough], I mean we should do it more often, because one session can give you something, but it is [limited]

Moderator: do you agree?

PP: si

? two weeks in England

Rebecca: eh eh

PP: eh-h-h-h [group laughter]

Rebecca: I'd need one year [to really make an improvement]

Moderator: who chose “homology-analogy” as the topic for the poster?
[students were given a series of topics to choose from for their final project and only three students in this focus group chose the topic related to the museum visit, homology-analogy]

Moderator: how come some of you chose it and some others didn't?

Maria: I felt inspired by the title [laughing]

Giulia: he [Paolo] was absent and I created the list and that was what was left

Moderator: oh no-o [laughing], so Paolo you were forced to work on [that topic], and you didn't do it out of interest

Paolo: yes, because less people had selected it

Giulia: yeah me too

Anna: I think it was less inspiring

Moderator: and why do you that is?

Giulia: because it consisted of too many questions and it seemed longer than the others so [unclear]

Maria: yeah, there were five or four

Rebecca: well, I chose “Darwin” because I was already familiar with [the topic] and I thought “great, I can play safe”

Sandro: on the contrary, I thought “well, I already know everything about Darwin and I don’t want to study him again” and then I said “who the heck is this “Linneous”?” and I decided to [do a bit of research on] him...and I actually enjoyed it!

Rebecca: honestly, me too

Anna: same for me with “taxonomy”

Giulia: I found the topic of analogous and homologues structures very confusing

Rebecca: [I also liked the idea of designing a poster a lot] because we [rarely] do it

Anna: yes I liked it!

Paolo: rather than a *verifica scritta* [=written test]

Rebecca: rather than an oral or written test in which you memorise the answers to the same questions and then-

Maria: (overlapping) it’s a presentation that you manage yourself

Rebecca: I mean you speak about what you want (...) and then you get evaluated on what you know or don’t know anyway

Anna: exactly...

Moderator: why do you think so few people chose that topic?

? the one we dealt with at the museum?

Moderator: yes, “homology-analogy”

Giulia: I think people got scared about the [number of questions]

Maria: not because of the topic itself...

Paolo: I think it was a bit more complex [than the others]...

Sandro: mmm [yes, I agree]

Rebecca: especially if you have to do it in English...forget about it!

Giulia: (...) you see lots of letters, words that you don't know, you choose the one that looks shorter ...I'd have done it too but that [homology-analogy] was the only one left [group laughter]

Moderator: did you find it difficult in the end?

Paolo and Giulia: NO!

Giulia: ...not so much

Moderator: I realised you did a bit of research at home -

Paolo: (overlapping) yes, on the internet

Moderator: you didn't simply use the [the materials we used in class]

Anna: maybe it was more difficult to deal with “Darwin”, because the topic required a bit more research in comparison to ours

PP: mmm...yes

Moderator: maybe

Rebecca: [unclear] Darwin was more difficult Giulia-

Sandro: (overlapping) Linneous...there was so much information...but I feel like I understood a lot

Moderator: alright then...so you liked the idea of producing a poster?

PP: yes

Rebecca: well, even though I'm not a genius, I personally found the topics very interesting...the fact that you understand how something evolves-I mean I like science a lot in comparison to other subjects

[22:10-22:20 omitted because not related to focus group]

Moderator: do you think there's a difference between studying science at school and at the museum?

Sandro: yes, because, at school, you [study by looking at] a little image, a little drawing on the book and-d-d...it's FLAT...instead at the museum, you're surrounded by a lot of three dimensional things, and you see them for real, so-o-o...it's not like in class

Rebecca: yes, but also, when you're in class, and you get bored, you play with the pen and get much more distracted...you start chit chatting with your classmate and so... instead at the museum (...) you see animals...they also make you a bit sick...so you react differently...he's right when he says that the image is flat, it's a flat sheet-

Sandro: (overlapping) and then sometimes they have [numbers?] and so you think "what kind of animal is this?" and you go and read and think "wow, I didn't know [this species existed]" [group laughter]

Moderator: and what do you think...is there a difference? [addressing the others]

Anna: yes, there's a difference, I don't feel sick about seeing stuff animals...I mean I like [cross talk] I don't focus on the negative side, that they are stuffed [group laughter]

Rebecca: of course, when you see their dimensions...

Maria: it's easier to retain

Rebecca: I mean I'd never touch them-

Sandro: (overlapping) I feel pity for all those animals though-even the monkey...

Rebecca: some [animals] like the tiger...it made you feel a bit anxious, but also because it was so dark

Maria: well, something that kinda gave me the creeps...the space, as she said, was really dark, the gorilla hung on to the wall and the smell of the closed environment and of corpse-

Rebecca: stuffed!!

Maria: no, it was very [disgusted sound][group laughter]

- Anna:** did you see the fishes in the jars? [unclear because of cross talk]
- Sandro:** well, ok that I don't get shocked easily but...to see organs inside [liquids?] has quite an impact on you...the little monkey hang that way, with all those organs [laughing]
- Rebecca:** well, and the tiger that was emptied, this way [miming]...but what really gave me the creeps was the little mummy, that...
- Sandro:** oh no, that one was fascinating because-
- Giulia:** (overlapping) the point is that I'm an animal activist, so I don't approve
- Sandro:** the mummy didn't do anything for me because every culture has its own rituals...it's like they saw one [member of our culture inside a coffin] as [macabre?]...it's not like [it gives me the creep]
- Mediator** well I agree it's macabre in there...[group laughter]
- Mediator** listen, let's look at question 10 that you see there [in the worksheet]...I give you 5 minutes...in pairs (...) think about the positive aspects (...) think about the negative and positive aspects of taking part in an integrated CLIL module...that is both at school and in the museum
- Anna:** so, what we did?!
- Mediator** yes, exactly...the module that we did together, both at school and in the museum...what positive and negative aspects did it have?
- [26:01-30:15 discussion in pairs in preparation to main discussion]
- Mediator** well, discuss it together...I'm not going to participate in the discussion, ok?!...so who wants to start?
- Paolo:** well, [as for the positive aspects] first, it was a different experience, that is it was different from the traditional museum visit and it was also a different way to learn English, so also [different] from the usual lessons at school where there's the teacher that explains the rules...and the oral presentation, as I said before, because it's not the traditional written test, it's different...instead for the-
- Maria:** (overlapping) as for the negative aspects, we put that for someone it could be more difficult [laughing] and the visit to the museum only focused on certain aspects and not on the totality and the whole of the museum
- Moderator:** was this a positive or negative aspect?

Paolo and Maria: negative!

Moderator: negative...and what would you have preferred?

Maria: well, as I said earlier, [I'd have preferred to be able] to see the entire [museum] and to be able to stop and reflect on what interested me the most, instead of focusing on what was written on the worksheet...it would have been more interesting for me

Moderator: so you're focusing on the museum [experience] not the module...

Maria: no, on the museum...

Moderator: alright, good...do you agree? Or did you write something different?

Rebecca: we wrote (...) that this was a real educational life experience because [we did so many] different things [during the module] the poster, which is something [we don't normally do], the museum, which is also something [we don't normally do], etc etc...[we also learned] new words, that maybe, as we said before, cannot be learned in class, we experimented with new experiences, which engaged also those who don't speak in English very often [group laughter]

Anna: [one of the negative aspects was] distraction, because there were some people that did nothing, while someone else was doing all the work...there was also a lot of chatting and through speaking, also in English, you got distracted maybe for a word or something else while the others moved on...and there was also poor collaboration sometimes because in one group you had one person that was a bit better and was given all the work to do while the others did nothing

Moderator: good...

Giulia: we wrote the same thing

Sandro: yeah the same for the positive aspects

Giulia: and we also wrote that, in comparison to last year, the people were much more prepared [group laughter] and also, you put [talking to Sandro]...

Sandro: yeah, I mentioned that there were those who were attentive but also those who kept getting lost and also there was very little collaboration because there were those who were bored and one went on and the other, the poor guy that was getting the work done was left behind [cross talk]

Moderator: but if we decided to go...I mean, let's imagine you had another guide, not me, if we hadn't done anything before and we had gone only to the museum, would it have been better or worse?

PP: worse!!

Rebecca: but because we would have thought of it more as a fun outing, and so...we would have thought "cool, look at what there is" and that's it...if you're interested in the topic, you pay attention, but if you're not really interested, you just start talking with your friend and-

Paolo: and also, we already knew something-

PP: (overlapping) exactly!

Rebecca: we were already prepared

Paolo: it was easier for us to understand during that activity-

Rebecca: (overlapping) in my opinion it was better that we were prepared, because, as with the Vajont experience, for which we had already been prepared, the guide was explaining you were also interested in asking her questions- while if you go there without knowing anything, you don't even make an effort...

Sandro: and also this visit [complements] the other [lessons in class], it's like in the middle...it's like you do something and then together you have the visit and then you continue...

Moderator: so you see a bit of continuity...

PP: yes yes

Moderator: ...that is something integrated

Moderator: and if next year they told you "we'll only do the module without the museum visit?"...would you like it anyway or...?

Paolo: for certain aspects, maybe yes, but-

Rebecca: (overlapping) in my opinion, it would feel incomplete...to go to the museum was the perfect end to an educational experience, which had started [in class] we talked about these things, and then we went to see them and the educational path [the module] is complete

Paolo: exactly...I mean it's nice to see-

Anna: it's nice to do an activity that is different-

Sandro: I mean it also depends, because maybe they tell you "we don't go to the museum", but maybe they bring something [in class]...explanations can also engage you, it doesn't have to be something negative but... the fact that we went to the museum-an experience with the museum... is you go out, see new things [group laughter][unclear because of cross talk]

[end of recording]

TRANSCRIPTION FG5

Date: 18 May 2017

Class: 1st year students

Teacher: Paola T and Stefano AT

Participants: Gemma, Cinzia, Amanda, Rosa, Emanuele, Julie

Duration: 40:28 minutes

Moderator: I don't remember if I told you when you came to the museum [but] the trails at the museum (...), are part of a research project...so I interviewed the teachers and those that work at the museum...and now I'm also doing these group discussions with students so to have your opinion [and to see whether] it works, what should be modified, if you liked it...it will just be a conversation nothing more. I will ask some questions, but when you want to intervene...maybe listen to what the others say and then you can also comment, alright?

?: ok

Moderator: so the first question is actually easy mmm...tell us about a time you went to a museum

?: in that museum?

?: in whatever museum?

Moderator: in whatever museum (...)

Moderator: actually, before doing that, can you tell me your names?

PP: Gemma, Cinzia, Amanda, Rosa, Emanuele, Julie

Moderator: are you the only male this morning, Emanuele?!

Emanuele: yes, I was thinking the exact same thing [group laughter]

Moderator: alright, who would like to go first?

[silence]

Gemma: Amanda will go first

Amanda: I need to think about it

Julie: we went to a museum yesterday

Moderator: where did you go?

Julie: we went to Palazzo Grassi

Moderator: oh-h did you like it?

PP: YES

Moderator: I loved that exhibition

Julie: yeah, it's beautiful

Moderator: did you go to both sites? Or just-

PP: (overlapping) both sites

Moderator: which one did you start with?

Julie: Palazzo Grassi and then we went to-

Moderator: because you know that the exhibition actually starts from Punta della dogana

?: yes

Moderator: because the ship...how do you say that in Italian?...wrecked and then the artworks spread across the two sites...it was very nice...I took part in-

?: there's also Mickey Mouse...and Pippo

Moderator: did you see Mowgli?

PP: yes...beautiful

Moderator: it was huge...not like the demon though...and it's like 16 metres tall...it's the one at Palazzo Grassi

PP: oh yeah...

Julie: the one at the entrance?

Moderator: yes yes...you walk around the museum and you always find it in front of you

Cinzia: yeah, that one is beautiful

Moderator: do you know what it's made of?

Rosa: they told us it's made of resin

Moderator: ok...I actually think it's made of polystyrene

PP: polystyrene??!

Moderator: yes, it's polystyrene which is then coated-

Gemma: but it seems really heavy

Moderator: yeah I know...but if you-when they were assembling it, I collaborate with Palazzo Grassi-when they were assembling it, the work was [miming oscillation]

PP: oh gosh

Rosa: and it looks so heavy

Moderator: yes, it seem really heavy I know...instead the head, the one that you see on the side, is made of bronze

Cinzia: yeah, that you can tell

Gemma: it felt like it was made of bronze...didn't you think it was bronze? [addressing the others]

PP: gosh, yes

Moderator: yeah but I thought the same thing when I went inside "surely it's bronze or some sort of metal" and then you get closer and you see that there are the particles of polystyrene

PP: wow

Moderator: ok, let's talk about the museum visit...had you ever done an experience in English outside of school?

?: yes

Cinzia: outside...never

Rosa: [we did something with school] but outside of the classroom

Moderator: yeah...or also a-alone...

Julie: I didn't do it in English

Moderator: ok, in what language-

Julie: German

Moderator: do you also study German? [addressing all the participants]

Julie: at middle school

Moderator: ok...and did you ever participate in a museum visit through English or in a foreign language?

PP: no

Moderator: so this was the first time-

Cinzia: well (...) when you go abroad you tour the museum with a guide and you speak in English, but in Italy I don't think...

Moderator: you had never done it in Italy [asking for confirmation]

Cinzia: no

Moderator: ok...so here are some sheets that include some questions [handing out the conversation aids sheets]

?: do you have a pen by any chance [asking the Moderator]

Moderator: no, I don't have it but don't worry because you won't need it...unless you want to take some notes

Moderator: so the first question is 'how was participating in a visit at the Natural

History Museum through English'?...there are some adjectives and you can choose one or more and give an example (...)

?: do we write it down or just discuss it?

Moderator: think about it for a minute and then we can discuss it orally

[04:51-05:25 students reflect on question 4 on the conversation aids sheet]

Moderator: alright, who wants to go first?

Gemma: me

Moderator: ok

Gemma: (...) it was 'fun' because I enjoyed when...for example, you gave us the worksheet and we walked-d around the museum to look for the works [specimens] and-d we also got lost...so it was fun but then we made it...then it was 'difficult' but also 'useful because there were certain words that I didn't know, but [it was] useful because...with the glossary we understood the meaning of these words and we learnt them...and also 'engaging' because-e it was in English, and I enjoyed it...I really liked this experience

Moderator: yeah?! What-do you agree with Gemma or did you choose different things? [addressing the others]

Cinzia: I also put 'different' because it was a different experience from the usual that [unclear because of background noises]

Moderator: that you hadn't done before? [asking for confirmation]

Cinzia: yes

Moderator: and did you feel like there was any difference between the museum visits that you usually do and this type of experience?

Cinzia: YES-s-s

PP: yes

Cinzia: it was very original with the worksheets and...answering the questions...it was interesting

Amanda: following the guide that leads you to see all the-it's more bor-I mean

it's also interesting but maybe it's more [boring]

- Rosa:** because she shows you what she wants to explain right?!
- Amanda:** exactly
- Rosa:** so maybe you're interested in something else...but you don't have the opportunity...to see
- Amanda:** instead to be free and then to have a general explanation was nice
- Moderator:** would you have liked it more if, for example, in the first part, instead of being totally alone, you had had some moments in which the guide had given you some explanations or maybe to have more interaction? Or did you like to-
- PP:** no-o-o...it was nice to work alone
- Cinzia:** it was nice to work alone, but it was also right (...) that you came to check how we were doing...
- Julie:** I mean it's not like you were totally absent, you were there
- Cinzia:** exactly
- Amanda:** so if we needed you, we could come and ask you for help, right? [asking for the other participants' confirmation] so it was ok this way
- Moderator:** ok...so there was a structure but you felt free-
- PP:** (overlapping) yes
- Moderator:** to observe what you wanted and concentrate on what you wanted?
- PP:** yes
- Moderator:** anything else? Emanuele, what did you put?
- Emanuele:** 'engaging' and 'different'
- Moderator:** mm why?
- Emanuele:** 'engaging' because it encouraged you to learn new words...read the labels underneath the works...the animals...and 'different' because it wasn't something that you do everyday

Moderator: ok...and the fact that was in English?

Rosa: it was much nicer...I like English, I don't know about you [guys]

Gemma: I like it so I enjoy learning new words...and the museum...well...there was the chance to do it

Moderator: even if they were related to the animals-to science?

PP: yes

Cinzia: actually, it was much more interesting mmmm that [the words] were related to the scientific context

Moderator: rather than being general words? [asking for confirmation]

Cinzia: exactly [laughing]

Moderator: ok... and 'what was difficult to do through English'?

Julie: hem-m I think to understand...do you remember that part of the museum where they have all the insects and the glasses?...well, to understand where you had to put the crosses, because there was-

Cinzia: yes, that was difficult...the table

?: exactly

Cinzia: because maybe you told us the meaning of a word, but, in the meantime, we had forgotten it when doing the following ones...and so then "what does this mean?" [laughing]

Moderator: were they new words or you had already seen them in class?

PP: no no

Moderator: were they new? [asking for confirmation]

Julie: the animals, we knew them...I think almost every one...because you know some of them

PP: yes

Julie: But with some body parts it was more difficult

Gemma: yeah you could guess [the meaning] of some of them

Cinzia: [unclear because of background noises] you guess their meaning...but others mmmm

Moderator: mmm they were new

PP: yes

Moderator: ok, was there anything else that was difficult?

Amanda: (...) [it was] difficult but, at the same time, useful [long pause] but not extremely difficult, I mean-

Moderator: it was doable [laughing]

Amanda: exactly, it was doable [laughing]

Moderator: and what helped you the most? In understanding the contents?

Gemma: the little book where you could find all the words and the images

Cinzia: yes

Moderator: the glossary with the images?

PP: yes

Moderator: alright...these [pointing at the conversation aids sheet], instead, are the comments that I extrapolated from the questionnaires...so maybe you can read them and then decide with which one you agree best and why...you can also choose more than one

?: I didn't understand

Moderator: they are comments and you need to choose which one you agree best and why

?: ah ok

[10:38-11:16 students reflect on question 5 on the conversation aids sheet]

Moderator: ok

Julie: I strongly agree with 'b'...for the fact that, for example...if you go abroad you learn the language much more willingly and much more

easily because you're in contact with the people from that culture... and so I think it was...much more useful...to go to the museum and handle/manage the language yourself instead of just [receiving] explanations at school, that you need but maybe it's more boring than it could be...

Moderator: of course...and is there any difference between what you do at school and what you did at the museum?

PP: yes

Gemma: well, let's say that at school they [teach us?] the meaning and (...) the grammar, but...if you study English at school [it doesn't mean that you learn it]...I mean, outside, to speak with English people, to speak and listen...it's something completely different...it's almost like it's a different language...in the end, it's much more difficult right? So...

Moderator: what do you think it's difficult?

Gemma: it's difficult to listen to someone that speaks that language every day...as I think it's difficult for foreigners to listen to us Italians and understand the meaning

Moderator: of course

Amanda: because they talk fast, like "The flash" [group laughter] I mean if they talked slower it would be easier...but of course they're... super fast...and every once in a while you need to say "*repeat*" [group laughter]

Moderator: do you often speak to foreigners here in Venice?

PP: yes

Rosa: yeah, it happens...with directions

?: yeah

Moderator: with directions...so I guess you're very good with that [group laughter]

Rosa: not me...because I never remember how to say "turn here, there" [laughing]

Moderator: "*turn*"

Rosa: *turn-n-n....turn* and that's it?

Amanda: *turn right*

Moderator: *turn right, turn left*

Gemma: yes, but sometimes they are here and they want you to give them directions to go to *Piazzale Roma* [group laughter]

Moderator: yeah, that's impossible

Gemma: yeah, it's not like I can say *turn, turn, turn*

Moderator: yeah, do you know what I do? I just tell them to go to Campo San Barnaba and tell them that they should ask again...because otherwise they won't get there anyway [laughing]

Moderator: and what about you guys? What did you put? [addressing the others]

Cinzia: I put 'a' and 'b'

Moderator: 'a' and 'b'...why?

Cinzia: because...it's true that 'it's nice to experiment with the language outside of the school context' and also 'in different subjects and in different ways'...I mean during the lesson, you get bored a bit because-

Julie: (overlapping) because you're very focused on the grammar...mainly [focused on the grammar]

Amanda: but for an hour lesson, do you mean a science or English lesson?

Rosa: English

Moderator: well-l-l...think about both...think also about the lessons that you did in class...think about science in English...or in general

Amanda: because...I mean...if it's an hour of English in class, I like it...but if we talk about an hour of science, then I don't like it...and in that case it's much better to go to the museum

Cinzia: but a lesson of science in English at the museum is much better

Julie:s it engages you much more, in my opinion

Moderator: why do you think so?

Julie: because-e-e...it's a different environment from school...and maybe you see it better...and...if you talk about animals, as in this case, you have an exhibition in front of you and it engages you...at least for me it does

Gemma: instead of sitting down for an hour listening to a lesson you walk around the museum...

Moderator: so you liked the fact that there were different activities? And it wasn't always the same...

Gemma: yes (pause) even though I didn't get the reason behind colouring the body parts-the parts of the arm

Moderator: did it feel strange at the beginning?

Julie: it felt very futile...so we didn't-

?: yeah

Gemma: yeah, futile but we weren't really able to do it though [sarcastic]

Cinzia: exactly, it seemed futile because we were doing it the wrong way [group laughter]

Moderator: well, it happened to others as well [laughing]...anything else? What did you put? [addressing Rosa]

Rosa: hem I put 'b' and 'c' because, as the others said, it was much more interesting to walk around the museum than to do a lesson in school... for all the reasons they listed and-d-d...for me it was also a different way to visit a museum because, well, to tour with a guide is not always that engaging...instead to decide yourself [what you want to see and do]

Moderator: of course

Moderator: alright...and what did-do you think you learnt?

Cinzia: well, aside from the vocabulary hem-m-m nothing-

Amanda: (overlapping) nothing [laughing]

Cinzia: that's not true [laughing] I need to think about it, ask the others [group laughter]

Rosa: apart from the words, some animals...animal species...so always things

related to science

Moderator: so, you're thinking about the scientific vocabulary, or...do you mean also other types of words?

Julie: let's say that, initially, I was more anxious...because I knew that the activity was very much based on English, that I had to speak in English and I was very worried about saying the phrase in the correct way...but little by little I relaxed and I didn't have to think about it that much anymore but I went more direct and I said something anyway

Moderator: and why do you think that happened?

Julie: because mmmm I don't think that grammar is sufficient to learn English. For example, it's like for Italian, not everyone speaks it correctly, but they make themselves understood anyway and so...I don't think I'll ever get to the point of speaking English like English people and so I'm ok with just being able to....explain it [group laughter]

Moderator: well, who knows, maybe I'll meet you in four years and you'll be all mother tongues

PP: yeah [sarcastic]

Moderator: well, before I moved to England, I didn't speak it very well...I had a B2 [level] but then I lived there two years and-d I'm not a mother tongue, obviously...but-

Rosa: if I can ask, what secondary school did you go to? [addressing the Moderator:]

Moderator: liceo scientifico

Julie: and [what did you study] at university?

Moderator: I studied humanities for my Bachelor and then I did my Masters in London and then...I did a Masters in foreign languages here at Ca' Foscari and now the PhD...I studied a lot [laughing]

Rosa: because I would like to learn English, but studying at *liceo artistico* I don't know if there will be the same chance for me to learn English as there is for people studying at *liceo scientifico*

Moderator: Look, I didn't have...exceptional teachers [laughing]

Rosa: so do you think there's a chance?

Moderator: of course there is...I also studied on my own a lot...I travelled

Rosa: yeah, but when I speak to myself, because I speak to myself, sometimes I speak to myself in English and I feel like I was making one of those perfect speeches in English, but then I speak to English people outside and I just gesticulate

Moderator: yeah but that is normal, sometimes I miss the words myself...even in Italian...I was with a Brazilian lady the other day and she asked me how to say shortcrust pastry and it took me 5 minutes to think of the exact word in Italian and she said “maybe it’s shortcrust pastry in Italian”...and she’s Brazilian, so I said “yes” [group laughter] so even as mother tongues we don’t always know all the words of the Italian language...sometimes you read something and you might ask yourself “what does this word mean?”...same thing in English

Rosa: yes, but I’m more curious about learning new words in English than in Italian...I don’t like Italian that much

Moderator: the curiosity of a new language

Rosa: but I also like it more in general...Italian is boring

Moderator: it depends [laughing]

Moderator: what do you think guys? Who wants to...add comments on this question?

?: I already said what I think

Moderator: alright, shall we move on then? What did you choose as the topic for your presentation?

Rosa and Gemma: “Carl Linneous”

Moderator: you too Emanuele?

Emanuele: we chose-e-e [unclear]

Moderator: wow...interesting

?: Darwin

Moderator: why do you think almost no one chose “homology-analogy”, which was

the topic of the visit at the museum?

Gemma: because...analogy homology are very difficult words...I mean if you wrote it down in an easier way

Cinzia: what does it mean homology analogy?

Gemma: I don't know

Moderator: it was what we did at the museum...did we go to the workshop room together at the end?

Gemma: no

Moderator: oh really? Did we just do the first part in the museum gallery? Didn't we do the recap together?

Julie: and then we did the other worksheets

Gemma: a-h-h yes yes

Moderator: [the worksheets] with the definitions of homologues and analogous structures

?: a-h-h

Cinzia: those

Moderator: but maybe... it was a bit too difficult?

Gemma: I don't remember because-

Julie: (overlapping) maybe because it was at the end and so-

Moderator: and so we didn't go too much into detail?

Julie: yeah

Moderator: what difference do you think there is...think about the entire module...between doing science in English in the classroom and science in English at the museum...if there is a difference

Gemma: there is a difference

Cinzia: at the museum you feel much more engaged also because if you're talking about a specific animal, we can see it and we can understand

better what you mean...instead...during the lesson you either look at the IWB, or if you don't even have that, you're left with imagining...I mean it's more difficult

Amanda: yeah you just say "what's this stuff" [laughing]

Cinzia: yeah, it's more difficult...I mean if you're talking about a specific animal, we look at it and you describe it to us...I think it's much better this way

Amanda: you memorise things better

Cinzia and Gemma: exactly!

Moderator: you memorise better-r-r...?

Amanda: yes, because you see it and you experience it yourself

Moderator: well, of course...do you think there is a difference between seeing an object [in the textbook] and seeing it at the museum?

PP: yeah-h-h

Amanda: even just for the dimensions...you just realise how it is [in reality]...the dimensions, colours, things that you can't [get] from an image

Moderator: Did it ever happen to you to see an image, imagine it in a certain way and go to the museum and realise that it was completely different?

?: lots of times

Cinzia: but not only at the museum...even on the social network, you see a person from the picture and it's the same thing [group laughter]

Moderator: true...there's a different perception of things right?

Moderator: now, in pairs...think about two or more positive and negative aspects of doing a module partially at the museum and partially at school...ok? What was positive of having both things and what was negative?

Cinzia: do we need to write it here? [pointing at the table on the conversation aids sheet]

Moderator: Yes-I mean, have a conversation in pairs and then we can talk about it all together

Moderator: give some concrete examples

Julie: but what do you mean by module?

Moderator: the 10 hour CLIL science module that you did...that was a bit in the classroom and a bit at the museum...think about what worked well and what didn't

Julie: ah-h-h ok

[24:00-28:00 students discuss question ??? on the conversation aids sheet; part of the recording was omitted because not relevant to the topic under discussion]

Rosa: (...) We thought that at school, a negative aspect (...) was that the teacher assistant talked and talked and he didn't stop much to ask us "did you understand?", "is there anything you need to ask?"...I mean he spoke and we just [thought] "yeah, gosh" [laughing]

Cinzia: yeah and so we missed certain things and so we didn't really have the perfect preparation to come to the museum...but then we caught up thanks to the activities that we did at the museum and afterwards. I mean, he [the teaching assistant] is good, but...too fast.

Moderator: would you have liked a slower pace?

? but it was really positive to have the part in class first and then go to the museum, because he explained to us what the museum activity would be about and he gave us some basis that helped us during the museum activity

Moderator: (...) so you knew what to expect in a way?

PP: yes

Cinzia: yes, but I think I missed a few things because I didn't understand everything and so at the museum I didn't know as much as those who had understood well, but I mean there was a basis anyway so I understood what we were doing

Moderator: so, do you think that the module had an underlying structure? I mean, was it clear that there was a before, a during and an after?

Amanda: yes

Gemma: yes, I think so

Moderator: I mean was it clear that going to the museum was part of the module?

Rosa: well, it was a little bit...we did lesson by lesson so they didn't explain what we would do [afterwards]...I mean he explained what we would do during that lesson and that's it

Moderator: ok

Moderator: and what did you put instead?

Julie: As positive aspects, we put that it was nice to have something in our hands. I mean, if you hadn't given us the worksheets at school and at the museum, it would have been much more difficult to understand and so that was positive. A negative aspect was that, as they said, because it was in English it was already a bit difficult and so the fact he was going so fast it was a bit disorienting [group laughter]

Moderator: do you feel like you needed a bit more explanation and support?

Julie: yes

Rosa: no, he [supported us] with explanations, but the problem was that he was too fast and he didn't stop to ask if we had understood or not because I don't think that everyone understood, because maybe there are those that are a bit [slower]-

Gemma: [unclear because of cross talk]

Rosa: no no no, he's a machine. He starts talking and never stops and we feel lost

Moderator: so [it would have been best to have] activity plus support, activity plus support

Rosa: but he also [supported us] with explanations

[31:44-32:00 omitted because not relevant to the topic under discussion]

Moderator: I'm sorry...what did you say about the positive aspects?

Julie: that we had something in our hands anyway...the worksheets

Moderator: ah ok, and what about you Emanuele? What did you put? [addressing Emanuele and Amanda]

Emanuele: as positive aspects, to learn new and complicated scientific words in English mmm and then Stefani TA [the teaching assistant]...just Stefani TA [group laughter]

Amanda: Stefani TA was the best [laughing]...it was the best part, right Emanuele? [group laughter]

Moderator: and the negative aspects?

Emanuele: some lessons were boring

Moderator: mmm the topic or the way they were delivered?

Emanuele: the way they were delivered

Amanda: It was the topic...let's be serious...right? [addressing Emanuele]

Cinzia: well one of the worksheets they gave us, the one about the scientists, which was very long and complicated

Gemma: a bit too complicated

Rosa: we had to ask for his help with the vocabulary several times because we simply couldn't [understand]

Gemma: I mean, we went from the animals, yellow, blue, orange, to a worksheet all in English on scientists, it was a bit of jump

Moderator: so it was a bit complex

Moderator: if next year they asked you to do another CLIL module in English, science or art, would it be better to do it all at school or would you still want the part at the museum?

PP: also the part at the museum [speaking in chorus] [group laughter]

Cinzia: not because we want to skip school classes but because-

Julie: (overlapping) it's much more useful

Cinzia: it's much more interesting to have-

Gemma: (overlapping) it will be impressed in your memory

Cinzia: exactly

Moderator: alright, think about having someone else as a guide, not me, an x guide-

Cinzia: yeah, but I'm talking in general

Gemma: no no in general

Amanda: no, of course

Cinzia: because if we will do an art module, for example, he or she [the guide] can explain us the painting and then we go and see it and we can remember it better and we can recall the explanation as well

Rosa: yeah...it would be so much better to do it in art

Moderator: would it better if [the module] was in art?

Julie: maybe it would engage us more

Gemma: yes, maybe we would see things that we have studied...I don't know

Cinzia: but even doing a science module was nice

Gemma: yes yes yes

Moderator: do you think it would be more useful to study art in English?

Rosa: I think so-

Amanda: art is our passion, if we're here...and [to do it] in English nowadays-

Rosa: (overlapping) it's important

Amanda: it's very important

Cinzia: I mean also for a job in the future

Rosa: exactly

Gemma: exactly, if we become museum guides [unclear because of cross talk]

Cinzia: if you decide to become a tourist guide you need to know about art but you also need to know English

Amanda: and you need to know how to talk about the art [concepts] in English

- Gemma:** minimum in English exactly...so I can't hide that I would like to do something like this in Art
- Moderator:** something like this in art [seeking confirmation]
- Gemma:** yes
- Moderator:** ok, let's maybe talk about the last question 'how did you feel during the museum visit?' and why? [referring to question 11 on the conversation aids sheet]
- [35:08-36:28 omitted because students are discussing the question in pairs]
- Moderator:** Emanuele, would you like to go first?
- Emanuele:** I wrote 'hooked'...
- Moderator:** why?
- Emanuele:** because we did activities and not only explanations, but we had also to work together [in groups]
- Moderator:** mm mm ok...anyone else?
- Cinzia:** I wrote 'surprised' because I was very surprised of how I was able to make myself understood, pulling out [a knowledge of] English that I didn't have... 'hooked' and 'attentive' because it wasn't boring for me, so I was willingly attentive and hooked
- Gemma:** I also put 'proud' because other than the things they already mentioned and that I wrote as well, it was like we were able to pull out the English that-
- Cinzia:** (overlapping) that was inside us...and then it's like you say "Gosh, I can't believe I'm this good" [group laughter]
- Gemma:** and this makes you a little proud...you tell yourself "I'll learn English this way"
- Moderator:** were you scared before the module?
- Julie:** I was! In fact, I put 'anxious' at the beginning
- Rosa:** yeah, I thought the visit at the museum was like a guide talking in English and explaining but then when you gave us the map and all the

other things...

Gemma: and it was very professional with the folder that kept all the worksheets together and I felt very-y...it was something very professional [laughing]

Moderator: like a scientist

Gemma: yes, exactly [laughing]

Moderator: and now if they told you “let’s do another module next year but longer”? (...) would you be worried? Or would you think “we can do it”?

PP: no, we can do it

Cinzia: also because it went by so quickly

Gemma: yeah, exactly the lessons went by so quickly...Stefano TA had to come for other two lessons because we hadn’t finished the oral presentations

Moderator: do you mean to finish the [oral presentations] of the poster?

PP: yes

Gemma: yes, but I would like to do a longer [module] in another subject...without complaining about science but...

Cinzia: we just did it [in science] so we need to change

Gemma: exactly

Cinzia: for example history of art would be-

Amanda: amazing

Rosa: but also geography, for example

Cinzia: yes yes

[38:47-39:04 omitted because not relevant to the topic under discussion]

Moderator: and what did you put?

Amanda: I put ‘amused’, because I had fun [laughing], ‘hooked’ and ‘engaged’, because we all felt engaged...it felt a bit like a treasure hunt [laughing]

- Moderator:** it was a bit like a [treasure hunt]...anyone else? (...)
- Moderator:** is there anything else you would like to add? Something that maybe I didn't ask you?
- Gemma:** it was a useful experience in general and [it was] fun...not too difficult but interesting
- Moderator:** so for example some students told me that it would have been better to have the lessons more close together, instead of having all that time between a lesson and the other
- Cinzia:** I mean that's really the timetable's fault so...
- Rosa:** I don't think we can ask for anything better
- Cinzia:** because we have science on Thursday and Friday so after Friday we go directly to the following week
- (...)
- Moderator:** alright guys, thank you so much
- PP:** thank you

[end of recording]

TRANSCRIPTION FG6

Date: 21 Apr 2017

Class: 2ns year students

Teacher: Paola T and Stefano TA

Participants: Samuel, Carlo, Sara1, Sara2, Valentina, Laura, Roberto

Duration: 41:36 minutes

[00:00-00:21 omitted because not related to the main focus of focus group]

- Moderator:** alright, so you met me at the museum, but I don't only work as a guide...I'm also a researcher, so the trail that we did at the museum is actually part of a PhD research that I'm conducting together with my colleagues...so we want to understand how the visit went, what you think about it, and how it can be modified...it's a conversation, not an exam ok?! So, I will ask you some questions and we can discuss them together

[00:57-01:29 omitted; the Moderator: asks participants their names and make sure they are sitting comfortably]

Moderator: So, the first question...can you tell us about one time you went to a museum?... Whatever museum...a time you remember well

Carlo: during the Christmas holidays I went to Turin to the Egyptian Museum, and I saw lots of things

Sara1: "I saw a lot of things" [mocking]

Carlo: and I drew a sphynx...for an exam...and it wasn't complex, [because] it didn't have a nose [group laughter]

Moderator: what about you? [addressing the other participants]

Valentina: are exhibitions relevant?

Moderator: yes-s

Valentina: ah-h then I've seen lots of exhibitions...during the holidays-

Sara1: (overlapping) the Impressionists' one in Treviso [was] very beautiful

Moderator: oh yeah?! Is still on?

Sara1: no, they just took it down

Valentina: but it changes every time- [unclear because of background noises]

Samuel: [is it ok if I mention] a museum that I saw a few years ago?

Moderator: yes absolutely

Samuel: then I saw a museum in *Bogotá* in *Colombia* (...) there was a meteorite...[group laughter]

Moderator: ah wow...but a piece of meteorite?

Sara1: *wonderful!*

Samuel: yeah, a piece of meteorite...

Moderator: how beautiful! [group laughter]

Laura: always during the Christmas holidays, I went for the third time to *London...*

Moderator: nice! Where did you go?

Laura: to the *British [museum]*

Moderator: that museum is beautiful...it's huge though

Laura: yeah...we saw just a few parts

Moderator: did you go alone or with someone?

Laura: eh-h with my family

Moderator: nice!...the last time I went it was really crowded and I only saw one room, the African one, and that was it, but I remember it very well...it was beautiful

Moderator: what about you Roberto?

Roberto: I-i-i...I remember...well, the Louvre is too mundane so the [museum on] Impressionism...that is, like, inside a station...I can't remember the name...

Moderator: *Musée d'Orsay?* [group laughter]

Roberto: yeah, exactly...that one was nice...not very beautiful but nice

Moderator: ok...listen, before the visit at the Natural History Museum, had you ever used English outside of school?

PP yeah

Carlo: with tourists! [group laughter]

Moderator: with tourists? [laughing]

Sara1: yeah, me too

Valentina: I have a Norwegian friend, so we only speak in English...

Laura: my best friend is English

Samuel: does giving directions to tourists count?

Moderator: yeah

Samuel: well I give directions...well with a few words I give directions to tourists so that they get lost...

Moderator: that's quite bad [laughing]

Samuel: the best thing to do in Venice is getting lost

Moderator: so he helps them [to do that] [group laughter]

(...)

Moderator: did you ever take part in a museum visit through a foreign language?

PP: no

Samuel: the theatre in English

Laura: there was one time when they had run out of audioguides [in Italian], so I partially listened in English...then, luckily they gave me one in Italian [group laughter]

Carlo: they sent us to an exhibition...no, a theatre [performance] in English

Moderator: and that was the only thing? You had never done something like this before?

PP: mmmm...no

Samuel: maybe in the third year of middle school...maybe, but I'm not sure...it was a nightmare [=meaning 'middle school'] [group laughter]

Moderator: alright...I'm going to give you these [distributing the conversation aids sheets]...one each (...)

Moderator: so the first question 'How was taking part in a museum visit through English?', you can choose one or more words (...) Think about why you chose those words...

[05:47-06:18 students are thinking about the answer to the first question]

Samuel: what do you mean by 'different'?

Laura: something that you don't normally do

Samuel: ah ok...

Moderator: what did you choose?

Sara1: 'useful' and 'different'

Samuel: I chose 'fun', 'useful', 'different' and 'engaging' because there was also an element of competition, of arriving first

Laura: me too, but I also chose 'easy' because I think it should be more difficult...like, some questions

Roberto: I actually chose 'difficult' [group laughter] because to do science, especially in English, with all those strange names it made me quite nervous but, anyway-

Laura: (overlapping) yeah, but in the end, all you had to do was observing

Roberto: it was very 'fun' and 'engaging', 'useful' because now I also know some names in English...so, nice

Moderator: what about you guys?

Sara2: I put 'fun', 'engaging', 'useful' and 'different'

Moderator: alright, any examples?

Sara2: well 'fun' yes because...I mean...we had fun, 'engaging' because it encouraged us to speak in English...'useful', to learn other things and 'different' because we never did an experience like this one

Moderator: and why do you say that it's 'fun'...I mean what is 'fun' about the trail? [probing the group to expand on their answers]

Carlo: to explore it

Moderator: to explore the museum?

Laura: well, the fact that we were alone and we had to speak in English

Sara1: exactly...

Valentina: to find a way to say things [group laughter]

Sara2: making up non existing words [group laughter]

Sara1: exactly [laughing]

Samuel: yeah, that was fun because...I mean, you were in groups, with your friends-with your colleagues...and you could walk around the way you wanted, managing the time and things...mah, ok I'm gonna shut up now [showing embarrassment]

[group laughter]

Moderator: was there anything difficult [to do]? Think about the entire visit, including the second part that we did in the workshop room

? no

Carlo: I'm good in English [group laughter]

? we're so modest [laughing]

Laura: no, it was easy

Moderator: Was it easy? [asking for confirmation to the other participants]

Samuel: the words for me were a bit difficult...

Moderator: do you mean the scientific words?

Samuel: yes, the scientific words

Laura: but they're difficult because they're in Latin...I mean the ones in Latin were difficult [laughing]

Sara1: it was difficult to search the-

Laura: and Sara2: (overlapping) yeah, that was a little bit...

Moderator: the scientific name?

Laura: and Sara2: yeah...

Sara1: two hours in the room to find...[group laughter]

Moderator: ok, what about question 6 'which of the following comments do you

agree the most with and why?' ...these are comments that I extracted from your questionnaires

[09:24-10:10 omitted]

Sara1: what do you mean by 'an hour of lesson at school?' (...)

Moderator: mmm...I'm not sure...how do you interpret it?

Sara1: when I hear English I think about [name of the English teacher], I don't know about you [addressing Laura]

Laura: yeah, I just wanna cry

Sara1: yeah, you feel sad [when you think about her]

Sara2: at the beginning she wasn't that bad, but-

Valentina: now, she's just gone crazy

Sara1: and it's not nice

Roberto: I don't want to be mean [group laughter]

(...)

Moderator: so maybe it depends on who you have lesson with at school

Sara1: yes, for example, in science, the explanation is nice with [name of the science teacher]

Moderator: yeah, she's great...quite a character [group laughter]

(...)

Moderator: tell me when you're ready guys...ready? Ok, Roberto, do you want to go first?

Roberto: B and C, because 'it was more interesting than an hour of explanation at school'-

Moderator: mm...why?

Roberto: [unclear because of background noises] it's also nice the way we visited the museum

Moderator: what about you guys?

Sara1: I put 'C' and I didn't put 'A' because...even though it was beautiful and engaging (...) but if I had gone to France to see a museum I would have not liked to complete the worksheets...I would have preferred to just listen

Moderator: do you mean to listen in a more frontal way?

Sara1: yes, exactly...but it was interesting from an educational point of view...I really enjoyed it

Laura: I put 'A' and 'C' because...well, 'a new way to visit a museum', because otherwise I would have probably gotten bored, while in this way...it was nicer, more engaging and-d...'to experiment the English language outside of the school context' because...I mean, it's something that you need

Moderator: is it something that you do? Speaking English outside of school?...apart from you, because you have an English friend

?: [I think we should do it more often?] [unclear because of cross talk]

Laura: Yes, I agree...like, now for example we need to do another experience of speaking in English of...the trails of Venice-

Valentina: (overlapping) I realised, with this friend of mine, that the first week...you're like-you can't even say *the pen is on the table* [group laughter] and the following week you can speak a bit better, so if we do more [out-of-school language experiences] I think...you avoid a bit that period of *the pen is on the table* [group laughter]

Moderator: something else?

PP: mmm...no

Moderator: did you put the same things? (...) What do you think you learnt during the visit at the museum?

?: We already knew everything [sarcastic]

Moderator: you already knew everything [laughing]

Valentina: you're not helpful [addressing another student]

Sara1: [I learnt] to explain a topic in English

Sara2: yeah, to be able to explain a topic in English, and we learnt words like the crab's claws, things like that

Valentina: or maybe to understand some things more-

Sara1 and Sara2: (overlapping) yeah, exactly

Valentina: because when you hear them in Italian-

Sara1: (overlapping) maybe you miss them, while if you read them and think about what was written you could memorise them better

Sara2: and we also understood something in Italian...I mean something like...that the horse has hoofs...these sorts of things [group laughter]

Laura: yes, we were ignorant before

Moderator: so also science contents?

PP yeah, exactly!

Moderator: and new words...scientific, do you-

PP yeah

Moderator: do you think it's enough to do it just one time? At the museum, to remember all those words?

PP no

Samuel: no, it needs to be more in-depth...three lessons (...)

Sara1: yeah, I agree

Samuel: because otherwise...I mean it's always nice, because I'd already been to the museum 7 or 8 times [both] with the school and my parents...and the other times I got bored...this time it was more enjoyable [group laughter]

Moderator: what did you choose as the topic of your poster?

Sara1, Sara2 and Laura: "Charles Darwin"

Valentina: *Ichthyosaur!* The difference between analogous and homologous (...)

Moderator: so you chose the topic after the visit?

Valentina: exactly, we chose [analogous-homologues] and then we gave an example...the ichthyosaur

Moderator: [the reason I'm asking is that] not many people chose the topic we explored at the museum...why do you think that is?

Samuel: I don't think we had it [as one of the options]

PP: mmm no

Sara1: yeah, I don't think so

(...)

Roberto: we had "Charles Darwin"

PP: Linnaeus

Moderator: so you had a list with different topics-

?: (overlapping) yes, but the one [related to the museum visit] wasn't included

Moderator: ok, so that wasn't included

Samuel: no, I don't remember it

Moderator: so you chose it by yourself? How come?

Sara1: because we got really obsessed with the Ichthyosaur [group laughter] and we looked for the right connection and then...

Moderator: how did you connect it?

Valentina: with analogy and homology...we made a tuna can and we put the Ichthyosaur...

Moderator: that came out?

Valentina: yes, exactly

Moderator: and the general topic of the poster?

Sara1: analogy and homology

Moderator: oh alright...wonderful!

Moderator: Do you think there is a difference between doing a science lesson in English at school...so for example with [names of the science teacher and of the science teacher assistant] and at the museum?

Sara1: heck yes!

Carlo: of course!

PP yes! [group laughter]

Sara2: completely different [laughing]....for real- I mean...we got lost with our teacher and teacher assistant...because we ended up making funny comments and talking in Italian...or even worse in dialect

Samuel: I mean we're very noisy as a group

Sara2: we can't stay quiet when we're in class...we need to go out and do things that engage us a bit more

Sara1: I mean maybe in the experience at the museum we were more engaged-

Sara exactly...we worked more in group

Samuel: yes, also because all our teachers say that they never take us on a trip, while outside [of school] we are much more...

Sara1: well behaved!

Samuel: yeah...

Roberto: decent

Moderator: Roberto says "decent" [laughing]

Sara2: no we're good!

Sara1: the problem is [when we are] in the classroom

Carlo: it's different anyway, because to go and see for real instead that on

the internet it's nicer

Moderator: yes...why so?

Carlo: it's nicer, that's it...I don't know how to speak [express myself]

Sara1: I mean...for example with the lessons we did with the teaching assistant at school-

Valentina: (overlapping) I don't remember anything

Sara1: yeah, nothing, zero!...maybe some words out of memory

Valentina: yeah-h-h

Sara1: but nothing, really...also because the teaching assistant was a bit disorganized

?: yeah, a lot [group laughter]

Moderator: do you remember it better when you see it in reality?

Sara1: yes, much better

PP: yes!

?: of course!

Laura: also because you had to act...while there [at school] it was more about speaking and copying from your partner

Sara1: yes, I see a word in English and I think about...what I had seen there-e...at the museum-

Sara2: (overlapping) in reality

Sara1: in reality, what I did, the activity, instead of...reading in the classroom and saying "eh, did you understand" [sarcastic] [group laughter]

Valentina: anyway, the lessons we did this year were SO-o different from the ones we did last year

Sara2: yeah-h-h

Moderator: you're in the second year right?

Valentina: yes, last year he [the teacher assistant] only explained and we took notes...and maybe it was easier to remember

Sara1: yeah, it was more comfortable

Valentina: while [this year] he gave us the worksheets and told us “work on them“

[18:37-19:23 Samuel asks the Moderator to clarify what CLIL means]

Sara1: they told us we will maybe do art in English next year

Moderator: oh-h would you like that?

Valentina: ah-h-h how disgusting, how disgusting [cross talk]

Samuel: it’s already difficult...

Sara2: it’s a scary thought for me

Laura: in art history you need to learn how to explain things in a well formed manner, using difficult words that don’t even have sense in Italian...so, to try and do that in English is absolutely impossible

Sara1: yeah, we would need a different teacher...that is also [fundamental]

Laura: yeah but I mean, art history

Sara1: I mean it’s a beautiful subject but...

Laura: I would do something like geography

Sara2: yes but until they give us a limited number of lines and...if you write more you get a lower mark [group laughter]

Sara1: basically, she gives a question and we need to write a text of maximum 10 lines...if you write more, you get less points

(...)

Moderator: Laura, why were you saying earlier that last year it was easier?

Laura: it was easier because it was easier to remember

Sara1: I think it was more engaging last year

Samuel: but what...last year?

Sara1: when we did the minerals

Laura: he talked about the minerals...he had the power point and we took notes

Samuel: oh yeah

Laura: and they uploaded the power point onto the website and we could...

Sara1: yeah, exactly

Moderator: ...you could look at it again later?

Sara1: and then we did the test...we also went to the laboratory to see the minerals

Samuel: but this year, I didn't really like it with the poster-r

Sara1: well, I didn't mind the poster part

Sara2: the poster was nice

Laura: the problem was the explanations with the worksheets..."complete the worksheet"

Sara1: I mean yeah, to keep all the worksheets [in order]...and we lost most of them, and then our teacher even asked for them [laughing]..and we only brought half of them

Roberto: there were twenty worksheets and I was missing two of them and I got 6/10 [In the Italian system the highest mark is 10 and the lowest is 1; students pass with 6/10]

Sara1: I was missing three and I got 9+/10

Samuel: yeah, I was missing 2 worksheets as well and she gave me 6/10 and in the oral presentation in English, and I'm very bad at English, she gave me 4/10 [fail]

Moderator: so [you wanted] a bit more time for explanation, even in the classroom, I mean...

Sara1: well, [an interactive explanation]

Sara2: yeah...

Moderator: interactive, like questions and answers, without always working in groups?

?: yes

Laura: yeah, because the tendency was to leave those who were making noise to make noise...I mean it's not like they [tried to quiet them down]

Roberto: yeah, I'm not the quiet type

Laura: I mean...maybe...it was also the topic that was more interesting last year-

Sara1: (overlapping) yeah

Laura: I mean I liked it

Samuel: yeah, I liked it too

Laura: all the diamonds...[it was] beautiful

Sara1: yeah, he explained to us [unclear because of cross talk]

Moderator: (...) ok, now...[question number] 10, 'think about two positive and negative aspects of doing a CLIL module partially at school and partially at the museum'...so what was nice about having both the part at the museum and at school and what wasn't-t-t positive?

[22:28-25:00 students are thinking about question n. 10 of the conversation aids sheet and how to answer it]

Moderator: so, who wants to go first?

Roberto: well, one of the positive aspects was that it was a different experience...different from the lessons we usually do at school, so this was a good thing...then the negative aspect, I wouldn't know what to say...it's always difficult to [talk about] the negative aspects

Sara1: actually, usually it's easier [to describe] the negative aspects...the positive ones you always say the same stuff

Roberto: alright, so how many positive aspects did you list? [addressing

Sara1]

Sara1: two

Roberto: and the negative [aspects]?

Sara1: one...but it's long [laughing and the others join in]

Moderator: shall we start with the negative one then?

Sara1: alright...for example, for me that I'm good at science, I have good grades...I had to...let's say...lower my grade because I don't know English and, especially, I don't know the pronunciation...and so...I think this is a bit sad that you get a lower grade in a subject because of another that has nothing to do with it...but it's also nice that you learn more words-s, studying is more fun and, above all, it's nicer to go to museums if...you also take part in an interactive visit...

Moderator: what did you put? [addressing the others]

Laura: I put that it was nice that everyone participated during the museum experience, because...anyway...there was no one-e-e that said "I don't give a damn about doing this" [laughing] and then a negative [aspect] was that I didn't feel like the two experiences were very connected...

Moderator: what do you mean?

Laura: because...I don't know...I see them as two separate things-

Sara2: (overlapping) mmm yeah me too

Laura: mmmm I didn't see...I don't know...let's study in class and [then go to the museum and see what we studied]...mmm I don't know

Valentina: yes, we could understand that better when we studied the minerals...because there you studied the minerals and then you saw the mineral..

Laura: while, here it was much more disorganised-

Sara2: the worksheets with the exercis

Laura: worksheets, exercises that we didn't understand and in the end we completed them, through copying and-d-d...nothing

Moderator: so you agree that there wasn't a link between-

PP: (overlapping) yes

Moderator: what you did in class and what you did at the museum, like they were two separate things?

PP: yeah

Samuel: yes

Moderator: anything else?...what did you...?

PP: mmmm

Valentina: [the positive aspect is that] you have a different way to discover the topic...when you go to the museum you see it...mmmm...from a different perspective

Moderator: nice...very nice...do you agree with Valentina?

Carlo: I didn't understand

?: mmm I didn't understand

Valentina: when you go to the museum you see it [the topic] in a different way

Samuel: yes yes

Sara1: yeah, that's true...you think about it more, you reason

Samuel: [cross talk] it's true because, as someone said...to see things digitally and to see them for real has a totally different...impact...I don't know who said it [group laughter]

Sara1: almost every one

Moderator: and if next year-because next year you'll probably have another CLIL module, I don't know if science or art history...if they gave the option, would you rather have both the school and the museum part, or would you prefer to do it only at school?...what would you choose?

Sara2 and Valentina: a part at school and a part at the museum

Moderator: yeah?!

Laura: yeah, absolutely

Roberto: for sure

Valentina: so if I don't understand at school, I understand at the museum, which is quite possible [group laughter]

Samuel: I just wanted to ask...can't we do [the entire module] at the museum?

Moderator: you would like to have the [entire module] at the museum?

Samuel: yes, because...

Sara1: yes, but you would have to go to the museum two or three times

Samuel: but also if you put two lessons at school and three at the museum-

Roberto: (overlapping) yes the majority at school-I mean at the museum...and a little bit at school

Samuel: this way it could be a bit more...interactive

Sara1: or maybe to go more slowly at the museum...divide it

Valentina: maybe one time at the museum, then back in the classroom, so that you study what you did at the museum and then...

Sara1: exactly...speak about [what you did at the museum]

Moderator: so [what you're suggesting] is a moment, when you come back to school, and recap what you did at the museum-

Sara1: (overlapping) and we talk about it

Moderator: without leaving it...like this

Samuel: yes, because now we did the lessons...then the last lesson was at the museum...and then in the others we did the group presentations...and that was it, the end

Moderator: it's short...ten hours are not enough...actually you did eight hours...eight in total

Laura: no, in the end we did ten, because we added some...casually...because people didn't bring the poster [group laughter]

Sara1: or they didn't show up for the oral presentation...things like that

Moderator: they didn't show up?...that happened in our classes as well (...)
[29:59-30:35 omitted because not related to the overall discussion]

Moderator: was it difficult for you to work in group?...on the poster?

PP: no

Sara1: we're a good group so...

Sara2: I mean we assigned roles to everyone in our group...for example, I did all the drawings and graphics and they wrote everything in English

Roberto: we didn't have much time-

Samuel: (overlapping) just two lessons

Roberto: not even two

Sara1: yes, but because you had to meet up at home [after school]

Roberto: eh?!

Sara2: we stayed at school after class, also...

Samuel: yes, but you can

Roberto: [unclear because of cross talk] he didn't bring the poster because he had forgotten it at school [group laughter] we had to do everything in thirty minutes in the hour before the oral presentation

Laura: there was little time to do it

Carlo: I work better alone

Moderator: you work better alone? Ok (...)

Sara1: [name of the student] didn't show up...[name of another student] let's not even talk about him...(..)

Samuel: well, she did her presentation

Sara1: she didn't show up two or three times...

Sara2: and she had to do it alone

Sara1: exactly (...)

Moderator: listen...the last question [11]...'How did you feel during the museum visit'-

PP 'FRUSTRATED'

Roberto: I knew everything

Carlo: 'PROUD'

[Group
laughter]

Moderator: [you can choose] more than one if you like

[32:03-32:34 students are thinking about the answer to question n. 11 in the conversation aids sheet]

Moderator: do you want to go first Roberto?

Roberto: 'proud'

Moderator: why?

Roberto: it's difficult to explain [group laughter]

Carlo: I put 'proud' too, because I knew everything and I could explain to my partners

Roberto: no, because I was happy that our teacher had accepted this thing [experience] and I was proud of this...I don't know [group laughter]

Sara1: I think that our teacher saw that we were participating and usually she always compares us with students in YEAR 1...saying that students YEAR 1 are so much better than us...that we are the worse class-

Sara2: (overlapping) the worse class...always

Sara1: “I’ll never take you on a trip, never on a trip” but when she takes us on a trip we collaborate, we all work...in her face [group laughter]

Carlo: I’m very proud of this thing

Sara1: you see [laughing]

Roberto: then, ‘surprised’ because I thought it wouldn’t be anything special, and instead...it was something [well organised?][group laughter]...so it was nice...the walking around part was nice...then it was fun because I had fun with my group...and also comparing [what you were doing] with the others, trying to find the others, asking them where to find...these animals...and then ‘attentive’ because you had to pay attention...and ‘engaged’ and ‘active’, which I think don’t need any explanation [group laughter]

Moderator: (...) and what did you put? Do you agree with him? [addressing the others]

PP: yes yes

Samuel: same

Laura: I also put ‘anxious’, because you had to...participate and so you went faster than the others

Moderator: was it a bit like a race?

Sara1: yes a little bit

Roberto: I knew I would win [group laughter]

Moderator: what else did you put?

Sara1: ‘active’

Valentina: I had fun

Sara2: ‘engaged’ and ‘active’

Moderator: ‘engaged’ and ‘active’...why ‘active’?

Sara2: because it naturally encouraged you to collaborate with the others...it was nice...I didn’t really expect that our group would act this way...talking, reasoning about what we had to do

Sara1: thank you [sarcastic]

Sara2: I'M SERIOUS [group laughter] it was surprising...and I know you agree with me as well [addressing Sara1]

Moderator: and if it had been in Italian, but with the same methodology, would you have liked it anyway?

Sara2: maybe less

Sara1: yes less

PP less

Valentina: because we would have done it faster...

Roberto: in English it's something different...and everything that is different from mundane life is more engaging

Laura: it's too normal

Sara2: yes, it would have been the traditional museum experience in Italian-

Sara1: plus a test

Laura: plus an exercise at home

Valentina: yeah exactly

Sara2: and also the audios...I listened to them a lot of times because they are below my favourite song and every time they go on...*Ichthyosaur* [group laughter]...so for example if you listened to them in Italian, then you had to write down, it would have been pretty useless

Sara1: yeah true...no it was nice

Moderator: alright then...is there anything else you would like to add?

[35:47-39:35 omitted because not relevant to the topic under discussion]

Moderator: what did you want to add?

Laura: to do the activities...you had to focus for a very short time on everything and I would have stayed...

Sara1 and Valentina: yes, exactly

Sara1: that's why I said to divide [the museum experience] in more than one session

Sara1: and also...as you were anxious to win...you went even faster, so we did some things-

Valentina: (overlapping) "come on, where is...?"... "where is it?"

Moderator: a bit too fast?

Sara1: yes, exactly

Moderator: so, for example I had a group from another school and what they did was...they visited the museum alone for twenty minutes and then they started the activity...would it been better this way?

Sara1: YES

Samuel: YES

PP: no no

Sara1: I think you don't even look at it in a good way, if you do it before...I would have simply divided it in more than one session...you decide on a number of rooms and do it with no rush...maybe even extending the activity a little

Carlo: I even saw new things and it was like...the third time [I went there]

Sara2: well I hadn't seen the butterfly with the feathers the other times I went to the museum

Samuel: the butterfly with the feathers?

Moderator: did I show it to you?

(...)

Moderator: there is a very small butterfly that instead of-which wings have the same structure of that of bird feathers

Samuel: oh yes, alright

Carlo: the small one right?

Moderator: yes, the small and white one

Carlo: is the same for moths right?

Samuel: yes, well I've seen almost everything, because my dad is a bio-bio-

Moderator: biologist?

Samuel: yes, biologist...so he explained to me everything everytime

Moderator: how nice

Samuel: yes, nice but...sometimes it was boring [group laughter] it wasn't like being with a friend who you could talk with sometimes...you were [controlled?]

Sara1: a bit like being a biologist [group laughter]

Moderator: Alright guys (...)

[end of recording]

TRANSCRIPTION FG7

Date: 21 April 2017

Class: 1st year students

Teacher: Paola T and Stefano AT

Participants: Tommaso, Giuseppe, Sofia, Serena, Alessandro, Valentina, and Rosa

Duration: 45:06 minutes

Moderator: ok, let's start with something easy. Can you tell us about a time you went to a museum? A visit you remember...

PP: (pause)

?: this one or...

Moderator: in general

Tommaso: I don't understand

Moderator: [tell us about] one time that you went to a museum...what happened? What did you see? Where were you?

Tommaso: I was in *Chioggia*

Moderator: You were...?

Tommaso: in *Chioggia* there's a museum

Moderator: oh yeah?! Of what?

Tommaso: It's the [museum] of flora...yes of marine environment

Moderator: alright, did you see the same one? [addressing the others]

PP: no no

Moderator: did you go by yourself? [addressing Tommaso]

Tommaso: no, but do you mean with school?

Moderator: no no in general? Did you go on your own then?

Tommaso: yes

Moderator: ok...nice, I've never been to *Chioggia*...I studied in *Florence* for three years

Giuseppe: [unclear]

Moderator: it's really nice there. I was there for three years, then I spent a year in *Pavia*, two years in *London*

Giuseppe: yes I went to *Pienza* and there are some villages close by...my cousin lives in *Pienza* [unclear]

Moderator: so you go often!

Giuseppe: usually during the summer...last year I went for a week. It was very beautiful. I went to *Florence*, to *Pienza*, [to visit] my cousin who has a very big house [whispering] [laughing]

Moderator: and what about you guys, have you ever been to *Tuscany*?

Tommaso: I went to *Florence*

Moderator: you too went to *Florence*

Sofia: I went to *Florence* too

Giuseppe: *Florence* is full of [tourists?]

[group laughter]

Moderator: it's not like there aren't any in Venice...there are so many [group laughter]

Tommaso: yes, but not like in Florence...I even got lost one time...because there were so many people that I got lost

Moderator: what about you guys? Did you go to other places?

Serena: yes, when I was in primary school, I went to the *Museum of Otzi* in *Bozen*...

Moderator: *Bozen* is very beautiful too...there's nothing though [group laughter]

Giuseppe: I went to the *Muse* in *Trento*...

Moderator: yes, I like that one too

Giuseppe: it's got five floors...it's huge

Moderator: yeah I know, they are very beautiful museums

Tommaso: I went to the *British museum*

Moderator: you went to *London*?!

Serena: yes, last summer...I visited the *Vatican museums*

Moderator: yeah those are really big and you can't find a chair even if you wanted to pay for it

Tommaso: I visited them too

Giuseppe: it's really big and large

Sofia: it's really big and full of gardens...you just get lost

Moderator: yeah, it never ends, it's full of sculptures...a room after the other

Sofia: and it's full of people

Alessandro: I have my aunt who lives very close to the museum and... we went there for 5 consecutive days because we couldn't visit it in just one day... I mean you have to run and, instead, in this way we visited it in a relaxed way. There was the instructor [museum guide] that explained to us... the remains, the classical stuff

Moderator: the classical stuff [laughing]

Alessandro: yeah, the classical stuff, fossils and there was also... the homo sapiens... how do you call it?

Sofia: in hyperthermia?

Alessandro: yes, in hyperthermia...

Moderator: wow

Alessandro: [unclear because of cross talk]

Moderator: yes, I believe you. Can you just remind me your names?

PP: Giuseppe, Sofia, Serena, Rosa, Margherita, Tommaso and Alessandro

Moderator: good... I'll ask you another question then...

Alessandro: I'm sorry I just remembered I also went to a museum on the *Garda Lake* and to the *Catullo's Caves*

Moderator: wow, I love those places...

Valentina: well, I went to the *Postumia caves*

?: yeah me too

Moderator: did you go all together?

Valentina: him and I went with our middle school class

Tommaso: yes me too

Sofia: me too [group laughter]

Moderator: alright, nice

Moderator: so, listen, before the visit that we did at the Natural History Museum, had you ever done something in English? Always in a museum or...outside of school?

PP: mmm no

Tommaso: yes, we went to a performance in English

Moderator: ok

Rosa: I did a guided tour in English at the UN in London

Moderator: at the UN?...wow...nice experience

Rosa: yes

Moderator: hem...ok, let me just give you these sheets [handing the conversation aids sheets]. Question number 4...‘how was participating in the museum visit at the Natural History Museum in English’. You can choose one or more words and maybe share the reasons why...you can think about it for a few minutes

Rosa: shall we underline?

Moderator: only if you want

Giuseppe: Can also we choose more than one?

Moderator: Yes (...)

[05:52-06:24 students think about their answer]

Moderator: would you like to go first Sofia?

Sofia: ok, I underlined ‘fun’, ‘stimulating’, and ‘different’. So, ‘fun’-

Giuseppe: (overlapping) me too [laughing]

Serena: me too [laughing]

Alessandro: I wrote...I was honest, ‘difficult’ because it was the first time for me- I mean that I went to the museum- the first time that I did it in English, that I interacted in English. It was difficult and I couldn’t understand certain things to be honest and I had to ask the others,

but-t it was nice [laughing]

Moderator: Does anyone agree with Alessandro?

Tommaso: ME [group laughter]

[unclear because of cross talk]

Moderator: always for the same reason?

Tommaso: me?! Yes [group laughter]

Giuseppe: me?! Yes [mocking Tommaso]

Moderator: Sofia, what were you saying?

Sofia: [I was saying] ‘fun’ because we had fun walking around the museum looking for the insects and animals and ‘stimulating’ because it can allow us to maybe visit other museums, and instead of having a guided tour in Italian, we can do it in English...just to learn how to practice with English, how to speak it, and ‘different’ because it was the first time that I did something like this

Moderator: (...) did you choose the same words? [addressing the others]

Tommaso: ‘fun’, ‘useful’ and ‘different’

Moderator: why ‘useful’?

Tommaso: ‘useful’ because-e-e...it’s always useful to go to the museum, you learn something new

Moderator: mmm

Alessandro: you have one more word in your brain

Moderator: you have one more word in your brain [group laughter]

Moderator: what about you Giuseppe?

Giuseppe: ‘different’ because I never did it in English and ‘stimulating’ because it was something different and it engaged us-

Alessandro: (overlapping) extravagant

Moderator: extravagant?! [asking for further explanation]

Giuseppe: 'fun' because- [unclear because of cross talk]

Moderator: did you like for example to work as a group?

PP yes

Serena: yes, but I think it was because this way we could strengthen the sense of community in our class because we are sort of [divided into] different groups-

Alessandro: (overlapping) yeah that's true and I don't like this

Serena: yeah and it's not nice

Moderator: what class are you again? 1st or 2nd year?

PP: 1st year

Serena: we're too many little groups and, of course, it's the 1st year so we can't really expect to be all [friends], but maybe with time and with the help of these group activities we can feel a bit more [united]

Moderator: yeah?! And what about from the language perspective? Was it easier to work as a group?

Tommaso: it was easier to work as a group

PP: yes

Giuseppe: yes, because if someone didn't understand and needed help, there was someone else to fill in-I mean this was the positive aspect

Margherita: yes because there are high and low moments, I mean there are those who are a bit better and those who aren't, and also it's not like we learn that much English anyway thanks to our teacher

Tommaso: she doesn't even know what English is

Serena: she doesn't even know what English is

Giuseppe: yeah, but she also speaks in English in a way that [rolling his eyes at the ceiling]

Rosa: you know she's recording right?! [group laughter]

Moderator: I'll be the only one listening to you and I'm not going to transcribe everything [group laughter]

Giuseppe: anyway, I didn't work that much with my group because it was me and [name of another student] and all the others were ahead of us

Alessandro: yes, that's true...he [Giuseppe] was with me because he wasn't interested [laughing]

Giuseppe: that's no true...I was looking at the exhibition and I didn't have any of the worksheets and I turned around and the others had disappeared

Alessandro: yeah, that's true [group laughter]

Sofia: there were lots of people that were a bit lost

Tommaso: who? [group laughter]

Sofia: you didn't even know in what group you were [addressing Tommaso]

Giuseppe: [the organization was a little bit...but the exercises were fine?]

Moderator: What was difficult to do?

Alessandro: to find the others

Moderator: so to get organised with the others?

Sofia: mmm for me it was really difficult to listen to the audios because they always got interrupted before the end

Moderator: mmm

Giuseppe: and they were not in order

Alessandro: I mean, with the words you could also use your logic and throw them in the text

Sofia: well not really, because you had to look for them and so you needed the audio to put the word in text

Alessandro: yes, but for example, what was it...*fish*...I can't remember the example

Sofia: *fishes...yeah, of course with some things you can just [guess]*

Moderator: do you still remember it? (...)

PP: yes

Moderator: and what do you think was fun? Think about the language especially

Alessandro: mmm well it was fun also because we did something different from the usual. The same things she [Sofia] said. It was nice to work as a group, and then I had fun because we went and looked for [things], around the dinosaurs...I was also attracted by-

Sofia: yeah, we also saw things that weren't written [on the worksheets], but we saw them anyway

Alessandro: yeah

Moderator: so, you did have a bit of time to observe the museum

Alessandro: I observed the room where-

Tommaso: I observed everything [group laughter]...yes, at some point I even got lost and I didn't know where I was but I [group laughter] even saw the room, the blue one...

Moderator: the blue room...the one with the fishes?

Tommaso: yes, the one with the fishes-

Serena: (overlapping) the room with the echo was amazing

Alessandro: (overlapping) I stuck my head on the glass

Tommaso: yeah, there was like a round platform and you clicked on it and [things] came out

PP: ah-h-h-h

Moderator: the multimodal platform?!

Alessandro: yeah, I loved making things bigger...like a child

Moderator: what is the first time you went to the Natural History Museum?

Sofia: yes

Tommaso: I had already been

Moderator: you had already been Margherita?

Margherita: mm mm [nodding]

Tommaso: [unclear]

Moderator: yeah, but I meant the one in Venice

Tommaso: oh, then yes

Giuseppe: yes, then it was the first time

Moderator: it was the first time

Alessandro: but in *Chioggia* there's one

Moderator: yeah, there are several, but I think this one is particularly nice

Rosa: [cross talk] yeah but they change every year. For example, a few years ago there was a dinosaur instead of the whale at the entrance

Moderator: yes, they changed...many times

Moderator: ok, question number 6. There are some phrases that I extrapolated from the questionnaires, so they're the ones that were written by the [students]... 'with which of the following comments do you agree the most and why?'

Serena: can we choose more than one?

[13:27-14:26 students think about their answer to question 6 on the conversation aids sheet]

Moderator: done?! Ok...who wants to go first?

Giuseppe: me

Moderator: Ok

Giuseppe: I put 'a' because it was, well it says here, 'nice to experiment with the English language outside of the school context', and I also put

'b', because, I need to be honest, it was much more interesting than a lesson at school [group laughter]

?: especially with [name of teacher]

Giuseppe: yeah, sometimes I feel like sleeping

Rosa: yeah [laughing]

Giuseppe: she's really absent as a teacher

[14:58-16:11 students discuss their perception of two of their teachers]

Moderator: what did you put?

Tommaso: who?! Me?! [I put] 'a', 'b', 'c' [group laughter]

Moderator: Why?

Giuseppe: We all put 'a', 'b', 'c'

Tommaso: well...

Moderator: Why do you think it was more interesting than a lesson at school, apart from the [name of teacher]? [group laughter]

Tommaso: because in school you're practically at the desk...

Sofia: you're still

Alessandro: your legs are atrophied

Tommaso: instead when you go [to the museum] we move and see something new

Alessandro: because instead of seeing it in a book you see it for real

Serena: and it's also more interesting because you think of it as a game, you don't feel of it as "how boring, this is a lesson"

Moderator: mm mm [nodding]

Serena: I mean you're also standing and you move, speak to the others, while in class...

Alessandro: well, also in class

Serena: well, ok sometimes

Moderator: (...) did you put the same things? Always 'a', 'b' and 'c'?
[addressing the others]

Giuseppe: 'a', 'b', 'c'

Moderator: did you put something else Margherita?

Margherita: only 'b' and 'c'

Moderator: ok, so a 'new way to visit the museum'. Why? What do you usually do on a school trip [to a museum]?

Serena: well we normally do it in Italian

Moderator: you do it in Italian

Sofia: yes, and then we just follow a guide and we stay there still and straight like poles, staring at the [objects]

Moderator: so is it always...frontal?

Sofia: yes

Tommaso: where did we go last time?

Sofia: [we went to] the one...

Serena: the one with the stars in *St Mark's*...close to *Zattere* [one of the areas in Venice]

Margherita: with our history teacher

Serena: and also the one...

Giuseppe: oh yeah how awful...

Tommaso: with those old people who [were very rude to us]

Rosa: yeah it was the museum of old people [laughing]

Margherita: true [laughing]

Moderator: why do you say that?

Serena: because we were trying to talk quietly but they were just like “mb mb mb” [miming complaining]

Rosa: and there was that old lady that looked at us like this [miming disgust]

Margherita: oh yeah the one that stared at us [unclear because of cross talk]

Moderator: were you with a guide?

PP: yes yes

Sofia: yes, but the majority of us wasn't able to follow because that museum is very difficult to visit

Serena: yeah, exactly [cross talk]

Rosa: I was able to only follow partially

Sofia: all the rooms were very small and there were some people in the front that could hear and then lots of tourists and... you weren't really able to hear anything...and the guide didn't even have a microphone [cross talk]

Alessandro: yeah, while she was explaining I just took off and saw the entire museum on my own

Tommaso: [unclear because of cross talk]

Alessandro: yeah they only had chairs at the entrance

Sofia: there were lots of chairs in the corner s[cross talk]

Serena: yeah but they weren't for people to sit down but for the-

Moderator: (overlapping) invigilators

Serena: invigilators

PP: ah-h-h-h

Moderator: yeah the people that are there to control

PP: ah-h-h

Serena: yeah, usually they have sofas if you want to sit down, like at the *Guggenheim*

Giuseppe: how much did we pay that time? I can't remember

Serena: which one? (...)

Alessandro: the one that was organised by school?

[19:42-19:59 omitted because not relevant to the topic under discussion]

Sofia: what I can't understand is why we paid for the Natural History Museum if we're residents of Venice

Moderator: because you paid for the guided tour (...)

Giuseppe: the guided tour is always something extra

Moderator: because the entrance is free for you while the learning activity is always 80 euros

Giuseppe: well so we're almost 30 people in class

Serena: yeah, we didn't pay that much. How much was it? 3.10 euros...it was worth it

Moderator: [laughing]

Rosa: this one yes

Margherita: much better than the other one [cross talk]

Moderator: what do you think you learnt [from the experience]? Think about both English and science...

Alessandro: new words

Sofia: let's say that, if we need to do science in English...mmmm...for example the words related to animals...classes of the animal kingdom are very complex...some of them, because some time they are not even pronounceable [group laughter]. In fact, even when we had to orally present the poster, we had difficulties because some of the words were difficult...but it was useful anyway...instructional [whispering]

Sofia: also because the difficult words make it even more interesting

Moderator: ok...so both language and new vocabulary-but do you think that one time at the museum is enough-

PP: (overlapping) no

Moderator: to learn all those words?

PP: no

Alessandro: to me it's the same thing that we did at the MUSE [Science Museum in Trento]...one time every day...you spend one week to understand in detail all the things that you find inside...I mean, in just one day you can't really do much...you recall and then you forget

Sofia: there were so many things...

Serena: as in every museum

Tommaso: you just do one room

Giuseppe: and that's it [group laughter]

Rosa: [unclear because of cross talk] if you go to the *Louvre*, it takes you a week to visit it properly

Margherita: gosh!

Alessandro: it takes time

Rosa: The *Louvre* is gigantic

Giuseppe: I would never want to get inside it [the Louvre]

Rosa: why?

Giuseppe: all the paintings that are exhibited in there are either Italian or of other nationalities

Tommaso: [unclear because of cross talk]

Alessandro: but it's true...

Giuseppe: all the paintings that they have are either Italian-

Rosa: well, the British is the same thing

Moderator: well, yes, but all the museum around the world have a mixed collection

Serena: yeah, but also for the lessons...it would be much better to do an entire semester of lessons through English

Moderator: I know [laughing]...I mean, what you're saying is that it's not enough to do a 10 hour module-

Serena: I think we learn much more by speaking English visiting the museum than to do a lesson-

Rosa: (overlapping) traditionally

Serena: in this field with this teacher, because we don't learn nothing...we're always doing the same thing...it's been four weeks on the same exercise, we're just repeating it every time [frustrating tone]

Giuseppe: eh-h-h-h [unclear because of cross talk]

Moderator: but, what do you do? Grammar...?

PP: [cross talk] (...)

[23:10-24:32 omitted because not relevant to the topic under discussion]

Moderator: what do you think the difference is between doing a science lesson at school and at the museum?

Giuseppe and Alessandro: that is not interactive!

?: [unclear because of cross talk]

Moderator: that it doesn't have books? [laughing]

Moderator: in what sense "interactive"?

Sofia: it engages you more

Giuseppe: it engages you more

PP: [unclear because of cross talk]

Serena: and anyway the things and words that-we already said it...you're able to retain them in your head like *faeces* [group laughter]...for example if [name of the English teacher] gave a speech - incomprehensible anyway [whispering] – things don't make much sense, they have much more sense when you listen to a tour guide...

[25:09-25:22 omitted because students are still commenting on the language skills of the English teacher]

Tommaso: I think [that it's normal that it's different]...to stay in class at the desk, listening to the teacher, [it's normal] that we don't listen [group laughter]...and at the museum, even if you don't listen, at least you see and you retain something anyway. Instead without seeing anything and without listening, you look at the chapters and you just feel like taking a nap...that's it

Giuseppe: exactly

Serena: you just feel like taking a nap [laughing]

Alessandro: it's more engaging

Tommaso: [it's like she and I are talking and it's normal that you remember it because it's more engaging]

Moderator: because she's seen it too?!

Tommaso: yes, exactly!

Serena: anyway if we really want to make this comparison, "let's go to the museum" and everyone is like "YES YES" and "let's go to the classroom" and everyone is like "BLEAH", almost like they were dead...I mean, it's a bit like a spark that vibrates in your body, it wakes you up

Alessandro: let's say that, for 5 hours we're always locked up in the classroom, going out at least for an hour, it changes [the situation] a bit-

[26:23-27:06 omitted because students are talking about their wish to do the English lesson in the school garden instead of in the classroom]

Moderator: ok guys, let's look at question number 10...in pairs, think about-

?: the module?

Moderator: yes, maybe you can also do it together...think about the science module that you did with Paola T and Stefano TA (...)

Serena: I don't understand the instructions...

Moderator: think about the positive and negative aspects about doing a CLIL module, such as Science, in part at school and in part at the museum...things that you liked and things that you didn't like...or that didn't work

[27:59-30:00 omitted because students are thinking about their answer to question 10 on the conversation aids sheet]

Moderator: Alessandro, do you want to go first?

Alessandro: well...the positive aspect was that we worked in group and we learnt new things

Moderator: ok

Alessandro: then, the only aspect that I thought was negative, and I think it's what everyone thinks, was time, because we could have left an hour earlier-I mean to stay longer

Moderator: more time at the museum?

Alessandro: Yes, because the museum is already big ...we could have stayed longer...another hour

Moderator: what do you think guys? Do you agree with Alessandro?

PP: yeah

Moderator: what did you put?

Margherita: [The positive aspect was that] we learnt something at school, we thought "we won't be using this for anything else"...while when we went to the museum we rediscovered [those things] and so-o it was much more interesting because like "oh yes we did this already"...

Moderator: so it was a bit of a challenge?

Margherita: yes yes

Giuseppe: [when you talk] about the same topic at school, you get to the museum and you already know how to behave, I mean...you already know something

Moderator: ok

Rosa: yes, you're not totally lost

Moderator: and what about the negative aspects?

Rosa: I wrote the same one as his [pointing at Alessandro]

Moderator: so the one about time...that was a bit of a problem

Moderator: Sofia: what about your essay there? [laughing and pointing at Sofia's detailed notes]

PP: group laughter

Giuseppe: wait, a negative aspect was that I didn't know how to get to Piazzale Roma [the only bus hub in Venice]

Serena: I lead half of the class

Tommaso: I guided our teacher

Giuseppe: and then I finally got there, I said "we need to turn here"...

[32:39-33:13 students talk about how difficult it was for them to orient around Venice]

Sofia: so, among the positive [aspects], I wrote that "it was useful to do a CLIL module, it can be useful in order to prepare oral presentations", that is, it can help you with the speaking... "it can surely be useful to get to know each other better and socialize and improve our sense of community as a class", this is the second thing... while, for the negative [aspects], I wrote that... "even when we presented there were issues related to translating and speaking and also we found it difficult to agree with each other when working in groups..."-

Giuseppe: (overlapping) that is true

Sofia: both at the museum...

Giuseppe: not in my group but in hers

Sofia: and this happened and we had an argument...and the second [negative aspect] was that “time was too tight and we felt sad we couldn’t stay longer and work together”

Moderator: ok

Alessandro: talking about group work, there are three people in our classroom [unclear] I mean, I don’t want to say anything but...we always talk behind our backs...one says something like “I like this person because of that and that” and then the same person says to another “I don’t like this about him because...”

Giuseppe: for example he said “look how good you are” and you know that he just talked badly about you behind your back

Moderator: ok, but this is normal-

[34:36-35:38 omitted because not relevant to the topic under discussion; students are talking about theft episodes in their classroom]

Moderator: the last two questions and then I let you go because you need to get back to your lessons anyway (...)

Moderator: you will probably do a CLIL module next year...I’m not sure if it will be in science-

?: (overlapping) let’s hope so

Moderator: or in some other subject...why do you hope so?

PP: [unclear because of cross talk]

Giuseppe: [with the Science teacher 2 is always cool?]

Moderator: yeah, she’s cool

Serena: exactly [unclear because of cross talk] it’s much more interesting than math or English

PP: [cross talk]

Rosa: yes, but we could also do it in art history

Sofia: yeah, also art history

Moderator: so, if they asked you whether you wanted to do [the module only]

at school or both at school and at the museum...what would you choose?

- Sofia:** a part-
- Alessandro:** (overlapping) all at the museum
- Moderator:** all the museum? [laughing]
- Tommaso:** I think it's a bit useless [to do it] at school
- PP:** [cross talk]
- Rosa:** maybe at school you're more attentive and learn more things from the teacher but at the museum you learn more things in general
- Margherita:** I think [it should be both at school and at the museum] because school prepares you for the museum
- Sofia:** exactly, it prepares you and it would be nice to do the poster and present it
- Giuseppe:** yeah, I agree
- Moderator:** at the museum? [asking for clarification]
- Sofia:** no, at school
- Tommaso:** mmm inside the museum
- Sofia:** it would be nice to do it there too
- Alessandro:** well, but it would be nice to do it at the museum
- Sofia:** yeah, we could even do a power point as they have the power point projector [talking about the conference room at the Natural History Museum]...
- Moderator:** yes yes
- Sofia:** we could attach it
- Giuseppe:** a power point is much cooler than-
- Sofia:** (overlapping) yes, but it's more complicated because...we also had problems with groups...in getting organised to work together

after school because there are people that live in *Rosolina* [another village in the province of Venice] and there are people that live here in Venice...so transport was an issue for working together [in the afternoon]

Moderator: so it was complicated

Sofia: because, for example in [student name]'s group-

Alessandro: (overlapping) you mean in MY group, because he did nothing

Sofia: exactly the only people that worked were [name of another student], she took the poster home and worked on it on her own and then she gave it to Alessandro who completed the other part...

Alessandro: yeah, he didn't do anything

Sofia: and then they had to present it and they didn't know much and he [name of the other student] complained because well "you can't always work this way", but I mean...

Alessandro: yeah, he complained and I wanted to say "you did nothing"

Sofia: yes, he complained but I just wanted to say "you didn't do anything, not even read"

Giuseppe: well, I admit that I was also sick and I told the [Science teacher 2] "look, I didn't work on the poster because...without meeting up...we only had time at school and that day I was...sick"

Moderator: so there was the problem of working together for the poster?

PP: yes

Sofia: yes, but there weren't problems related to us

Moderator: of course, logistical problems

Sofia: problems related to transport

[38:15-39:28 omitted because not relevant to the topic under discussion]

Moderator: alright guys, the last question and then I let you go...[question] number 11, 'how did you feel during the visit?'

Serena: already done

Sofia: yes, me too

Alessandro: ‘proud’ [laughing]

Sofia: so I put ‘proud’ because I felt useful and engaged also to support my group colleagues...like if we didn’t know something, we helped each other...then, ‘amused’ for the same reason I said before, it was fun to work in groups and walk around the museum... ‘attentive’ because I paid attention to the details, I paid attention to the explanation, to the audios as much as I could, even though you couldn’t understand much...

PP: [group laughter]

Sofia: and ‘hooked’ because of the English language, because it encouraged me to try new experiences, also to visit other museums always with the mmm...

Serena: guide

Sofia: yeah, with the English tour guide...and ‘engaged’ because I felt useful too, in part for my group [blushing and smiling]

Giuseppe: I put ‘amused’ and ‘attentive’

Moderator: ‘amused’ and ‘attentive’...and what did you put? [addressing the others]

Alessandro: ‘engaged’ hem...then...’surprised’ also...

Moderator: ‘surprised’? Why?

Alessandro: because, well I’ll repeat myself, it was something different from the others, it was much more-e-e...STIMULATING, more...

Serena: Engaging

Alessandro: yeah, exactly, it was engaging...and then, I felt good about myself, and I think also the others, maybe [looking at the other participants]..anyway, I felt good about myself and comfortable, I mean...relaxed

Moderator: even though it was in English?

Alessandro: yes-well at the beginning I thought “GOSH guys...”, I was

desperate “guys, I won’t understand a thing in English”, but in the end each one understood something...I mean everyone had their own fears...the poster, for example...but in the end everything was easy...apart from the part at the museum that was the most difficult...I mean to catch up with...you [addressing the Moderator:]...who spoke in English and I thought “well” [laughing]

Rosa: because we also had to stay within the time frame

Sofia: for example, we spoke in English also with the invigilators, despite not knowing how to say things, using wrong words...but they helped us too to understand where the rooms were because I realised that we had the letters but the rooms had numbers...and that was complicated to go with the map to see the rooms, because it wasn’t really written there

Moderator: ok...good...and what did you put? [addressing the others]

Rosa: [I put] ‘amused’ because...it was a lot of fun to go there and [unclear] move...I also put [attentive] because when you’re a bit more amused you’re also much more attentive, in my opinion...and ‘hooked’ because it was a new thing and it was engaging because we all collaborated

Moderator: in your opinion, was it useful to use English outside of the classroom?

PP: yes

Tommaso: yes, but...it was much more useful for me to walk around the museum than staying in the conference room [second part of the museum visit]

Moderator: did you like it more when you walked around the museum?

Tommaso: yes, because to be honest, I got a bit bored in the conference room...

Serena: yes, because it was like staying in school

Sofia: but also because a lot of people hate sitting down...I HATE sitting down, I can’t do it, I need to stand up

Giuseppe: hyperactive

Sofia: yes

Serena: [laughing]

Sofia: but I don't think it's a flaw

Tommaso: I also liked that they left us free

Giuseppe: yeah, THAT'S TRUE

Rosa: oh yes

Tommaso: because if we just had to stay still listening to someone explaining to us everything...

Alessandro: ah-h-h [miming terror]

Sofia: boring

Tommaso: instead we were free to walk around

Alessandro: to be honest, at the beginning I was a bit like...and I asked [the science teacher] "do we work all together or in groups?" and she said at the beginning "all together" and I was like "noo, please we can't" and then she said "no sorry, you'll work independently"

Sofia: yeah I asked the same thing to Stefano TA [teaching assistant] "I'm sorry but will we work independently around the museum?" and he said "no no you'll work with us" and I [silence meaning discontent] and I went to ask her and Stefano TA was like "what?" [group laughter]

Alessandro: Stefano TA is great (...)

Sofia: yeah, but I mean the [science teacher] trusts us...if she let us free it means that she trusts us, at least partially

Alessandro: apart from those four crazy people that we have in our class [group laughter]

Sofia: you could hear the shouting from km away

Moderator: well, yeah, there was someone running around [laughing]

Alessandro: yeah, that was me and in fact the invigilator told me "you can't run here", but I did it anyway

Sofia: yeah, it's also because you were on hedge...like in a treasure hunt

Alessandro: like the short [inviolator] when my phone rang and I responded, and she told me "you can't talk here"

Sofia: yeah, she cursed you

[44:37-45:00 omitted because not relevant to the topic under discussion]

[End of recording]

Appendix N

Transcription conventions for the treatment of oral data

These conventions were created through integrating the transcription conventions used by Potter and Wetherell (1994), Carey and Asbury (2012), Poland (2002), and Markee (2015).

Identity of speaker

- Maria: pseudonym of an identified participant
- Moderator: the researcher facilitating the focus group session
- PP: several or all participants talking simultaneously

Interruptions

- How did you- the dash denotes interruption and uncompleted sentences

Overlapping speech

The dash denotes when someone's talk is broken off midsentence, and (overlapping) is included at the beginning of the speech of the speaker interspersing in the conversation of the person interrupted. If this speaker continues, then the transcription returns to where the original speaker was interrupted.

- R: She said that was impos-
I: (overlapping) Who, Mary?
R: No, Sonja

Pauses

- ... denotes a noticeable short pause
- (pause) denotes a two to three seconds break
- (long pause) indicates a pause of four seconds or more

Commentary in the transcript

- [group laughter] [] square brackets are used for verbal description of actions noted in the transcript, including non-verbal actions, and other comments

Garbled speech

- At that Emma just [doubled? Glossed?] words that are not clear are signalled with square brackets and questions marks
- [unclear] indicates a stretch of talk that is unintelligible

Feedback words and sounds

"uh huh," "yeah", "hmm" etc.

feedback words and sounds are only used when necessary to truthfully represent the speaker's meaning and intents

Held sounds

'No-o-o-o, not really'

sounds that are held are repeated and separated by dashes

'I was VER-r-r-y-y-y excited'

held sounds are capitalised if they are also emphasised

Emphasis

'You did WHAT?'

Strong emphasis is represented with capital letters

Other transcription symbols

(...) denotes omitted material

Reported speech and quotations

And I thought "Gosh, that's difficult"

Double quotation marks are used to signal reported speech

I put 'I liked it because...'

Single quotation marks are used to signal students' quoting from the written conversation aids sheet

Estratto per riassunto della tesi di dottorato

L'estratto (max. 1000 battute) deve essere redatto sia in lingua italiana che in lingua inglese e nella lingua straniera eventualmente indicata dal Collegio dei docenti.

L'estratto va firmato e rilegato come ultimo foglio della tesi.

Studente: Fabiana Fazzi matricola: 843931

Dottorato: Lingue, Culture e Società Moderne e Scienze del linguaggio

Ciclo: 31

Titolo della tesi¹: CLIL *beyond* the classroom: A pedagogical framework to bridge the gap between school and museum content and language integrated learning

Abstract:

ENGLISH

In the last two decades, several studies have reported on the benefits of Content and Language Integrated Learning (CLIL) on students' affective and cognitive gains, and just as many pedagogical frameworks exist to inform teachers' design and implementation of CLIL modules/units. However, CLIL is still confined within the classroom walls, and no study has yet investigated CLIL beyond the classroom. Thus, this PhD thesis addresses the above-mentioned gap by reporting on a three year action research project in collaboration with the Civic Museums of Venice and the Liceo artistico Marco Polo and aimed at: (i) developing a pedagogical framework to bridge the gap between CLIL learning at the museum and at school, (ii) understanding the impact of participating in a CLIL museum visit on upper secondary school students' attitudes and perceived learning outcomes. The project involved the museum staff, 322 upper secondary school students, 11 upper secondary school teachers and the Researcher-practitioner. A mixed method research design was implemented and results revealed that participating in the CLIL museum visit had a very positive impact on students' attitudes and perceived learning outcomes. Also, it was found that there was a connection between students' attitudes and their professional interests and type of school attended. Finally, a pedagogical framework was designed to support both museum educators and teachers' design and implementation of CLIL activities that bridge the gap between the classroom and the world beyond.

ITALIAN

Molti sono gli studi che hanno dimostrato che l'apprendimento integrato di contenuti e lingua (CLIL) ha un impatto positivo sugli studenti sia dal punto di vista cognitivo che affettivo. Altrettanto numerosi sono i *framework* sviluppati per guidare gli insegnanti nel difficile compito di creare e mettere in pratica moduli e unità CLIL. Tuttavia, il CLIL è ancora confinato tra le mura scolastiche e nessuno studio si è finora accinto ad investigarne le dinamiche e potenzialità in contesti non-formali.

Questa tesi di dottorato mira a colmare questo vuoto di ricerca descrivendo un progetto di ricerca azione della durata di tre anni in collaborazione con la Fondazione Musei Civici di Venezia e il Liceo Artistico Marco Polo. Il progetto aveva i seguenti obiettivi: (i) sviluppare un impianto pedagogico che permettesse di integrare l'apprendimento in CLIL sia a scuola che al museo, e (ii)

¹ Il titolo deve essere quello definitivo, uguale a quello che risulta stampato sulla copertina dell'elaborato consegnato.

capire l'impatto che partecipare a laboratori CLIL al museo ha sulla percezione degli apprendimenti degli studenti della scuola superiore e sui loro atteggiamenti. Il progetto ha coinvolto diversi attori, tra cui staff museale, 322 studenti, 11 insegnanti e la ricercatrice-praticante, appartenenti a tre realtà diverse: il museo, la scuola e l'università.

Un metodo di ricerca misto è stato implementato e i risultati rivelano che partecipare a un laboratorio CLIL al museo può avere un impatto positivo sia sugli apprendimenti degli studenti che sui loro atteggiamenti verso l'uso della lingua straniera in contesti autentici. Inoltre, i nostri dati dimostrano che c'è una connessione tra gli atteggiamenti degli studenti nei confronti dell'uso del CLIL in un contesto non formale e i loro interessi professionali e tipo di scuola frequentata. Questi risultati ci hanno permesso di costruire un impianto pedagogico in supporto degli insegnanti e degli educatori museali interessati a costruire dei ponti tra l'apprendimento integrato di contenuto e lingua a scuola e negli altri contesti.

Firma dello studente

Jobicus Ferrari



Università
Ca' Foscari
Venezia

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DICHIARAZIONE SOSTITUTIVA DELL'ATTO DI NOTORIETA'

(Art. 47 D.P.R. 445 del 28/12/2000 e relative modifiche)

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..... (prov. ...CH...) il ...26/04/1987..... residente a
.....CORROPOLI..... inVIA MONTAGNOLA.....
n. ...20...

Matricola (se posseduta)843931..... Autore della tesi di dottorato dal titolo:

CLIL *beyond* the classroom: A pedagogical framework to bridge the gap between school and museum content and language integrated learning

Dottorato di ricerca in ...Lingue, culture e società moderne e Scienze del linguaggio.....
(in cotutela con)

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DICHIARO

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