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Flipped Classroom: a new challenge of teaching

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Flipped Classroom: a new challenge of teaching
“Education is really aimed at helping students get to the point where they can learn on their own”

Noam Chomsky

a mio nipote Riccardo
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Introduction

This thesis is about Flipped Classroom and specifically about its use in teaching English as a second language in the second and third year of Middle lower School. The verb "to flip" means "to reverse", but what is to be a flipped teacher?

There is a spontaneous movement of teachers in the world that a few years ago began to experience this method. The moments of traditional didactics are flipped: what was being done at school it’s now done at home and what was being done at home it’s now done at school. To be inverted is therefore both the function of the teacher, who is not in the classroom to transmit content and notions, both the function of the student, which is no longer a passive subject but becomes a scientist, experimenter of the subject. This is not a completely new sin in the field of humanistic approach due also to the use of linguistics technologies. But the innovative elements of Flipped Classroom concern the strict necessity of the use of ICT and the optimization of class time for the production of material. The Flipped Classroom is therefore an additional tool to support the class book, to blended learning and to digital pedagogy.

This thesis aims to illustrate some of the principal tools used by teachers who adopt Flipped Classroom.

The first chapter focuses on the origins of Flipped Classroom, referring to Dewey's pedagogy, and also to Flipped Method initially used in the teaching of mathematics, started with Salman Khan and the Khan Academy.

There is then a description of the pioneering work of the two American teachers who coined the definition and have drawn up a manifesto: Jonathan Bergmann and Aaron Sams.

The second chapter describes the research that I have done at the I.C. Villanova Mondovi, in Daniela Tomatis’ classes of second and third year. It also refers to the considerations made by the Movimento della Avanguardie Educative about Flipped Classroom and the Digital School Project by INDIRE. The perception of time and the class textbook, through activities centered on the production of materials and more authentic performance, are the most interesting changes in Flipped Classroom.

There is the analysis of two activities for the second year and two activities for the third year. At the end of the chapter there is a questionnaire submitted to students about their perception of Flipped Classroom and their learning.

The third chapter is designed to describe how the role of the teacher changes in a blended environment, becoming a digital literate teacher. It outlines the path of educational policies for media literacy education and the strategies adopted by Italy so far.

The fourth chapter is devoted to the description of the virtual classroom, a fundamental element in Flipped Classroom. Inside the digital class, theoretical premises of digital pedagogy are put into practice. I tried to analyze the reality of the virtual class with the point of view of Gamification, briefly describing the three aspects on which it acts: cognitive, emotional and social.

Finally, there is the description of the platform Edmodo, and of the tools aimed to the creation of video material: Prezi, Educreation, and Padlet and finally the gaming platform Kahoot!, which transforms the traditional test in a quiz game.
Chapter One - Flipped Classroom: a new challenge of teaching

1.1 Flipped Classroom: a new challenge of teaching

Flipped Classroom recalls a radical reversal of the school. It is not a sudden revolution, but a long process in evolution that has deep educational roots. We can find a scientific contribution that introduces this theme at the beginning of the XXI century in the Journal of Economic Education (Lage, Platt and Treglia, 2000), but references can be also traced in all the movements of active learning described by Dewey. Flipped Classroom is not a new technology or the latest idea of a creative startup. It is not even a new experimentation or ministerial directive. It is a consistent pedagogy that emerges from the experience of teachers who want to change the school.

On the web it is possible to find a real manifesto\(^1\) redacted by those American teachers who can be considered the pioneers of Flipped Classroom in the world. In a nutshell, Flipped Classroom proposes to reverse the classic moments of the teaching activity: the lecture moves at home and study moves at school.

In a recent scientific publication\(^2\) we learn that a first reflection refers to the growing number of studies that clarifies the limits of the traditional lecture as a learning strategy (Gibbs, 1981; Bligh, 1998; Branford, Brown and Cocking, 1999; Butchart, Handfield and Restall, 2009). The prolonged passive listening, the difficulties of interaction, the lack of cooperation, the absence of feedback on real understanding. In a traditional lecture it is impossible to comply with the different rhythms and styles of the students and taking in account all cognitive limitations that weigh heavily in what is still the main teaching practice school (Smith et al., 2005). As known each class is very diverse and lectures are taught inevitably to the average student. This means that normally in class we will find students who are bored and struggling students who feel excluded.

A consideration emerges from the proven effectiveness of audiovisual languages and multimedia learning (Paivio, 1986; Mayer, 2001) and by the proliferation of digital video assets, educationally oriented and produced with original communication strategies, which are made freely available online. It looks possible to use technology to access the exposure of the subject content even outside the classroom. The use of digital resources also produces operational advantages: allowing each student to dispose of them without the constraints of space and time; everyone can follow their own learning pace, looking at a video several times, jumping between topics; even students who missed a class can enjoy the content. Teachers can individualize paths for each student and each one of them can complement the study materials as they wish. This leads students to develop a greater control and increase responsibility on their learning, facilitated by the operation with instruments that belong to their daily life and they have a positive feeling with.

1.1.2 A student’s lab

\(^1\) [http://www.thedailyriff.com/articles/the-flipped-class-manifest-823.php](http://www.thedailyriff.com/articles/the-flipped-class-manifest-823.php)

\(^2\) Cecchinato G.(2014). Flipped classroom: innovare la scuola con le tecnologie digitali. *TD Tecnologie Didattiche, 22 (1)*, pp. 11-20
The time in the classroom is no longer used for the exposure of content but can be used to perform another function, more significant and more critical, which is unfortunately not adequately supported by the school. The classroom than becomes the place for the application content, the phase of reflection and internalization. Classroom becomes the place where all students are engaged in analyzing, evaluating their own construction of knowledge, they respect and appreciate the different forms of intelligence (Gardner, 1987). By moving the lessons at home, the setting of the classroom can change radically, and the passage from an instructionist approach to a social and constructivist one can finally happen, so that students actively build their knowledge together. There is therefore a further shift of the focus of the classroom: the center of its processes are students with their own specific learning needs and no longer the text, the source of knowledge, and even the teacher as disciplinary expert. This happens also because of the progress of a society which constantly regenerates the knowledge and therefore requires the school to promote the development: activities now are more relevant and critical than the others in the past.

1.1.3 First inversion

The first Flipped Classroom reversal regards the stage of content use outside the class. New channels of communication are exploited thanks to the availability of educational resources on line, for example: video lectures, audio-visual products, texts, but also tools that allow simulations or online contact with experts.

One advantage is that the student can access the resources without constraints, can stop and restart the video, or read a text whenever necessary, depending on personal needs. The student feels at ease and at the same pace with the rest of the class even when is absent from school for some reason. The advantage is therefore to facilitate the student enabling him to recover the lesson, to keep up with peers and at the same time personalize their learning.

The network offers resources freely available. We remember MIT 'OpenCourseWare\(^3\) publishing entire courses by its most quoted teachers. \(YouTubeEdu\) or \(iTunesU\)\(^4\) are other examples.

development of skills rather than programs to be carried out. In the Flipped Classroom the teacher acts as a facilitator of the learning process, to support the development of cognitive skills and driving skills

1.1.4 Khan Academy

Salman Khan is a math teacher who a few years ago began to give his cousin private distant lectures. He began, for convenience, to record his video lessons, and seeing that his cousins learned more quickly, thought to publish its online video lessons for a wider feedback. Today, the Khan Academy is funded by donations from Google or the Foundation of Bill Gates. 3300 lectures of math, art, social sciences, computer science, economics etc. The large number of views reflects the fact that it works even if Khan Academy videos are not high-level graphics

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\(^3\) OpenCourseWare (http://ocw.mit.edu/index.htm)
\(^4\) YouTubeEdu (http://www.youtube.com/education), iTunesU (http://www.apple.com/education/itunes-u/)
differently from other educational on line resources. Cecchinato (2012) identifies at least two innovations in teaching explaining its success.

The first is the great expertise in the subjects covered, and the large capacity of synthesis. The second educational innovation is the communication strategy: Salman Khan does not arise as a teacher but as a tutor. The tone of the lessons is not formal, his thoughts seem thoughts aloud. The students are not abandoned after viewing the video but can access to a concept maps called knowledge map where they can monitor their own learning, perform the exercises and get immediate feedback. Every aspect, topics, time spent and exercises and mistakes are traced by an analysis system that produces accurate data and statistics. These behaviorist procedures are not new in education as evidenced by scientific research and teaching practice. The Khan Academy is not new even in the field of pedagogy. Is another resource functional to contemporary school. The Khan Academy can so be placed in the framework of Flipped Learning.

However, critical issues emerge regarding the educational aspects of the MOOC. For example, as reported by Doug Holton (2012), the MOOC Khan Academy, does not provide sufficient support to learners. The videos provided do not inform about the learning theories they refer to and what are the objectives to achieve and this can reduce the effectiveness and credibility. Moreover, it seems that these videos are almost never updated or changed. The teaching approach seems to be essentially non-active, based on the mere transmission of content. These lessons may be more useful before or after students have had laboratory experiments, simulation, game, field trials, or analysis of cases.

Flipped classroom may be described as the "perfect way of blending eLearning and classroom training and utilizing the best of both worlds". Advances in technology have drastically altered expectations for human interaction with instructional material, precipitating a departure from the traditional, instructor-led learning sessions in favor of self-directional models that prioritize student preference and target a degree of personalized instruction not always deemed possible solely in the conventional classroom setting. In constantly striving to maximize the time that trainers have with learners, flipped learning is beginning to redefine the classroom paradigm (Bergmann & Sams, 2014).

Essentially, the flipped classroom should best be understood as a method of maximizing class time with students, and this path leads to very different roles for both instructors and students. With students responsible for learning the material, the role of the instructor

5 cfr: Cecchinato, G. (2012) Flipped Classroom, innovare la scuola con le tecnologie del Web 2.0
becomes less "sage on the stage" and more "applied learning coach". For students, the shift is from passive note-takers to self-directed active learners who "increasingly define their own paths through content and organize knowledge in ways that have unique meaning for them" (Rosenberg, 2008). The reinvention of these roles conspires to create a learning environment that embodies the constructivist ideology, with the classroom emerging as a creative hub for learners engaged in meaningful activities that are focused on achieving mastery of skills and concepts, rather than simply providing coverage of them. In having access to information ahead of time, students become "primed" (Hamdan, McKnight, McKnight, & Arfstrom, 2013) for tasks that move beyond the lower end of Bloom's Taxonomy in the pursuit of high-order thinking, critical analysis, and practical application of concepts. With time available for these undertakings, students are able to fully explore the material, investigate content, and to work interactively; all of which promote a deeper level of comprehension (Rivero, 2013).

In terms of Bloom's revised taxonomy (2001) (Fig 1) this means that students are doing the lower levels of cognitive work (gaining knowledge and comprehension) outside of class, and focusing on the higher forms of cognitive work (application, analysis, synthesis, and/or evaluation) in class, where they have the support of their peers and instructor. This model contrasts from the traditional model in which "first exposure" occurs via lecture in class, with students assimilating knowledge through homework; thus the term "flipped classroom".10

Constructivist indicators of active learning such as authentic, inquiry-based, exploratory, experiential, and collaborative learning are common features of the flipped classroom. Students are encouraged to practice skills via class discussion, projects, hands-on tasks, group activities, role-plays, case studies, real-world exercises, and simulations. For the corporate environment, the aim of flipped learning is both clear and precious: to "make the learning experience reflect real-world experiences, enabling learners to transfer what they learn more efficiently and effectively to their jobs" (Sink, 2008, p. 208).

Conventional paradigms devote classroom time to teacher-led instruction, with subsequent practice left to occur outside the classroom. The key to the "flip" is that direct instruction happens outside of the classroom and guided practice ensues inside the classroom. Students are provided with tools and resources to facilitate learning, be it prerecorded lectures, screencasts, podcasts, videos, or reading material to be utilized before reaching the classroom. Consequently, time in class is freed up for mastery exercises and opportunities for students to

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demonstrate the knowledge gleaned from viewing the learning material in a creative and collaborative setting (Educause, 2012).

1.1.5 Second Inversion

The real innovation of the flipped classroom is lead-study class and the carrying out of the tasks and the phase of internalization of content. Classroom time, dilated, can radically change the setting of the educational activity. An instructionist teaching switched over to teaching and social constructivist.

The “liquid” society described by Bauman requires a pedagogy that is in step with the speed with which it transforms knowledge. Classroom activities in Flipped Classroom are structured so that the student is no longer alone in the process of content processing.

Classes become laboratories or workshops projects, richly equipped with various learning materials. Alone or in small groups, students move from an autonomous area of labor to another, creating their own social network of mathematics, science, literature, art. The classroom is organized in different centers of learning, a functional organization that calls on the choice of participation in a series of activities, relying on the choices of priorities and responsibilities. The seminar has a flexible program, allowing students to decide for themselves when a task deserves more time and when it is completed. Class reunions often begin and end each day, allowing time to negotiate and decide the tasks, share decisions and projects to follow. The teacher calls rarely the whole class together for a lecture group. The classes are composed of students of different ages, an environment group where children meet viewpoints and skills different from their own. In this “family group” it is also developed the learning cooperative and shared social responsibility, with older students helping the younger ones. Teachers acting as observers, guides and resource providers, distribute and offer materials and experiences tailored to the needs and interests of students.

Within the class, the teacher circulates among the students, guiding the learning, commenting and responding to their work, inviting them to have questions and suggesting further readings.

The production of video lessons and the use of digital resources by teachers in first is perhaps the only strategy to create products that meet specific needs.¹¹

1.2 Flipped Classroom: Aaron Sams and Jonathan Bergmann

The Flipped Classroom method answers questions educators and teachers have probably asked themselves many times during their own career: what is the best for my students in my classroom? How can I translate the contents of a lecture into useful information for homework?

This chapter shows you how Aaron Sams and Jonathan Bergmann, respectively an educator and a science teacher, found together a way to motivate students to achieve their principal goal at school: learning having a real competence to be active citizens in the real world.

¹¹ Cecchinato, G. (2012) Flipped Classroom, innovare la scuola con le tecnologie del Web 2.0
*Flipped Classroom* is defined by Bergmann and Sams: “that which is traditionally done in class is done at home and that which is traditionally done as homework is now completed in class”.

The discovering of a software which can record PPP including voice and annotations, converting everything into a video file, made Aaron Sams and Jon Bergmann aware their way of teaching would have changed forever.

Recording their lectures for the student who missed the class, in order not to waste time to repeat them twice or more times, they allowed their students not to be missed out on learning. They provided them the chance to stay on the same pace with their mates. Moreover, those videos could be a help to revise the topic before the final exam. So they put the videos on line and in a few weeks they received e-mails from students and teachers all over the world. “We participated in several online science teachers forums, and we began to share the links to the recorded lectures there. Teachers from all over the country began to take notice. Chemistry teachers began to use our video lectures as plans for substitute teachers, and some new teachers used them to learn chemistry content so they could teach it to their students. All in all, it was amazing to see that what we were doing in our small town was being noticed across the country” (Sams & Bergmann, 2012 pag.19)

Sams noticed that his students really need his physical presence when they got stuck but not when he gave them content. So, together with Bergmann, they started to record all of their lectures, so that students viewed them as homework while, in class, they helped those who needed to focus on something that was not clear, and made together labs, experiments and problem solving exercises.

Flipping the classroom means to tailor lectures to special and individual needs. The students, especially those who are overscheduled or struggling with topics, can receive a personalized education.

How Sams and Bergmann reflect on the present model of education at school is interesting. In their book *Flip your classroom: reach every student in every class every day* they write that “the present model of education reflects the age in which it was designed: the industrial revolution. Students are educated in an assembly line to make their standardized education efficient. They are asked to sit in nice neat rows, listen to an expert expound on a subject, and recall the learned information on an exam. [...] The weakness of the traditional approach is that not all students come to class prepared to learn. Some lack adequate background for the material, are uninterested in the subject or simply been disenchanted with the present educational model”.


1.2.2 The Flipped Mastery model: a way to personalize education

So how is it possible to personalize an educational model for a wide range of students? How can a teacher be sure that everyone learns when there are so many standards to cover?

Sams and Bergmann began to share their model with educators and received a positive feedback that considered it “reproducible, scalable, customizable, and easy for teacher to wrap their minds around” (Sams & Bergmann, 2012)

As soon as they started sharing their classes around the world, posting them on the Internet, they received a mail from a neighboring school district, wanting them to come and tell them about the flipped model. This is an important point to underline since communication between teachers and school has created in almost ten years a strong web of professional educators and teachers who share instruments, but also tools and video lectures for free on the Internet, through forums and specialized social networks. They share experiences above all, building up day by day a human resources database for Education as we can see in the following chapters.

1.2.3 The Mastery-learning environment

After one year of experimenting flipped chemistry classes, Sams and Bergmann gave students a comprehensive test in which they had to analyze a household substance and chemically determine some quantitative property of that substance. It was the same test they used to give their students in the past, in order to check what they had learnt. Although their students had performed better on test than in the past, even using the flipped method, they demonstrated to have learnt just for the test and not to have a competence outside the “comfort zone” at school. How to make them really manage chemistry?

It immediately became clear that it was not necessary to link video lectures to the curriculum making students watch the same video at the same time, but creating a mastery-learning environment.

This means that when a new student joins the class in the middle of the year and has got the necessity to work through the lectures at his own pace, he can easily access to a complete database and simply follow his own rhythm. Mastery learning became to change students’ abilities to become self-directed learners.

In Table1, we briefly summarize the key components of mastery learning analyzing the advantages or disadvantages of this method and likening the differences between brick- and-mortar schools and semi brick-and-mortar ones.
Brick-and-mortar school’s Mastery Model - Key components

- Students work in small groups or individually at an appropriate pace
- Teacher assesses students and gauges student understanding
- Students demonstrate mastery of objects on summative assessments. For the one who does not master a given objective, remediation is provided

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>More cooperation among the students</td>
<td>Teachers repeat themselves several times</td>
</tr>
<tr>
<td>More student self-assurance</td>
<td>Many assessments to be written</td>
</tr>
<tr>
<td>Students receiving second chance</td>
<td>Assessing many objective at the same time</td>
</tr>
</tbody>
</table>

Technology explosion
As we can see from the scheme in Table 1 above, in a traditional school, Mastery Model increases cooperation, self-assurance and the conditions, for those who need more time to achieve an objective, to have a second chance. When digital technologies became part of the school system, the Mastery Model could easily improve. Actually it made possible to transform the disadvantages in opportunities for both the teacher and students. That time spent in class to reteach topics is now spent at home watching the videos, which be stopped, rewind and watched again and again. Teacher Talking Time is reduced at the essential in class, where are the same students to ask the teacher for help when they need further instruction.

Moreover, the time to grade assessment is greatly reduced since questions are graded by the computer. A big deal of test is contained in the big database each teacher creates day by day, allowing the students training their knowledge having access to multiple and different tests.

1.2.4 The Flipped-Mastery Classroom

The Flipped Mastery Classroom is actually the result of the union of Mastery Model and technology. In fact it is the environment in which students and teachers plan their objectives and
work together to achieve them. On one hand students have to achieve the goals predetermined by the teacher, on the other hand teachers have to embody some peculiar and necessary characteristics:

- **The teacher must be a content master**: an expert with the ability to move from a topic to another and interconnecting the contents of the topics.
- **The teacher must be able to admit whether he or she does not know the answer to a question by his or her students**: the teacher is the lead learner and must demonstrate his or her students how to “swim in the vast ocean of information”.
- **The teacher must be able to flow through a class period in a nonlinear fashion**: the teacher must meet the student at his or her own point since mastery model puts them in their specific level.
- **The teacher must be able to relinquish control of the learning process to the students**

Sams and Bergmann (2012) summarize five key components that are necessary to make the flipped mastery classroom work. Every unit will have a list of objectives to be achieved, and correspondent packets of videos, textbooks, labs and learning activities. In this way students can monitor their knowledge.

1- Establish clear learning objectives: every student wants to achieve an object but it must be clear, coherent with the national frameworks and state standard.

2- Determine which of these objectives are best achieved through inquiry, and which are best learned through direct instruction: some objectives need to be taught directly, some other ones can be taught through videos. You may not need to record a video by yourself because on the Internet many teachers are making their own videos available.

3- Assure student access to videos: you can make the video available in several ways. You can post them online, you can post them on school servers, you can burn DVD.

4- Incorporate engaging learning activities to be done in class: each unit contains notes for the video, a list of experiments that can be done or other related activities.

5- Create multiple versions of each summative assessment for students to demonstrate their mastery of each learning objective in a particular unit of study: in this case a teacher can use a testing generator or quiz model. For example Moodle.
1.2.5 The role of the student

In the Flipped Mastery Model the role of the student changes. In the traditional model students are asked to "sit and get" the knowledge coming from the teacher who also teaches them how and when to learn. Students may accept this role and passively wait for the further step even if they had already assimilated the concepts with the risk of getting them bored and discouraged, or may not, worsening the consequences and making themselves feeling lost and in the end stop studying definitely.

In the Flipped Mastery Model they feel at ease because learning becomes a challenge to be explored. They are asked to take responsibility for their own learning. To do this, to personalize the classrooms is necessary.

Personalizing the class means simply that the teacher follows each student day by day in his or her growth. Correcting the test making him or her aware of the slightest mistake, sharing the objectives, interacting with student constantly, in order to know them so well that the backgrounds became clear to everybody and every talent can be fed.

In this way learning becomes the center of the classroom. Walking into a traditional class makes you in front of a teacher talking to students. Walking into a Flipped Mastery Classroom makes you in front of a conversation between students with the exceptional participation of the teacher. This happens because the teacher has already provided the tools and materials to learn so that he or she has only to help students develop. Students come to class and they already know what they have to do.

Sams and Bergmann (2012) refer to their classrooms as learning spaces where teachers inevitably become educators so that students realize that the point of school is to learn and not to be taught.

As illustrated in Table 1, when Mastery Model meets computer technology what in a traditional Mastery Model remains a disadvantage, here becomes an advantage. Is the case of saving paperworks. Students have in fact an immediate feedback when they come to the teacher to discuss what is clear and what is not. Monitoring the progress of the students during the labs and immediately after their test, teachers do not give them the time to get stuck too much on their problems. Students are in fact constantly checked and guided by the teacher who corrects them on the spot.

The way student demonstrate they have learnt can be manifold. In fact, the Flipped Mastery Model is in compliance with the UDL (Universal Design for Learning). UDL is a theory generated at Harvard University: it provides students with a lot of means of representation, expression and engagement.

Giving the students the choice in how to learn things, they best perform when they have to demonstrate learning. Someone will learn by videos, someone by textbook etc. Consequently someone could ask for a written test to demonstrate his or her understanding, some other one could ask for an oral exam. In Bergmann's science classroom happened that "a student who texted him and asked if he could make a video game for his assessment. Jonathan approved his
alternative assessment proposal without any idea of what the product would look like. This student, Nic, set the new bar for innovative assessments. Nic walked into class a few days after the text with his video game console, plugged it into the SMART board, and proceeded to astound us as he demonstrated the game and understanding of the learning objectives”. (Sams and Bergmann, 2012)

1.2.6 The role of the teacher

In the Flipped Mastery Model teacher becomes a supportive coach who is not afraid if students are not learning, but is aware that, working on to find the best way to make the students involved, they themselves will discover their personal learning style. This happens even if teachers actually do not do anything new. For millennia students have been expected to come to class prepared to discuss and interact with knowledge they have been exposed to (Sams and Bergmann, 2012). What happens in a Flipped Mastery Class is the “marriage” between good pedagogical principals and computer technology.

The Flipped Teacher starts at the very beginning of the year building up a web site tailored on his or her classes. It is really recommended to have one web site for all the classes in order not to weigh teacher’s job down. This means that different classes will follow the same program but not at the same time, in fact it will depend by their own rhythm and learning style.

Building up a web site is really simple and can be done for free.

In the brief scheme illustrated in Table 2 we summarize what a Flipped Teacher needs to start the academic year (Maglioni e Biscaro, 2014)

<table>
<thead>
<tr>
<th>Web site sections</th>
<th>In class activities</th>
<th>Home works</th>
<th>School register (if the school doesn’t provide an electronic register)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In class</strong></td>
<td>Prepare cards with the names of the students. Students will pick them and form a group with other students</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Home works</strong></td>
<td>5 minutes explaining students the content of the video they watched home</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School register</strong></td>
<td>Use the Smart board to give them instruction (or print them on a sheet of paper if the school does not provide a Smart board)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As we can see from Table 2 teacher's web site will be divided into sections: in class activities, home works and School register. This is a simple way to help students to reach what they need every day to complete their assessments. This is also important for parents who can easily access to what their children do in class and what are their activities at home. This also a way to involve families in their children’s ordinary life allowing them to observe their path.

In Table 3 there is a short list of how a flipped teacher usually acts in class. Flipped Teacher creates every time different combinations of students’ group in order to make them able to interact with each of the component of the class. This will never be a commanding action, but teacher has to explain the student the reason why they are always changing mates. Random extraction ensures fairness between students and helps them to become responsible and prepared to the world of work where a “team working” attitude is always appraised.

A short explanation of the video is recommended only when it might be misunderstood. What is suggested is starting directly with the instruction projecting on a Smart Board or through printed sheets of paper. Dictations or voice instruction do not fall within Flipped Classroom approach (Maglioni and Biscaro,2014) since they steal precious time to the activity. Teacher can eventually help those students who need help every time they need clarifications during the lesson.

The example above is just one of the million kinds of arrangements a teacher can plan in class. In the Flipped Classroom attitude a teacher becomes an education speaker and has to learn to design thinking. Ewan McIntosh equated formative assessment to a GPS 12.

The teacher is equated to the GPS who recalculates the route to help the student-driver get back on track. Student can ignore his guide or can follow GPS, deciding whether accepting the advice and redirection of the teacher or drive himself into misconception. Teacher is responsible to evaluate each student’s path and provide feedback.

1.3 The teacher as a digital literate: how to create an educational web site and an educational video

Digital environments, flexible and customizable, allow teachers to recreate their original environments. Learning to create material on their own, teachers become the lead prosumers as Toffler anticipated in 1980. A prosumer is a digital literate who can build up his or her own media. In the case of Flipped Teachers, video material is the instrument that manipulates what books did before. Educational videos become together with personal web sites, personalized media tailored on the needs of a specific class, in a specific school.

Maglioni and Biscaro (2014) illustrate the main points to follow to create a good quality educational video, standing on a study conducted at Pennsylvania State University. In this instructions videos are meant to be short, ten minutes long maximum. They are not to be create by the teacher him or herself, but can be reused if it is coherent and suitable. For example,

12 Notosh- learning |digital|design thinking : http://notosh.com/who-we-are/ewan-mcintosh/
documentaries, movies can be suitable for the lesson. Finally, a video must focus on one topic at time in order not to get the students confused.

1.3.2 Making a video

The first step is to prepare all the “ingredients”: images, sounds, written contents organized in a schedule, or a series of video to mix. In this case there are several software able to rethink the structure of a video.

The second step is to record our video: we can choose to screencast our PPP, or recording our project with our mobile phone or simply with QuickTime player software available for free on the Internet.

The third step is publishing our video on line: we can use Vimeo or Youtube.

Firstly, teacher has to create a personal account. On that account teacher can upload the video in the proper format. Than teacher can publish it on the web adding tags or key words in order to be found easily by the students or teacher all over the world.

1.3.3 Teacher’s website

Google provides a simple way to create a web site without the language of HTML. The only thing a teacher needs is having a Google account. Otherwise an account can be created in a few minutes. There are several different ways to create a web site or an educational social network such as Edmodo where a teacher can share material, assess and where students can monitor their learning aims. We will see some examples in Chapter 4. Especially referring to teacher Tomatis’ blog The Machine goes on. There are many other ways to share contents with the students such as having a blog where to post everything i.e. using free platforms as [www.wordpress.com](http://www.wordpress.com).

1.3.4 How to teach students to watch the videos

It may seem a simple action we are used to do every day, but watching a video on YouTube does not mean watching a video on YouTube to learn things. Educational videos request a special approach: they need to be watched in the same way a book is read, or a math problem is solved. Concentration and silence around are necessary, as well as I-phone, mobile phones or any other device has to be switched off. They are distractions.

In order to train students well, the first days of the academic year, teacher can make a simulation in class watching the video together with the students.

Standing on Sams and Bergmann (2012) experience “we make liber use of the Pause button. [...] All students want to control the video which, of course, is the point. After watching the video, a discussion takes place on how best they can control the videos. Is incredibly necessary also to teach them to note-taking. Cornell (nota Cornell) note-taking system is useful not only to note-taking but also to ask questions and summarize what they have learned.
After the instruction on how to take notes there is a *Question and answer session* in which students have the chance to clarify their misunderstandings and also suggest teachers improving their lectures when they lack in something. Every student must ask at least a question about each video so that even the most shy and quiet student has the chance to challenge him or herself.

Involving all the students and making them real protagonists of the lesson, let the creativity, the sense of responsibility and the capacity of managing real life problems emerge from those students who in the traditional methods risked to be dismissed because of absence of motivation. Where motivation is lacking, talent will not emerge.

But how can a teacher be sure that every student has watched the video? A study conducted at Pennsylvania State University (Zappe et al., 2009) suggested an on line test after the watching of the video. Test can be useful for students in order to focus on the key point before going to class the day after, and also to monitor whether video has been seen or not. Otherwise a more traditional method can be used: a teacher can ask for student’s notes in order to share with them what do they have learnt from the video and filling the gaps.

### 1.4 Class time: how does it change in the Flipped Model?

So far we have illustrated how the roles change in Flipped Classroom and how this change can flip even the perception of the possibilities that a lesson can give students. Thanks to the digital revolution, thanks to the fact our student are digital native, we can see how time seems to pass faster than before. What was called traditional lesson even just ten years ago now is obsolete. Digital students’ mind is always switched on, as a digital device. They start their daily activities with a digital alarm clock on their mobile phones, they play social games challenging people from all over the world at the same time. They already know what is going around in South Africa, in Georgia or in the USA, if they are interested in, by a simple search in the Internet. If they want to know the Capital of Alabama, they won’t ask their teacher any more. They will ask Google.

So, if time is going faster, teachers can not expect to organize their class time in an obsolete dynamic.

Saving time with the Flipped Method does not mean to steal precious time for learning. It means that time is spent in a different schedule. “Time as a valuable resource has made flipped training an attractive alternative to traditional face-to-face instruction, and the application of new skills it fosters, enabled by the accessibility of information, is enticing to all types of organizations” ¹³.

Let’s see how the pioneers of this method organize time in class and let us focus on Foreign Language Classes introducing what is described in the following chapter.

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If the lesson is taught home by a video, what a teacher can do in the entire lesson at school? In class time is the biggest benefit Flipped Model gives to teachers and students. Engaging activities, labs, exercises, role-play and so on and so forth have now a wider time space.

In a Foreign Language Class this means that teacher records grammar lessons and conversation starters. Teacher can create video with Flashcards reporting audio and pronunciations device. In class students have time for conversation between each other. In a Foreign Language Classroom students are afraid of being asked to talk in the foreign language. Sometimes they need to have a look at their own copybooks or dictionaries where they can remind their vocabulary. This means that if a teacher wants to start a conversation with the students he or she has to do a warm-up activity or crate a brainstorming scheme to recollect the vocabulary students will use through the conversation. Thanks to the flashcards or through videos already seen by the students the night before the lesson, activities such as previous contents’ explanations can last the half. In fact, explanations are transformed in real world session of questions and answer and the remaining time, which was usually divided into two parts, is now recollected in practice and lab activities.

In the following scheme Table 4 we can see a comparison of Class Time in Traditional Versus Flipped Classroom, ideated by Sams and Bergmann (2012, pp 29).

1.4.2 Assessment in the Flipped Model

Assessment’s value can be considered as a tool to verify what kind of motivation stands behind a student’s work. Students used to fear assessments because the most of the time they are not aware of the reason why they are learning something. If they ignore their objectives, they will never achieve a good evaluation. They may be prepared for a test, for the final exam, but they are often “programmed” to do so because they do not want to be dismissed. A teacher has to make the students understand that their main objective is not to be admitted but to learn.
Comoglio (2002) defines two types of assessments:

- Continuous: monitoring the student in a long period of time
- Personalized: so that each student can self evaluate

This kind of evaluation perfectly fits with Flipped Classroom Model, giving a continuous feedback to the student. For the Flipped teacher, every in-class activity represents personal use of the competence or knowledge. They can be paper, PPP, oral exams or test and so on and so forth.

Teacher can use traditional way to evaluate students. What changes is the regularity and the amount of material teacher has to assess.

Anyway what Bergmann and Sams state is that: “one of the benefits of the flipped-mastery model for the students is that they are not allowed to turn in junk. If they submit unacceptable reports, we simply hand them back and make them fix their work. Students who are just trying to “get by” quickly discover that they are better off turning in quality work the first time instead of poor work they will have to redo”. (Bergmann and Sams, 2012)14.

Most of the teachers around the world are due to record their students grades into a system programmed by the school or the institutional rules. In the Flipped Mastery class there can be used a hybrid system: there is a summative assessment worth 50% of a student’s grade. “Students must score at least 75% on each summative assessment before a grade can be entered into the grade book. The other 50% of the grade is for timely progression toward mastery of individual formative assessments”. (Bergmann and Sams, 2012 p. 102).

The pre-class assignments that students complete as evidence of their preparation can also help both the instructor and the student assess understanding. Pre-class online quizzes can allow the instructor to practice Just-in-Time Teaching (JiTT; Novak et al., 1999), which basically means that the instructor tailors class activities to focus on the elements with which students are struggling. If automatically graded, the quizzes can also help students pinpoint areas where they need help. Pre-class worksheets can also help focus student attention on areas with which they’re struggling, and can be a departure point for class activities, while pre-class writing assignments help students clarify their thinking about a subject, thereby producing richer in-class discussions. Importantly, much of the feedback students need is provided in class, reducing the need for instructors to provide extensive commentary outside of class (Walvoord and Anderson, 1998). In addition, many of the activities used during class time (clicker questions or debates) can serve as informal checks of student understanding. 15

Resizing this system in the Italian one, standing on the experiences Italian teachers are doing in their own classes, sometimes test could be eliminated when there is a great occurrence of activities, based on all the needed competences.

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14 Sams, A., Bergmann, J. (2012) Flip Your Classroom Reach Every Student in Every Class Every Day
15 Cynthia J. Brame, CFT Assistant Director in Flipping the Classroom, (http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom)
Assessment becomes a sort of challenge for the students, especially if the evaluation is done in the shape of a game. An example is the digital platform Kahoot that will be analyzed in Chapter 2.

1.4.3 Advantages and disadvantages of Flipped Classroom method

Many are the perplexities teachers have had so far facing with new ways of teaching and evaluating students’ mastering. Anyway there are some aspects even those who every day face complicated school environments can not deny.

Flipped classroom offers a big deal of advantages starting from in class time increasing. Time is now spent for laboratories, fixing of concepts and stronger support of the students. Time to know better the students and crate a stronger relationship with them. Weak students can be helped by stronger students. Based on creativity and challenge, flipped classroom offers a great opportunity to increase excellence in the strong students, and to improve the weak students. Moreover parents can learn more from their children watching the video with them. Costs are really low: all the devices can be easily provided by the school: a computer, a microphone, and eventually a web cam. We have already stated that flipping the classroom does not necessarily consider to use digital technologies. Flipped the classroom is not a question of tools, but a question of methodology. A teacher who does not have any kind of digital support can flip the class using textbooks or sheets of paper and giving them to the students the days before the class. Doing so the teacher will deprive him or herself of the opportunity of going faster thanks to technology. Collecting every day one or more videos, teacher will automatically create a huge database of lesson, always consultable and available for the students, without accumulating papers and awkward materials.

Disadvantages will always come up, since this is not a final solution: flipped classroom is just one more instrument to solve teachers’ and students’ resistances to development.

If it can be considered a disadvantage, the necessary time to prepare a Unit increases. It happens mainly at the beginning of the year. It means that both teacher and students have to understand what their objectives and instruments are. Understanding these necessities takes a lot of time. Evaluation, as we said before, has to be continuous and personalized and it has above all, adapted to the school or institution regulations. Evaluation in flipped classroom is in fact a hybrid.

Conclusion

Teacher must become an expert in digital technology and has to create strong trusting relationships not only with the students but mainly with parents. Parents are often afraid their children go on the Internet alone at home. A flipped teacher can explain and provide parents of all the necessary information about in class and at home activities. Moreover Flipped Method increases self-consciousness about knowledge and potential, and change class time setting. Everything becomes new and need new lenses to be read.
Chapter Two - Close your book, switch on your I pad

2.1 Close your book, switch on your I pad

School is a lab where students grow up and create their own character. To do so, school must be a place where students found the instruments they need to develop in learning and behavior. That is why schools need to keep up with the reality students face everyday and with the tools they use to create their own knowledge.

So far the schools have reflected the traditionalist model where space is arranged between the board, the chair and benches. A little big step towards modernity has been done with the use of LIM\textsuperscript{16}, but the technology requires changes more and more dynamic, and over the interactive whiteboard at school, is the need to equip students of other instruments, like computers and tablets. Also it becomes necessary to reorganize the space in class, redrawing "the scheme" action.

Flipped Classroom is concerned by Avanguardie Educative \textsuperscript{17}, as one of the modality to exploit the opportunities offered by ICT and the digital languages to support new ways of teaching, learning and evaluating. Moreover, Flipped Classrooms helps teachers to reorganize the time spent in class making it more productive.

Indire outlines the importance of adopting this new methodology in the following points:

- To allow a radical transformation of activities and expectations "flipping" the two key elements of the educational experience: time in school and time at home.
- To allow the improvement of educational interactions in class, thus optimizing the time at school.
- To optimize the relation teacher / student: more time to devote to those students who need more support
- To develop and strengthen peer learning and independent learning.

In order to realize this scenario Indire outlines the actors and the roles they have:

- **Principal**: promotes and supports the acquisition and / or the production of educational content for students' time at home. Principal supports the argument that a personal device for each student is needed.
- **Teacher**: acts as mentor in the classroom. Creates / selects resources for students at home.
- **Students**: they study the lessons in the afternoon, and then apply over time in school the knowledge acquired at home (through collaborative activities, experiences, debates and workshops).

\textsuperscript{16}INDIRE-Progetto Scuola Digitale: http://www.scuola-digitale.it/lim/ilprogetto/finalita/

\textsuperscript{17} Avanguardie Educative: l'innovazione possibile : http://avanguardieeducative.indire.it
The high quality of the content of the video-resources is essential in the Flipped Classroom. You need a storage of resources available to all students. Without a personal device for each student Flipped Classroom is not viable. So Indire outlines two more essential points:

- **Technology**: Personal device for each student.
- **Financial**: Funds for the purchase of personal device.

### 2.2 From the book to the URL

A tangible change, in this view, is given by the almost total textbook’s absence.

One of the ideas of *Movimento delle Avanguardie Educatived* is dedicated to the issue of textbook and production of digital learning resources. Starting from the work of the lead schools (nine, including comprehensive schools and secondary schools of second degree) which have already started differently experiences in this field, the idea called "Integrazione CDD / Libri di testo" offers an in-depth reflection on how the school approaches to new books and consider the production of supplementary texts as one of the most exciting opportunities offered by digitalization.

Together with the lead schools, Indire is working on drafting a policy paper - entitled "Linee Guida per l’implementazione dell’idea Integrazione CDD / Libri di testo" - which, attempting a definition of the idea itself also contains a number of useful indications for schools that want to work in this direction. The Guidelines are an open document and will be gradually implemented through collaboration between lead schools and all schools that choose to adopt this idea. In addition it contains information on the benefits and problems associated with testing of alternative forms of adoption, a series of reflections on the theme of the book and its possible uses.

The text that follows is based on this document that will soon be available to all schools in the educational movement of Movimento delle Avanguardie Educatived.

The textbook has been and still is a central element of teaching. Many of the school activities (especially for secondary school and second degree) are still focused on the faithful to this tool, which collects and organizes the topics included in the curriculum for the different disciplines of study. Starting from school year 2014-2015, however, the adoption of the textbook is no longer mandatory in our country (Note protocol MIUR n. 2581 of 9 April 2014); Adoptions are optional and, moreover, when made, must necessarily be in digital or mixed. They open up new possibilities for classes: choose to use the volumes produced by the editors, but also open resources (Open Educational Resources) or even use self-produced material.

The Ministry takes care to summarize the whole regulatory framework which schools must follow: it is reaffirmed the role of the teaching (art. 6, paragraph 1 of Law no. 128/2013); it refers to the abolition of the long-standing of adoption (art. 11, Law no. 221/2012) and the five-year-modification of the contents of the texts; we speak of "recommended books", among which are

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18 ibidem
19 Anichini [et alia] *Contenuti Didattici Digitali e Libri di testo: quando il manuale non si porta più a mano* //www.indire.it/content/index.php?action=read&id=1892
also adoptable supplementary digital content separated from the textbook (art. 6, paragraph 2 of Law no. 128/2013), there is mention of reducing the cost cap (Ministerial Decree no. 781/2013); it emphasizes, finally, the possibility for schools to create digital content directly, as a supplement or replacement of the textbook (art. 6, c. 1, Law no. 128/2013). The guidelines that direct the production of supplementary educational content should be made public. They are the result of the work of a commission that brought together at the same table IEA members (Italian Publishers Association), principals, experts and digital textuality political references.

The protocol of April 2014 was announced by the attach to Decree No. 781 of 09.27.2013 containing specific guidance on self digital educational materials and posed a number of important issues. First of all, the relationship between the activity of the teacher, the National Guidelines and the curriculum: the latter is given the task to "offer to teaching a reference path which complies with the requirements of national plans study, thereby helping to ensure - fully respecting the autonomy of teachers - the appropriate level of uniformity and standardization of courses and learning objectives". In the second place, the theme of authorship of the text, connected to the concepts of authority and of quality, seeing in the book a guarantee element in the moment which offers "an authoritative, validated exposure (both from authorial and editorial point of views). " Finally, the question of models of knowledge representation, "the fundamental characteristic of the book form: the ability to organize content in a complex and argumentative authoritative narrative (which therefore does not hide, but rather represents and enhances the presence of the voice of 'author or authors), unified, organic."

Reiterating the fundamental functions of the textbook, the document is inspired by the work of distinguished scholars, including Alain Choppin. The French historian, reconstructing the history of the textbook, defines four key functions:

- the first, "referential", allows you to establish a relationship between the activities of the classes and the national curriculum, including the work of the individual teacher, the student and the themes of the curriculum;
- the second, "instrumental", sees the book as the fundamental tool for the teacher, a useful object to teaching than learning;
- The third, called "ideological and cultural", the book recognizes the role of speaker of values, perspectives, methodological approaches, even beyond the author's intentions;
- the fourth function, "documentary", indicates the text book as a collection of a series of documents, primary sources of knowledge, which, in addition to the interpretive synthesis of a voice authorial, provide to those who study the basis from which to draw for the construction of depth courses. Each of the four functions, which seem to define the object textbook, must now be revised in the light of an ongoing transformation that tends to enhance the diversity of views and the variety of materials to be used in teaching, thanks to the wealth content and information available on the Net today.

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Making his entrance in schools, digitalization calls into question the very idea of a "book" and what it represented in terms of "knowledge representation". The textbook has been configured as a kind of tacit script of "invisible grammar", which performs the task of accustoming the mind that learns in a mode of knowledge organization, deeply affecting the very way of thinking. He represented a model for students, not replaced until today, to secure and organize the information, where the data are considered fundamental for each discipline, according to the procedures and methodologies set by the framework. From the choice of content to be treated, from its "start-up page", are deduced tips and pointers on how to approach the text and therefore the study. In "book form" it is implied a precise idea of study and knowledge organization. The issue is complex and raises new interest when the digital text calls into question a number of habits and evidence established over the centuries and when defining clear new behaviors is difficult.

The new text does not yet offer a defined reference model and new books proposed by the publishers are not currently sufficient to ensure a real innovation and have a substantial effect on the general renewal of teaching. Still seems insufficient, although prompted by years, the reflection on the characteristics of the digital text representing the prerogative to innovate methodologies and contents of learning:

- the closest relationship that exists between reading (understood in the broadest sense of the term) and writing, the ability to work on a given text or even rewrite the content;
- familiarity with new languages, with a legitimation of forms of complex expression, incorporating the alphabetic text, images and video;
- uses potentially collective text, through practices of social reading and sharing of writing, that digital can make usual.

The experience of the schools in our country, which are venturing into the production of new texts, is a very important site for experimentation attempt to find the most appropriate solutions to the needs of students and learning. It is an occasion to reflect on how the potential of the digital can really contribute to the improvement of the practices of the study.

It is a search that has a long history. A story that was born in Italy in the mid sixties with the Cooperative Education (MCE), which is supported and carried out by figures such as Bruno Ciari and Mario Lodi, in the practice of many primary school teachers experimenters. A story that would be very interesting to trace and tell today, when the input of the digital school reopened the question, enabling teachers (and not just primary school) that can easily create educational content on various topics in the curriculum and work towards a homemade texts "rewrite" of knowledge (creating even a substantial confusion between "textbook" and "digital teaching resource").

In this direction are working schools who support the idea "Integrazione CDD / Libri di testo". The analysis of current experience in schools leader let emerge significant differences in the interpretation of the same idea. Some schools have chosen, for some years, not to adopt the textbooks proposed by publishers, but to produce them on their own. Others, however, carry out a job less obvious, but no less useful, where accustomed students do an important activity of "composition" of parts of the text, in the traditional way, without replacing their works to the texts for adoption.
At the end of a comparison with schools it is possible to identify three different modes:\footnote{Anichini, Bucciarelli, Chipa, Morani, Parigi, Taddeo, 2015: Contenuti Didattici Digitali e Libri di testo: quando il manuale non si porta più a mano. http://www.indire.it/content/index.php?action=read&id=1892}:

- Self-production of supplementary digital content: keeping the adoption of textbooks, published by canonical publishing houses, without compromising the production of supplementary digital content in the classroom, regarding particular aspects of the curriculum (disciplinary and interdisciplinary).
- Adoption of digital learning resources produced by teachers and students: the adoption of teachers self-produced digital resources with the help of students, limited to some subjects of the curriculum, with the containment of the expenditure ceiling.
- Adoption of textbooks produced by teachers: the self-production of textbooks, with their adoption, carried out by the teachers of a network of schools, in the logic of autonomy, for the enhancement of the teaching profession and the personalization of learning paths proposed in the texts, according to the specific context in which it operates.

Each line of action has specific characteristics and provides different actions, with a commitment more or less expensive and a different impact on the organization, but welcomes, some common elements:

- a particular way of writing, which involves collaboration between a number of subjects (whether teachers or students) as well as use of procedures, tools and innovative forms of expression. A write \textit{sui generis}, which is not individual and is not spontaneous; which requires a consistent planning stage and requires an effort of important negotiation: a writing social in all respects; writing complex, which is characterized by a new wealth of expression and communication. Approach to this activity which requires a work share of intent, collection and analysis of materials, joint planning, drafting and auditing cross, it means to penetrate behind the curtain of the textbooks to understand the deep structures; means becoming, in the first place, good readers of those texts, in a specular game where the reading is not that the other face of writing. Working on textbooks means for students to take possession of content, tools, methods of study, beyond the logic transmission of the study to learn how to put the text of the questions to which no answer has been given yet.

- A shared idea of “textbook”. What is still considered one of the key instruments of class work and is often experienced as a too tight tie by who sees teaching as a creative act or is looking for answers to their questions. Its limits are linked to the vagueness, the distance from the context of use; sometimes they turn out to be just adequate use of language, specialized and away from the communication of the students or the redundancy of the topics in the “weight” of its pages. The book to which you refer is not a closed and finished product, but a trace of work, a thread that links various topics. It is for teachers and students a reference point, but above all a starting point. It can not be exhaustive, although it contains fundamental knowledge (those provided by the National Guidelines). It is a cloth that is written with or for students and is a way to communicate with them. It is a container of information, processes, languages, relationships, a basic moldable,
expandable, a network, a platform, a writing process, a learning process. Compared to the paper book, it allows a series of interactions and contains expansions consist of digital content.

The nine lead schools involved in the project outlines the following essential premises on which rethink about the way school and teaching are considered.

- believe in the ability to “write” with students some of the knowledge learned in books and make them active in reworking content to overcome the educational broadcasting.
- Working on skills, not only on the acquisition of knowledge.
- Motivate students using a variety of languages and counteract the lack of interest in some subjects.
- Educate to a critical use of the different instruments and different media.
- Promote socialization and the ability to work in groups (encourage the creation of Group-class), manage complex classes (BES students, different levels and learning needs).
- Teach a method for students (as you study, the critical use of the sources, the analysis of the languages offered by the texts: images, video, etc., the responsibility in the writing of the contents / aspects of authorship).
- Motivate the teacher who organizes the content
- Having the ability to update the content, with the discussion of issues related to the area and current events.
- Personalize content with issues related to the needs of deepening class.

2.3 Flipped Classroom: how does it actually work?

On the basis of these premises, the purpose of my research is to observe how Flipped Learning is actually realized in a Middle lower school in Italy. The result of this purpose is the observation in the classes of the Istituto Comprensivo Villanova Mondovi (CU) and in particular Teacher Daniela Tomatis’ English as a second language classes.

Thanks to a competition announcement issued by Cassa di Risparmio di Cuneo\(^{22}\), the Institute of Mondovi, along with Scuola Unificata of Cuneo, Istituto Comprensivo “Maria Isoardo”of Centallo, Istituto Comprensivo “Duccio Galimberti” of Bernezzo, received in 2012 a loan of 82,000 Euros aimed at providing students I pads and other digital tools, providing training to teachers in order to use flipped method.

The goal was to personalize learning paths for students and allow them to proceed at different rates through the use of online resources. From the concept of e-learning to that of mobile learning.

There is a first step of educational training which is followed by a second phase in which the contents are presented to the students in the flipped model. The learners themselves then, at a later stage, create learning objects and publish them online. Here follows the project as presented at the completion announcement.

\(^{22}\)Bando Innovazione Didattica: http://www.fondazionecrc.it/index.php/attivita-istituzionale/bandi/bando-innovazione-didattica
2.3.2 Educational Training

A new educational model requires a training phase to be adopted by the school, in order to increase appreciably the efficiency of the system. These school's proposal is the result of a network of institutions that was preceded by a process of self-education generally carried out by some of the teachers of the design team, through the vision of webinars and videos, the participation in online courses, the reading of articles and blog posts and sharing of collaborative spaces, such as wiki, involving the contribution of teachers worldwide. This refresh process began in 2009 and the experiments carried out are available on the blog http://themachinegoeson.blogspot.com.

The training involves several stages and involves different areas of teaching action:

- a phase of theoretical training on the flipped classroom: teachers involved in the project will know the theoretical model and reflect on the realizable assets in the context of the new methodology, which provides a progressive phasing out of the lecture and a constructivist teaching.
- a phase for technical training (how to use Ipads, both as tools for learning and as production tools to create videos, podcasts and other learning objects to publish online)
- a phase for the deepening of the emotional and artistic languages through the expressive possibilities of the new technologies. Particular attention will be given to the creation of podcasts, the realization of which will be preceded by training activities on various aspects of education in writing (translation of a text born for reading in a text suitable for oral transmission, organization, reflection, revision of written texts; activities of storytelling, analysis of the narrative in poetic language); reading (expressive reading, contamination of words, sounds, auditory stimuli and appeals to visual codes).

2.3.3 Planning

In this phase teachers gather depending on the disciplines and subject areas and identify key areas and/or problems relating to individual curricular content. The teachers set priorities in terms of disciplinary curriculum, related to macro areas:

- Grammar, vocabulary acquisition, comprehension

They identify essential content and gradually introduce flipped classroom, which is used to such topics as "tenses" or "grammar rules", with the use of multimedia resources specially crafted. Teachers work in a transversal and interdisciplinary way, they also proceed to the choice of texts, to music and art, laboratories with the guys; they spread out a work program to be adapted to the podcast, they plan the structuring phases to arrive at the final creation of the same one.

23 an example is the one proposed by www.wikiscuola.it
The primary school teachers, in agreement with the teachers of the class before the secondary school level, work on fundamental issues of competence which are the basic prerequisites for access to the order of the next school.

2.3.4 Implementation

After identifying the specific skills to be developed, the teachers work in the classroom with the innovative system described above and, later, in the verification phase (alternative assessment) let the students use I pads, proceed to the creation of learning objects which will provide a bank of resources to which everyone can access for free. In this way the children will be the creators and users of the same content, increasing their motivation and creativity. The concept of the flipped classroom arrives then to the final stage of the learning according to Bloom's taxonomy, and that is the stage of creation (higher order thinking skills).

Therefore, students will be engaged under the guidance and direction of teachers in making learning objects, that is modular and digital resources that can be used and reused in a context of learning to achieve a unique educational goal.

The innovative idea is to create resources that are self consistent and have no need of book's conceptual references and intertextual typical sequential / narrative representation. Flipped classroom was introduced gradually during the school year 2012/13.

In school year. 2013/14 began the testing in 31 classes and the creation of digital products, collected in the form of podcasts / videos / digital textbooks and published online with a double objectives:

- Create a wider audience for student work
- Provide students with the same opportunity to demonstrate their understanding of the topics

In the following Table 1 there is a list of the applications used in this project.

<table>
<thead>
<tr>
<th>AIM</th>
<th>APP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Making</td>
<td><img src="Vimeo" alt="Video" /></td>
</tr>
<tr>
<td>Audiobooks</td>
<td><img src="Audiobooks" alt="Ibooks" /></td>
</tr>
<tr>
<td>Notes</td>
<td><img src="Evernote" alt="Googledocs" /></td>
</tr>
<tr>
<td>Skills</td>
<td><img src="QUIZLET" alt="Quizlet" /></td>
</tr>
<tr>
<td>iBooks creator</td>
<td><img src="iBooksauthor" alt="IBookcreator" /></td>
</tr>
</tbody>
</table>
2.3.5 Assessment

The ultimate goal of the project is to ensure that students share their learning with peers of their own and other schools, the community and, ultimately, with the whole world, with a view to democratization of culture and free asset reuse. Disclosure will be carried out through:

- Online publication of digital product on a wiki specially crafted;
- Use of schools' websites to share significant experiences;
- Dissemination through the local newspapers of the highlights of the project;
- Collegial sharing of best practices;
- Sharing with neighboring schools with which already joined networking's best practices on issues related to the process of teaching and learning;
- Publications summarizing the achievements of educational specialized magazines, in print or multimedia.

The project aims to implement an innovative type of teaching that allows to involve actively students facilitating the achievement of specific and measurable learning goals.

There are three types of objectives:

- Overall objective (impact)
- Specific objectives (results and the direct / immediate)
- Operational objectives (outputs)

As for the indicators, the same are divided into:

- Output indicators (related activity)
- Result indicators (direct effect of the program)
- Impact indicators (a result of the program on the immediate beneficiaries, adjustable after a certain period of time)

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREATION</td>
<td>Learning Objects created by the students</td>
</tr>
<tr>
<td>RESULT</td>
<td>Performance</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIFIC IMPACT</td>
<td>Proficiency</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>GLOBAL IMPACT</td>
<td>Interest in the subject content, motivation to continue independently, improvement in the ability of self-assessment</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Teachers participated in the training, the planning and implementation of the project. During construction, each of them focused on a specific sector. Following the training, from the early months, they activated crossed study groups between the participating institutions in the project, which in turn planned curriculum, involved other colleagues of the Institute. The students belong to the institutions of the primary and secondary schools’ network.

2.4 An English Language Flipped Classroom

Daniela Tomatis teaches in the Istituto Comprensivo Villanova Mondovì (CU). She is one of the representative teachers, responsible of the project described above. She teaches English as a foreign language in four classes respectively the second year and the third year of the sections A and E.

During the time spent with her classes and her, I observed a variety of activities created by the teacher herself using Flipped Classroom method. Firstly, I will list second year classes’ activities and then third year classes’ activities. Some premises are fundamental: the time to create a lesson with the flipped method may vary, depending on the objectives to be achieved. In the case of “The travel agency”, it was necessary to create the activity on the webquest, select the video, prepare the webquest, think about the evaluation grid and prepare the "proposal form". So it took about six hours of work. Also consider that the "the travel agency" was done in three hours of lesson. I would say, however, that an effective class activity time is always higher than the time spent in class. The class activities, however, are reusable. During the class activities students were all active, because they had to arrive at a final product. It would be impossible to do anything else (such as messages with phones, study for other subjects, sleep, talk more with classmates) just because the cooperative learning eliminates these problems. Furthermore, the teacher never sat in the chair and was constantly and physically next to individual groups, which were structured in such a way that “we sink or swim together". Daniela Tomatis’ sources: the web, her PERSONAL LEARNING NET, that is being connected with teachers around the world with the same idea of "Teaching is sharing". Twitter, Pinterest, Facebook (with various groups), blogs, wikisbooks of methodology, webinars, updating courses.

2.4.2 Creating an Invalsi Test- 2°A of Istituto Comprensivo Villanova Mondovi (CU)

In 2°A Teacher Tomatis wanted to make the students create an Invalsi Test. The day before she sent them on their virtual classroom on Edmodo the document you can see below. She flipped the moment of the traditional explanation so that student could prepare themselves before going to class. This may be considered, in Freddi’s terms, “fase di Globalità”.

Teacher Tomatis provides her students of every necessary tool to achieve their aims starting from the Performance Assessment up to the Test Creation describing every parameter as you can see in the scheme above.

In class the time (1 h) was organized as follows:
- Before starting the activity, Teacher asks the students whether they know what an Invalsi test is. This simple question helps teacher to understand whether students have already had a look at their virtual archive in their virtual classroom or not.

- Teacher gives the students a sheet of paper reporting an example of a traditional Invalsi Test

- Teacher asks students what they think the most important grammar topics are meant to be on an Invalsi Test

- Students say: Past Simple, Present Simple, Pronouns, Saxon Genitive, Frequency adverbs (every time they suggest a topic Teacher asks them to approve the topic raising their hands, so that the decisions are made actually in accordance to everybody)

- Teacher described again what students have to do at home: creating a multiple choice test with the topic they chose in class

- Teacher shows the student what are the parameters she follows to evaluate them

- Teacher reminds students Bloom’s taxonomy in order to show them that Flipped Method also flips the order in Bloom’s Taxonomy. Their goal is to create Knowledge inverting the Higher Order Thinking Skills in the learning process.

- Students firstly work individually at home creating a multiple choice test, then in class, gathered in small groups of two or three, finally have to prepare the test, putting it on line with Testmoz.it 24 and share it with the rest of the class (this will be done in the further two hours of lesson and at home).

FLIPPED CLASSROOM – CONTENT CREATION

AUTHENTIC TASK: “Invalsi-like tests creation”

In general, an authentic task is one which:
• is purposeful and engaging
• models how people solve real problems in work and/or communities
• puts knowledge to work
• potentially demonstrates what students know and can do
• supports multiple representations and solution strategies
• offers opportunities for meaningful learning and higher order cognitive thinking
• results in some product, presentation or outcome as a result of the deliberations of the group and/or individual.

Performance Assessment: GRASPS
When constructing performance assessment tasks, it helps to use the acronym GRASPS:
G Real-world Goal
R Real-world Role
A Real-world Audience
S Real-world Situation

24 Testmoz is a simple and effective free tool for creating and sharing tests, quizzes, tests online.
This authentic task is designed by Teacher Tomatis, and empowers students, making them masters of their knowledge. They created a video tutorial that explains the other English-speaking students the rules of grammar. Each group created a video starting from the simple grammar rule, and developing it according to its own imagination.
Each group wrote the rule on a sheet of paper, prepared a schedule and has registered with the iPad the video tutorial using the application Educreation25.

Students decided to talk about:

1. **Frequency Adverbs**: they used the acronym DINOSAURS to remind them:

   Di Never Often Sometimes Always Usually Rarely Seldom

25 Educreations is a unique interactive whiteboard and screencasting tool that's simple, powerful, and fun to use. Annotate, animate, and narrate nearly any type of content as you explain any concept. Teachers can create short instructional videos and share them instantly with students, or ask students to show what they know and help friends learn something new.
2. **Word order in the interrogative form**: they used the QUASI ASI system:

QU- W question  Auxiliar  Subject  Infinite form of the verb

Auxiliar  Subject  Infinite  form of the verb

3. **The three most horrible mistakes**: the use of “to have” to express the age, forgetting the “s” for the plural, the difference between “his”, “he’s”, “‘s” and “is”.
FLIPPED CLASSROOM – Grammar Tutorials

AUTHENTIC TASK: “A video tutorial”

In general, an authentic task is one which:
• is purposeful and engaging
• models how people solve real problems in work and/or communities
• puts knowledge to work
• potentially demonstrates what students know and can do
• supports multiple representations and solution strategies
• offers opportunities for meaningful learning and higher order cognitive thinking
• results in some product, presentation or outcome as a result of the deliberations of the group and/or individual.

Performance Assessment: GRASPS
When constructing performance assessment tasks, it helps to use the acronym GRASPS:
G Real-world Goal
R Real-world Role
A Real-world Audience
S Real-world Situation
P Real-world Products or Performances
S Standards

FROM THEORY TO PRACTICE

<table>
<thead>
<tr>
<th>Performance assessment ( theory )</th>
<th>Video Tutorial( class activity – practice )</th>
</tr>
</thead>
</table>
| **GOAL**
Provide a statement of the task.
Establish the goal, problem, challenge, or obstacle in the task | You have to create a video explaining a grammar topics and/or a memory trick |
| **ROLE**
Define the role of the students in the task.
State the job of the students for the task. | You are a teacher and you have to explain things in a memorable way |
| **AUDIENCE**
Identify the target audience within the context of the scenario. | The online visitors of the school platform, in particular students who are struggling to learn grammar |
| **SITUATION**
Set the context of the scenario.
Explain the situation. | A lot of students find it hard to remember the rules of English grammar. You have to help them. |
| **PRODUCT**
Clarify what the students will create and why they will create it. | A video tutorial, no longer than 2 minutes
Apps : Imovie, Educreations, Screenchomp, Puppet Edu |
| **STANDARDS and CRITERIA [INDICATORS]**
Provide students with a clear picture of success
Identify specific standards for success.
Issue rubrics to the students or develop them with the students. | Ss are given:  
• a detailed rubric with grading criteria |

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correctness</td>
<td>6</td>
</tr>
<tr>
<td>Clarity</td>
<td>2</td>
</tr>
<tr>
<td>Originality</td>
<td>1</td>
</tr>
<tr>
<td>Voice/Pronunciation</td>
<td>1</td>
</tr>
</tbody>
</table>
The activities created for second year classes focus mainly on grammar since students still have to build the basis and reinforce their technical knowledge. As we can see in the following activities, Teacher Tomatis creates for third year classes another kind of activity which is more focused on proficiency and usage of language.

2.4.4 Flipped Classroom/Clil Geography Lesson- 3°A _Istituto Comprensivo Villanova Mondovi (CU).

As soon as student achieve a good level of English, Flipped Classroom becomes more and more fun even for the teacher. It happens that the High Order Thinking Skills described by Bloom in his Taxonomy model really emerge and represent the beginning of the learning process.
In Middle School Third Classes, Flipped Classroom can represent an opportunity to make the student face their ability at real life problem solving, using activities that implygamification or real life problem solving.
In the 3°A Teacher Tomatis uses Clil to teach them geography, in particular, in this activity she focuses on Canada.

In the following scheme we can see how she organizes the time in class:

<table>
<thead>
<tr>
<th>FLIPPED CLASSROOM – CLIL LESSON – GEOGRAPHY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level</strong></td>
</tr>
</tbody>
</table>
| **Aim**   | • Geography/Travel related vocabulary  
|           | • Information about Canada/London 
|           | • Frame for speaking about a country 
|           | • Authentic task : The travel Agency |
| **Tools** | • Youtube videos  
|           | • Quizlet e-flashcards 
|           | • Google  
|           | • Text with gaps to fill in 
|           | • Cardboard Pictures 
|           | • Ipad |
| **Methodology** | • Group work cooperative learning in class  
|                 | • Individual work at home |
| **Time**      | 3 lessons |

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LESSON 1

At home
Students watch video with geography words following this link: https://www.youtube.com/watch?v=3nm0NotMNfl&feature=youtu.be

Students practice pronunciation and spelling using e-flashcards http://quizlet.com/76655730/geography-vocabulary-words-flash-cards/

Students update their lexical notebook and study the words.
In class

Warm up to check knowledge of related vocabulary
  • Pass the bomb (with geography questions)
  • Last one standing

Students are divided into groups of 4 and they access the online resources using I pads (Teacher sends links via mail). Students are also given an envelope with pictures. They have to complete the text with the missing information. While working, Teacher offers them maple syrup. Some music is being played (from Canadian singers)

Online resources

https://www.youtube.com/watch?v=dthNwfVBK9E&feature=youtu.be
where they find a PPP about Canada with a final Q&A section.

Students exchange texts and together give a general feedback. Teacher grades their work and writes marks on cardboard grid hung in class.

Homework
Teacher uploads correct text on Edmodo. Students make a mindmap/infographic and study the text. They write 5 more things they would like to know about Canada.
LESSON 2

In class

Class feedback and revision with Kahoot
https://play.kahoot.it/#/k/955cd341-c2e5-4d7a-922e-47335583ac07

Students exchange their maps and they talk to each other about Canada
(inner/outer circle speaking activity)

It was really interesting to notice how while the students where playing Kahoot! to challenge each other within their own classroom, they reckon that other students within the school system, but belonging to other classes, were playing at the same time with them. It means that when a group of teacher that uses Flipped Method and share their own content on a common platform, their students as well join the contents and improve their knowledge, together. They play while they are learning, or viceversa.
2.4.5 Flipped Classroom: Authentic Task - The Travel Agency - 3ºE Istituto Comprensivo Villanova Mondovi (CU)

In this activity Teacher Tomatis asks her student to become real travel agents. In order to make this activity as authentic as possible I offered myself as a real client, providing them in advance of my personal information and my requests, including the budget.

In this activity real life problem solving is really trained by the students, who, thanks to the aid of their teacher that becomes a real tutor, have the access to real booking websites, hotels, B&B, museum and every other tools they would have to face in their ordinary life. Moreover, at the end of this research they had to prepare a real oral presentation in which they have to convince me to accept their proposal. Teacher Tomatis asked me to grade them.

I decided to add a grading criteria to the assessment:

| One star | Accuracy (research, attention to client’s needs) |
| Two Stars | Proficiency and charisma (exposition) |

I used a video in order to give the students a more complete feedback to their works and also to motivate precisely each grade I assessed.

The result can be seen in a video I made with iMovie and published on Youtube: [https://www.youtube.com/watch?v=wfW_KihITyM](https://www.youtube.com/watch?v=wfW_KihITyM)

THE TRAVEL AGENCY

Introduction

You have just started a travel agency.

Miss B. Pretorino is your first client and she wants you to help her plan a trip to London.

Task

Miss Pretorino is 27 years old and she’s never been to London.

She can speak English, she is a teacher of Italian language for foreigners and a radio speaker. Radio is her passion as well as photography, cooking cakes, listening to funky music and skating.

She lives in Venice and she likes travelling.

In the past she lived in different places: Moscow, Barcelona and Rome. She loves learning new things.
She wants to leave on May, 10th from Venice and she has to be back in Venice on May, 17th.
She always has her I pad with her so she needs a room in a hotel with WIFI.
She has a budget of 2000 Euros.

Process

YOU MUST:
- find a name for your travel agency
- find a flight for Miss Pretorino
- find an accommodation in London
- Suggest 5 attractions/places to visit and explain why you think she would like to see them
- Calculate the total cost of the trip (flight + hotel + attractions )

BOOKING THE FLIGHT [1]
WHERE TO SLEEP [2]
WHAT TO DO [3]
TOP 10 ATTRACTIONS [4]
MORE TOP 10 ATTRACTIONS [5]
INFORMATION ABOUT LONDON [6]

Evaluation

GRADING CRITERIA - EVALUATION RUBRIC

<table>
<thead>
<tr>
<th>TASKS</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAVEL AGENCY NAME</td>
<td>1</td>
</tr>
<tr>
<td>Correctness, response to client's needs</td>
<td>2</td>
</tr>
</tbody>
</table>

Originality
ACCOMODATION DETAILS
response to client's needs

SUGGESTIONS ON WHAT TO SEE
clarity, completeness, content

COST DETAILS
accuracy, response to client's needs

Conclusion
You will get an e-mail from Miss Pretorino giving feedback on your trip plan.
She will choose the best offer she receives.

Source URL: http://createwebquest.com/webquest/travel-agency-0

Links:
5. [5] https://www.youtube.com/watch?v=L0r0VTos_wU
7. [7] https://www.youtube.com/watch?v=0EeUiZ5j5aM

It is remarkable how the best student in this activity was a student who actually risks to be dismissed in all the other subjects.
I found necessary to describe what happened during this activity.

A student asked the teacher how she could convert Euros to Pounds. Teacher Tomatis spontaneous' answer was to give her a task and not a solution, suggesting her to ask her math's teacher to explain how to do during the following lesson.
Since this request had been asked to everybody, and loudly, everybody could listen to it and try to find a solution.
The solution came from a boy, Leonardo, the one who risks to be dismissed and that is not
usually interested in activities or learning. After few minutes he suggested everyone to go on the web and look at an online converter.

Real life problem solving and a pedagogy based on that reaffirm the effectiveness of communicative approach.

Here follows the papers each group prepared in class.

• **Group One:** Magic World Travel Agency by Lucrezia, Fabrizio and Ilyass.  
  **Speaker:** Lucrezia.  
  Lucrezia is dislexyc; she decided to represent the group and talk to me to offer me their proposal. They also prepared for me a little brochure showing the hotel they choose and the attractions they offered me.
So this is the assessment I gave them:

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Travel Agency Name</strong></td>
<td>1/1</td>
</tr>
<tr>
<td>Flight Details</td>
<td>2/2</td>
</tr>
<tr>
<td>Accommodation</td>
<td>2/2 **</td>
</tr>
<tr>
<td>Suggestions</td>
<td>3/3</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>2/2</td>
</tr>
</tbody>
</table>

Their proposal is complete and accurate, moreover they really identified themselves with the role of a travel agent, printing me out a brochure, as usually happen in a real travel agency. For this reason I decided to give them two more stars.
• **Group Two:** Dream Travel by Noemi, Miriam and Andrea.
  **Speaker:** Noemi
So this is the assessment I gave them:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Travel Agency Name</strong></td>
<td>1/1</td>
</tr>
<tr>
<td><strong>Flight Details</strong></td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Accommodation</strong></td>
<td>2/2 **</td>
</tr>
<tr>
<td><strong>Suggestions</strong></td>
<td>2/3</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>2/2</td>
</tr>
</tbody>
</table>

I motivate the ½ for flight details based on my necessity to leave earlier, and I gave them two ore stars for the accommodation since they choose a Hotel right in the centre of London.
• **Group Three:** Dreams Tour by Roberta and Francesco  
**Speaker:** Roberta.  
Roberta is usually really shy, but in this presentation she demonstrates her personality in the exposure. She is precise, professional and accurate in the description. Moreover she demonstrates me to be at ease, making some funny jokes about Madame Tussauds Museum.
So this is the assessment I gave them:

<table>
<thead>
<tr>
<th>Travel Agency Name</th>
<th>1/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Details</td>
<td>2/2</td>
</tr>
<tr>
<td>Accomodation</td>
<td>2/2</td>
</tr>
<tr>
<td>Suggestions</td>
<td>3/3 *</td>
</tr>
<tr>
<td>Total Cost</td>
<td>2/2 *</td>
</tr>
</tbody>
</table>

Roberta’s exposition was extremely clear so I decided to gave her group one more star for her proficiency in the description of the suggestions. In addition they found a really cheap solution so they receive one more star.
• **Group Four:** Around The World by Annagiulia, Andrea, Giovanni and Sara.

• **Speaker:** Annagiulia.

They were really original in the choice of the accommodation. They were really accurate in asking me my preferences and also looked at me as a real client.

---

**Travel Agency Name:** Around The World

**Email:** annafrankii@ecloud.com

**Trip to London - Miss Pretorino**

**Flight Details**

**Airline company:** Monarch Airlines

**Departure**

Place - Date - Time  
VCE Venice - 10th May - 20:40

**Arrival**

Place - Date - Time  
LGW London - 10th May - 21:00

**Departure**

Place - Date - Time  
LGW London - 11th May - 16:35

**Arrival**

Place - Date - Time  
VCE Venice - 11th May - 19:50

**Accommodation**

Hotel: The Peloton Inn (23-25 Peloton Road, Greenwich)

It is 10 minute walk from Maze Hill Tube and DLR train stations and easy links to both the City and central London.

Free Wi-Fi provided.

Cleanliness: 5/6, Quality: 8/10
So this is the assessment I gave them:

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Agency Name</td>
<td>1/1</td>
</tr>
<tr>
<td>Flight Details</td>
<td>1/2</td>
</tr>
<tr>
<td>Accommodation</td>
<td>2/2 *</td>
</tr>
<tr>
<td>Suggestions</td>
<td>3/3</td>
</tr>
<tr>
<td>Total Cost</td>
<td>2/2</td>
</tr>
</tbody>
</table>

I reward them because they choose a home-stay instead of a hotel taking in account that I still am a student and that I could have trained my English during my holidays.

- **Group Five**: The Faces of The World by Leonardo, Anita and Francesca.
  
  **Speaker**: Leonardo and Francesca
Leonardo is a student who risks to be dismissed this year. Despite all the expectations he demonstrates to have a conscious use of the language.
So this is the assessment I gave them:

<table>
<thead>
<tr>
<th>Travel Agency Name</th>
<th>1/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Details</td>
<td>1/2</td>
</tr>
<tr>
<td>Accommodation</td>
<td>2/2 *</td>
</tr>
<tr>
<td>Suggestions</td>
<td>3/3</td>
</tr>
<tr>
<td>Total Cost</td>
<td>2/2</td>
</tr>
</tbody>
</table>

The accommodation they choose is near Hyde Park. Their choice was accurate because it takes in account my passion for skating. So I decided to give them one more star for the accuracy.
In the video published on Youtube I provide them also a final ranking: each group stands out for something, in fact the ranking makes them clear that there is a minimum variance between the scores.

I considered important to give another reward to those students who excelled in speaking skills. So I rewarded the three best travel agency speaker in an additional ranking:

1° Annagiulia
2° Leonardo
3° Noemi

It is remarkable how this authentic task activity let emerge the special talent of everybody, finally putting on the same stage Annagiulia and Noemi, usually model students, and Leonardo who represents exactly the opposite kind of student.

2.5 Questionnaires

At the end of my observation at school I sent the students of third year, a questionnaire sharing the link on their virtual classes.

I produced the questionnaire on www.surveymonkey.com, a web site that freely provides a variety of questionnaire schemes.

In the questionnaire I asked students their feelings about flipped learning, trying to understand whether they had actually understood the difference between traditional and flipped model.

Together with Teacher Tomatis, I decided to give the students a questionnaire in Italian language. We decided to do so in order not to stress them and to put them in the condition to understand completely the assignment.

Q1- In the first question I ask the students how do they about using the flipped model, assigning from 1-very little point, up to 5-super points, to each adjective, respectively: responsible, happy, unsecure, anxious, creative.

The questionnaire shows that about fifty students, 44.9% feel very responsible for their own learning and the 30,61% feel very much responsible for their own learning, with a gap of negligible low percentages.

The majority are also those who feel really, so much and super happy, recording the percentage of 22,45%, 28,57% and 38,78%. In practice, of forty-nine student who responded to the questionnaire, 44 students feel happy to study with this method.

Another positive outcome is because of the percentage about the adjective insecure, since only 4 of 50 students have expressed very or super insecure.

The same goes for the adjective anxious, where only 14%, or 7 out of 50 students feel anxious with the flipped method.

Many of them, i.e. 94%, feels creative with the flipped method.
Studiare con il metodo "Flipped" mi fa sentire... - scegli un voto da 1 (pochissimo) a 5 (super)

Answered: 50  Skipped: 0

Responsible

Felicita

Inciso

Annesso

Creativo

0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%

<table>
<thead>
<tr>
<th></th>
<th>1 (pochissimo)</th>
<th>2 (poco)</th>
<th>3 (bene)</th>
<th>4 (soddisfacente)</th>
<th>5 (super)</th>
<th>Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible</td>
<td>2.00%</td>
<td>10.00%</td>
<td>48.00%</td>
<td>28.61%</td>
<td>13.39%</td>
<td>49</td>
</tr>
<tr>
<td>Felice</td>
<td>4.80%</td>
<td>6.13%</td>
<td>22.88%</td>
<td>28.31%</td>
<td>26.76%</td>
<td>49</td>
</tr>
<tr>
<td>Inciso</td>
<td>52.00%</td>
<td>42.00%</td>
<td>8.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>50</td>
</tr>
<tr>
<td>Annesso</td>
<td>54.00%</td>
<td>22.00%</td>
<td>8.00%</td>
<td>4.80%</td>
<td>2.00%</td>
<td>50</td>
</tr>
<tr>
<td>Creativo</td>
<td>2.00%</td>
<td>0.00%</td>
<td>26.00%</td>
<td>26.00%</td>
<td>44.00%</td>
<td>50</td>
</tr>
</tbody>
</table>
Q2- In the second question I asked students about their home-works with the flipped method. They could choose two alternatives.

- I get more tired but I am satisfied with my work
- I am happier to study
- I’d rather study on the textbook
- I am relaxed
- I get too tired and I do not like it

About fifty students, 82 feel relaxed and are happy to study with this method. Only two students feel tired, but are satisfied with their work. 12% would prefer the textbook and only 1 in 50 say that he/she does not like this method because it is too demanding.

Q3- In the third question, using the same range from 1very little, up to 5 super, I asked students how much do they like:

- using the I pad to study in the class?
- working in group with companions?
- creating video tutorial and presentations?

*Using the I Pad in class* proves to be very popular with student, who find themselves using an object they use at home for leisure and fun. The percentage of 68% of student considers it Super, the 22% of those believe it is very beautiful, the 8% considers it beautiful. It is also significant that no one believes it is very little good.

*Working in groups with their peers* is another goal achieved by cooperative learning, and as my research shows, a key objective of the flipped method. In fact about 49 students, 45 have said *Super* about working in group, while only 8.16% of them, then 4 students, prefers individual work.

Another key element of the flipped method is *the production of teaching materials*, both on the part of the teacher and the students. As we have seen in the case of children of 2 ° E. 53,06% considers it *Super* nice, the 20,41% considers it very beautiful, 16.33% as beautiful. Only 5 of 49 people believe that create material with presentations, tests and tutorial is not beautiful and motivating.
Q2 Quando studio A CASA con la Flipped Classroom... (puoi scegliere al max due risposte)

Answered: 50 Skipped: 0

- mi stanco di più ma sono...
- sono più felice di...
- preferirei studiare sul...
- sono rilassato
- mi stanco troppo e non...

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Answer Choices – Responses

- mi stanco di più ma sono soddisfatto del mio lavoro 4.00% 2
- sono più felice di studiare 68.00% 34
- preferirei studiare sul libro di testo 12.00% 6
- sono rilassato 14.00% 7
- mi stanco troppo e non mi piace 2.00% 1

Total 50

Da 1( pochissimo) a 5 (super), quanto ti piace...

Answered: 50 Skipped: 0

usare l'i-pad per studiare...

lavorare in gruppo con l...

creare video tutorial...

0 1 2 3 4 5 6 7 8 9 10

<table>
<thead>
<tr>
<th></th>
<th>1 (pochissimo)</th>
<th>2 (poco)</th>
<th>3 (buono)</th>
<th>4 (buono)</th>
<th>5 (super)</th>
<th>Total</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>usare l'i-pad per studiare in classe?</td>
<td>8.00%</td>
<td>2.00%</td>
<td>9.00%</td>
<td>22.00%</td>
<td>68.00%</td>
<td>34</td>
<td>4.58</td>
</tr>
<tr>
<td>lavorare in gruppo con i tuoi compagni?</td>
<td>2.04%</td>
<td>1.12%</td>
<td>32.45%</td>
<td>24.49%</td>
<td>44.90%</td>
<td>22</td>
<td>4.04</td>
</tr>
<tr>
<td>creare video tutorial, presentazioni, test?</td>
<td>4.08%</td>
<td>6.12%</td>
<td>16.33%</td>
<td>20.44%</td>
<td>52.96%</td>
<td>26</td>
<td>4.12</td>
</tr>
</tbody>
</table>
Q4- **In the fourth question I asked the students if they like speaking English during the time spent in class.**

The answer choices were:

- Yes, I like it because I train myself and improve
- No, I don’t like it because I am afraid to commit mistakes
- Yes I like it, because I am not afraid to commit mistakes
- No I don’t like because I am afraid of my peers’ judge

The statistic is divided almost in two parts in fact 38 out of 50 students respond saying that they love to speak English, because they train and improve, while another large percentage responds who does not like to speak English because they fear making mistakes. Only one student in 50 is afraid of the judgment of his classmates.

Q5- **In the fifth question I asked the students the reason why they like or not working in group. The answer choice were:**

- I like it because I enjoy
- I do not like it because I get bored
- I like it because together we have more ideas
- I do not care

Almost all of the students who answered the question admits to love working in groups. The 65.31% of them likes to work in a group because believes that in the group there are more ideas while 26.53% think it is funny. The 6.12%, i.e. 3 of 49 students get bored working in team, while only one of them thinks it not necessary.
Q4

Ti piace parlare in inglese durante la lezione?

Answered: 50  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Si, mi piace allenarmi e...</td>
<td>76.00% 36</td>
</tr>
<tr>
<td>- No, perché ho paura di...</td>
<td>22.00% 11</td>
</tr>
<tr>
<td>- Si, non ho paura di sbagliare</td>
<td>0.00% 0</td>
</tr>
<tr>
<td>- No, perché mi sento giudicato dai miei compagni</td>
<td>2.00% 1</td>
</tr>
<tr>
<td>Total</td>
<td>100% 50</td>
</tr>
</tbody>
</table>

Q5

Lavorare in classe in gruppo con i miei compagni...

Answered: 49  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- mi piace perché mi...</td>
<td>26.53% 13</td>
</tr>
<tr>
<td>- non mi piace perché mi annoia</td>
<td>6.12% 3</td>
</tr>
<tr>
<td>- mi piace perché insieme abbiamo più idee</td>
<td>63.31% 32</td>
</tr>
<tr>
<td>- non mi importa</td>
<td>2.04% 1</td>
</tr>
<tr>
<td>Total</td>
<td>100% 49</td>
</tr>
</tbody>
</table>
Q6- in the sixth question I asked the students if they have a computer at home and the Internet connection. Almost everyone, the 92% has got a computer and an Internet connection at home. Only one answered not to have a computer and an Internet connection.

I asked this question to the students because flipped method requires an on line working at home, which is necessary to achieve the goals in class and to work with the other classmates in class. Since the reality of Italian classes is changing rapidly, it will be easy to find students in different economic and social condition.

Taking in account this aspects means also that school has to provide those students who doesn’t have a computer at home, the possibility to stay at school in the afternoon. Otherwise, teacher together with parents and the rest of the class, creates a special social web, thanks to which that student who cannot study alone will find easy to ask some other mates to study together.

In 3°E happened that someone could not print out the material for C.L.I.L geography class. Cooperative learning develops also cooperative feelings between the students: in fact another student proposed herself to print him out the material for the following activity.

Q7- in the seventh question I asked students to indicate from 1(minimum) to 5 (super), the importance of:

- Their teacher speaking English
- Their teacher speaking Italian
- Them to speak English
- Them to speak Italian

They 30%of them consider super important to have their teacher speaking English, and the 50% of them consider it so much important. The rest of the students is divided into the 18% who consider it important and only one student thinks it is not very important.

The 62% of the student consider little important to have their teacher speaking their mother tongue, while the 10% consider it not important at all and the 18% consider it very important. Only 9 students out of 50 think that is so much and super important to have their teacher speak in Italian during the lesson.

None of them thinks that speaking English in class is useless, while they are dividend into the 24% who thinks that it is very important, the 42% who thinks that it is so much important and the 32% that it is super important.
Speaking Italian is not so important for them, standing on the statistics: the 58% thinks it is not very important, the 18% thinks it not important at all. The 14% of them thinks it is very important and the 10% of them is divided into 4 students that consider it so much important, while just one thinks that is super important.

### Q6

**A casa hai un computer e la connessione internet per studiare?**

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si, ho il computer ad internet</td>
<td>93.08%</td>
</tr>
<tr>
<td>Si, ho il computer ma non ho internet</td>
<td>0.03%</td>
</tr>
<tr>
<td>No, non ho computer e nemmeno internet</td>
<td>2.03%</td>
</tr>
<tr>
<td>Si, ho internet ma la mia connessione è molto lenta</td>
<td>6.05%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

### Q7

**Da 1 (pochissimo) a 5 (super) quanto è importante che...**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
<th>Weighted Average</th>
</tr>
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<tbody>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.88%</td>
<td>62.88%</td>
<td>18.00%</td>
<td>6.66%</td>
<td>2.03%</td>
<td>50</td>
<td>2.34</td>
</tr>
<tr>
<td>0.89%</td>
<td>2.98%</td>
<td>26.06%</td>
<td>62.09%</td>
<td>32.09%</td>
<td>50</td>
<td>4.04</td>
</tr>
<tr>
<td>0.89%</td>
<td>2.98%</td>
<td>12.05%</td>
<td>62.09%</td>
<td>32.09%</td>
<td>50</td>
<td>2.34</td>
</tr>
<tr>
<td>10.88%</td>
<td>56.02%</td>
<td>14.00%</td>
<td>6.66%</td>
<td>2.03%</td>
<td>50</td>
<td>2.18</td>
</tr>
</tbody>
</table>
Q8 - In the eighth question I asked students to assess their improvement in writing and speaking skills. They had to indicate their development from 1 (minimum) to 5 (super).

Writing skills have been improved a lot by the 44% of the students, while the 24% of them consider their writing skills improved so much and a 16% thinks their level super improved and another 16% thinks that their level has very little improved.

Speaking skills have been improved a lot by the 36,73% of the students, so much by 32,65% and super improved by 24,49%. Only one student declared he has not improved at all and two students think they have improved a little.
Conclusion

As evidenced by the initiatives proposed by Indire, the projects financed by banks but also by the initiatives that start from individual teachers, digital technology is an essential element of support to cooperative learning. Networks of students and teachers intertwine at various points: the formation of students and teachers is continuous and on the same level; creating teaching materials become the job of teachers and student; assessment and awareness of their own learning encompasses both spheres; the school becomes real life and goes beyond the reality of the program and the textbook.


Chapter Three- Digital Pedagogy

3.1 Digital pedagogy: how does a teacher change in the digital era?

In the previous chapters we described the new dimension created in the classroom setting through the use of new technologies in teaching. Use ICT is synonymous with educational innovation, but at the same time reflects the fact that the one-way pedagogy applied until the '70s and still very much adopted in the Italian school system, now finds it difficult to resist. It requires a change in the school as fast as that of the world outside of school. This is because the school must be a place where the citizens of the future grow up, but this also happens because teachers recognize that their function is now changed. Imparting their knowledge is no longer their main function. In fact, the figure of the teacher is to be understood more and more as a tutorial figure. Teacher’s role is to accompany the student in the development of his critical thinking, in problem-solving skills in real life.

We therefore speak of the ability of citizens to create their own contemporary knowledge through a multitude of channels, which go beyond the use of the conventional ones. Each of them has at least one virtual alter ego: all that before was only on paper, is now also on the Internet, then the knowledge expands its facilities and must find a way to disseminate information globally even creating value within the educational system.

Firstly, the teacher should be a digital literate, a figure that begins to take shape in the 70s in the US, when Paul Zurkowski, President of US Information Industries Association at the US National Commission On Libraries and Information Science, denotes the need to quickly find a way to disseminate information globally, as the vision and organization of knowledge, education, the economy, and the work would be changed.

The scientific debate is articulated through two approaches: the first sees the Digital Literacy as a circumscribed subject area, like the ability to read and write, and count. The latter approach means the Digital Literacy as a framework within which to rethink education and training. Several questions arise from both interpretations: in fact in both cases there is the problem of how to create, impart knowledge and create learning processes that allow individuals to be active subjects of knowledge.

What does this mean in the context of education? The multi-literacy base for a conscious and active citizenship becomes a multi-competence shaping the next generation of Digital Native in the XXI century.

Based on the research conducted by the neuroscience it seems that digital environments require brain unprecedented dialogue between texts and images, including processes of analysis and synthesis and categories of space and time.

The transformations are similar to the transition from oral to written culture, transformations that can change and reconfigure the specializations of our brains.

This gives rise to the criticism of the traditional model of education too focused on just one language, predominantly textual, that is based on the book.

The school is no longer the privileged place of production and transmission of knowledge, based on a one-way education.
In a so complex society easily emerge hybrids, including the multilingualism and multiculturalism, much more complex realities of a foreign language, and where it is difficult to distinguish the hierarchy of knowledge because of the multiplicity of information, the greater importance of cultural and linguistic diversity and the influence of digital environment in the lives of young people. This reality requires a rethinking of education, of the places where education is taught and new learning environments.

As reported above, the digital competence is seen as a part of the scientific community as a capacity comparable to the ability to read and write. At school then, will no longer be taught only the four basic skills, but will be added a new socio-cultural practice, as it is defined in the field of sociolinguistics, the social sciences, psychology and education. In the approach called *Sociocultural practice*, literacy varies from one society to another. It is internal to the epistemological principles of a given society.

The cultural dimension of literacy embraces attitudes, values, social conventions. Being competent means knowing how to behave in every situation. Literacy is achieved only through social practices of various kinds and therefore necessarily takes different forms depending on the cultural contexts. However, the relationship between text and reader is essential for the growth of literacy as is the contest in which the encounter between text and reader (Buckingham, 2007). It is essential to take account of those who provide information and controls and also the means by which it is generated and distributed.

The skills associated with this approach are:

- knowing how to think critically
- be able to learn along the arc of the whole life
- manage interaction with digital environments

Another approach describes the Digital Literacy as Intellectual Empowerment, namely enrichment of one’s ability to think. The advent of writing, such as the press, have always generated a new intellectual emancipation.

The same is happening today with the digital technologies that are revolutionizing the way we think and create knowledge. Today, literacy is linked to the issue of the acquisition of knowledge. Being literate means constantly build their knowledge, as it is learning a chance of constant adaptation to an ever-changing social environment.

This last approach opens the way to a further perspective: literacy becomes the art of research to think and learn. It provides the key to understanding the mechanisms of rapid change but also the more subtle changes as those that occurred between the oral culture and the written.

How do digital natives think, how do they create knowledge living in the process of the digital revolution?
3.2 A pedagogy of multi-literacy: designing social future

The New London Group in 1994, a group of ten experts in different fields such as pedagogy, linguistic, sociology, media experts, educational policy, curriculum experts, debated about a poster on literacy pedagogy named "A Pedagogy of multi-literacy: designing social futures". A manifesto that wants to reflect on the consequences in the future, with a critical introduction and a theoretical vision of the social context and the learning mode, due to the changes and exposure of information through various communication channels, giving particular attention to the Internet.

This group was to create a framework for educators around the world in order to trigger investigations useful to the testing of a new curriculum framework. They left by the critics of the term literacy itself, creating thus a pedagogy of literacy: multiple modes of representation of reality and the different languages of the company, i.e. the media, print, Internet, multilingualism, multiculturalism. Elements that together are much larger of the only language on which our school and the very concept of education.

While the text is a semantic architecture of related languages, a pedagogy of multi-literacy changes the nature of the problem of learning and teaching.

This manifesto outlines six objects related to the production of meanings:

1-linguistic
2-space
3-aural
4-gestural
5-spatial
6-modal

that in class become:

- **Situated practice**: create meaning in life, in the public sphere in the workplace;
- **Overt instruction**: open training, then the use of a meta language to explain the project
- **Critical framing**: framing critic who plays the social context and the purpose of the projects of significance
- **Transformed practice**: the student become producers of their social project.

The multi-literate is not a multilingual (Margiotta, 1998), but is a mapping processor, i.e. a computer mind. The multilingual uses many languages. The multi-literate invents, discovers, organizes, has a cross thought. It is capable of using many languages, that is able to continually create new cognitive processes, new mental maps and strategies for problem solving.

3.2.1. Education and Information Literacy

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26 Harvard Educational Review, vol. 66 N°1
In the 90's comes the need of a theoretical framework for educational and curricular models, appropriate for the development of skills and to govern the information. This requirement will result in the 2000s with a rethinking of the entire school system.

In the analysis of Maclure, in education information literacy should be divided into four areas of expertise:

1. media
2. network
3. computer
4. traditional literacy

so the student can listen in learning environments of information problem solving

The information Literates learn to learn, because they know how knowledge is organized, know how to find information and how to use them and they do so that others may take example. It is essential to enter the information literacies to school (Lennox and Walker, 1992), because the students are immersed in a constantly changing digital environment and must therefore be to be able to explore and understand the flow of ideas, as well as those from libraries and books but also in the film, in pictures, in the documentary, in interviews and in normal conversations.

In this regard, the teacher must be able to design a curriculum with a pedagogical vision.

ALA (American Library Association), in 1989 made the request to create a framework for the teaching model to restructure the learning process based on information resources for problem solving during the span of a lifetime.

To do this, you need to understand the role and the power of information, everyone must have the ability to locate information, retrieve it and use it in decision-making, creating it and manipulating it through electronic processes.

When the school environment meets the characteristics mentioned above, it creates students who can be defined information literate. (Doyle, 1992) defines the features: an individual who can recognize the accurate and complete information and know that this is the basis of intelligent decision making; He knows how to ask questions on the basis of the necessary information; identifies potential sources of information; he develops strategies; he knows how to use computers and other technology to access additional information; he increases the critical thinking and problem solving skills.

In addition, (Bruce, 1992) he learns independently creating his own network of knowledge (self directed learning), has a personal style with which comes into contact with the world of knowledge; today (Siitonen, 1996) the information literate should be able to be successful in the environments and software solutions, to lead a productive life in a democratic society, to deal effectively with the ever-changing environments.

As mentioned in the first chapter, both the teacher and the student becomes prosumers, as defined Toffler. That is, they become the figures that join the role of producer and consumer of information.
Many of digital educational platforms that are emerging\(^{27}\), based on the model of platforms like Facebook, Twitter, Youtube, Wikipedia, Wordpress at things, because these are based on dynamic collaborative and participative. In addition, the 'OECD has established three main features:
1- there are no special requirements for publication
2- creative effort is needed
3- be used outside of professional practices and regardless of economic returns

### 3.3. The school as a place of crossing

In XX century, information and its dissemination was entrusted to specific media channels such as television, publishing, printing, schools, research centers and universities, in a hierarchical star diagram. The knowledge was spread from the center out.

With Internet structure is inverted in a network model and the information ideally becomes a dialogue and not a monologue, a personal media and not a mass media.

The information produced by the teachers or by the students themselves as in the case of the seventh graders of Teacher Tomatis, whose activities have been described in the previous chapter, are shared in apparently informal environments, as they are shared online community that outside the school, student use for gambling activities or leisure. Online communities could become an important element of comparison to models of education and training. You could create synergies between formal and informal settings, making them spaces of intersections and hybridizations.

These spaces become cognitive connections and social factors that may overcome the rigidities of the formal world of education as their flexibility captures the changes in real time, mixing the differences without splitting individuals according to age, ethnicity or sex.

Intersections become incubators of innovation supported by structures weaker than formal environments; intersections are useful to solve short-term problem or problems related to personal interests, while institutions like public education struggle to assimilate even small changes.

But what we want to emphasize is that the technology in itself will not improve the school environment, but the use that each teacher will make of it will.

It is important that the teacher knows how to select tools in solving real world; an example is the activity proposed by Teacher Tomatis to the students of the third E. Teacher has provided students the information they need to reach their goal: the links necessary for flight booking, an overnight stay and visits to museums.

The teacher then starts from the real problems. The teacher puts students in a position to address the problem to be solved before giving them the rule, instead of starting from the rules of the oral and then let students do the task.

Going back to technology, the focus is not on technology but how it can solve a problem in real life, study, work.

Here digital literacy becomes Digital Pedagogy, thereby referring to the social and cognitive strategies produced in the processing, production and communication.

\(^{27}\)Socloo: https://www.socloo.org/frontend.aspx
3.3.1 Focus on participation

The standpoint of the Digital Pedagogy, participation is different from interactivity. Participation is an element that belongs culture. It is a property of a collective intelligence that responds to the impact of the change in the paradigm of knowledge. Participation offers the opportunity to empower themselves. Young people participating in different communities of practice creating information; This participation should be accompanied by solid cultural to develop critical skills.

Just as every free citizen, the student also has its own literacy. But we are in a period of transition in which the Digital Literate live with Digital Illiterate, bringing out the true current digital divide, i.e. the gap between those who are competent in the use of technology and who is not, regardless of their place of birth in a rich country and digitized or a country in the developing world.

A further comparison is offered by the study of Morin, in 2002, when comparing the convergent thinking of the traditional school, and a polyphony of information. Morin thus describes the "School of Mourning." The school is part of the system of convergent thinking in which individuals are inclined to look for a single solution that is acceptable and fair. In convergent thinking polyphony solutions as elements of social and cognitive dissonance in the intellectual production of the students is absent. The school, still based on the industrial model of the organization, on one-way media, is in contrast to a changing political, economic, social and above all technological society.
Moreover, migration, multiculturalism and multilingualism problems increase also in the classroom.

3.4. The teacher becomes a tutor

The diachronic lexical development of the term tutor, has seen the loss of its juridical connotation. The term teacher instead never had a similar connotation in its diachronic development.
Interestingly, both terms, following the “polyphonic thinking” about school and teaching, suggested by Morin and described above, have come to overlap.

Within the training areas, the term tutor went from indicating a person who is often responsible for teaching a particular material to individuals or small groups, to add a function, to emphasize the purpose and mode rather than the person appointed to exercise professional skills.
The tutor provides educational assistance, aims to help the student to take responsibility for their own formation.
So there is a shift of perspective: the focus goes by the teacher who is a holder of learning discipline, to the student who becomes protagonist of the same training course.
Also the teaching changes, moving from a teaching up to a learning to learn didactic.
The teacher assigns student positions of responsibility both organizational and educational.

In the case of the research described in Chapter 2, Teacher Tomatis, before the start of a lesson in the computer lab, entrusts the responsibility of the laboratory’s keys and the I pads to one of the students. The person who assumes the responsibility, opens and closes the classroom, returns the keys to the front desk and also makes sure that all I pads are returned in good condition and that they have been notified when there is the need to recharge the battery.
In these circumstances, Teacher Tomatis becomes a guide for student and allows each of them to bring out their own sense of responsibility and talent.

In order that this requirement is met, you will have to create an environment in which learning takes place through a program of legitimized participation. The role of tutors in these circumstances has been studied in the field of post cognitive. A survey was conducted on the mental mechanisms that take into account the context of space and time, social and cultural rights.

The process of teaching and learning takes place therefore in an environment of cross artifacts, tools and symbolic systems.
So there is a learning process and a meeting and to confront different points of view and cognitive modes.
The teacher draws an itinerary of cognitive apprenticeship, cooperative and reciprocal teaching.
This results in a co-management of educational experiences, from the teacher and the student.

**3.4.1 On line education**

Online education responds to two objectives:

1- development of creative dimension
2- development of a methodological rigor even more necessary given the amount of data coming online on the web

The teacher disappears in his traditional dress and becomes editor of materials, esparto content, tutors working and learning with students and esparto training.

The literature on the training online written twenty years ago is still relevant today, in fact David Jonassen shows the theory based on Papert that there are three main centers. Knowledge is built through constructive processes, it is facilitated by the collaboration and is determined by the context.

Learning is identified six qualities:

1- active
2- constructive
3- collaborative
4- contextualized
5- reflexive

The last step requires students to be able to reflect on their decisions. N this case technology is a tool that is used to access information, rappresentare ideas and communicate with others. At the same time is a Mindtool, partners or intellectual;

6-context

---

28 Banzato, M. Tutoring nei modelli di formazione online, CLUEB, 2012
The context is necessary for representing and simulating problems and real-life situations.

In the following *Table1* are compared the pros technologies bring in online teaching:

<table>
<thead>
<tr>
<th><strong>TECHNOLOGY</strong></th>
<th><strong>NO TECHNOLOGY</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>production</td>
<td>reproduction</td>
</tr>
<tr>
<td>dialogue</td>
<td>Teacher’s monologue</td>
</tr>
<tr>
<td>Authentic oral production</td>
<td>Passive repetition</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>Explanation</td>
</tr>
</tbody>
</table>

Collaborative learning is not equivalent to knowledge expressed *ex cathedra* accompanied by the study of the individual student at home. Similarly, the communication between teacher and student does not necessarily mean a good collaboration. A good communicator is not necessarily a good collaborator.

Digital skills of tutors have been discussed much in the literature. We list here some considerations. McPherson says the tutor, online or in person, have very similar skills. When they emerge, the differences are substantial. The tutor has, however, a technical and educational role. Mason focuses on the role of the tutor in three dimensions, and social and organizational and interactive. Calvani points out the difference in the fact that, when present, the tutor is collaborative. And when it is online is a more central, being the one who manages the educational material and evaluation. Baumann, Murphy et alia argue that there is a clear difference. You should develop a new philosophy of education to give a foundation for teaching online. This means eliminating the visual cultural markers.

Simpson identifies two main areas of support to the tutor:

Content relating area: based on the cognitive aspect; for example on the development of activities for learning
Not content relating area: it is based on emotional support; for example in counseling type, people-centered.

Students become active subjects, that builds their knowledge; the teacher is a proactive subject, that helps the student to manage and optimize resources and interactions with other students.

This educational model is the sum of an instructional design a more virtual learning environment. The latter is crucial and determining its structure. It can be structured for the discussion, and in this case the tutor becomes a moderator. Or it can be structured on the content of concepts, making the tutor mentor.
According to Charlier, virtual environments left up of three types:

1. created for the transmission of knowledge
2. created to develop individual knowledge
3. created to collaborate groups of people together construct knowledge

A further task of the tutor is well described by the new figure of Pastoral Care. In this role the teacher, having identified the potential and the talent of each student, can at the end of the training course, indicate to the student the next best route. Specifically, the type of school or college that they must follow to develop to its maximum potential and be happy.

Howard Gardner defines Complete Tutor in these terms (fig. 1): an educator who has teaching technological, communicative and methodological skills.

During the training on line tutor will have to prepare to design the course and materials development; also organize students in groups, to ensure that materials are available to all and plan all the activities.

During the run the teacher tutor will

- socialize
- stimulate students to join the activity
- assist during the working group
- give continuous feedback

Collaborative learning: between the tutor and students

Assisted learning: the tutor must be able to inform, support each student; and lead to self-correcting papers. At this stage, usually there are forums where students are confronted.

Independent learning: the tutor is a content expert, serves to give explanations, but is a mere resource content.
be clear in the assignement and assessments
moderate
plan activities
assess

3.5 Teacher’s competences

Teachers in digital environments are required to perform tasks that go well beyond the dimensions of teaching to which we are accustomed (Berge, 1996, Rowtree, 1995, Salmon, 2004).

The teacher must have:

- **pedagogical and cognitive skills**

Teacher must be able to stimulate cognitive, establish topics that are the subject of activity, replying to questions for clarification

- **methodological and organizational skills**

Teacher must intervene on the procedures and organization, set a schedule and deadlines

- **social and communicative skills**

Teacher has to worry about maintaining a climate of mutual trust, be able to analyze the relationships, try to resolve any conflicts and misunderstandings

- **technological expertise**

Teacher must ensure the proper functioning of the system and support the student who have problems

In a recent speech at the Conference "Education, Learning and New Technologies" organized by La Bottega dell’Arte and held Saturday, May 9th at Pieve Theatre, Fiera di Primerio, Trento (TN), Pier Cesare Rivoltella states the problem context and key thematic areas related to the topic. The following points were treated by handgun in his speech:

**Media Education and Education Technology**: there must be balance between the use of technology and media education, the need to work on the media languages and the media as cultural artifacts to develop critical thinking and responsibility

**Logical cultural evolution does not respond to aut et aut but at the et et**: the technologies are not a substitute but complementary. Correct perspective is not that discontinuist, but the continue: the new media remediate the old media. So no more "exclusive" and "revolutionary" logic
Is not the media who do things to children but children who do things with the media: the problem is not the technology, but the practices of adults. The risk is not technological determinism, but the social modeling.

Relationship between formal and informal: informal consists of social media technologies and allow you to act in the existence mediating: the knowledge, the representation of the past, social relations. Risk is that if everything is mediated there is nothing to be known directly. So the school can not keep out the cultural context and individuals’ life: the school (formal) traveling in the opposite direction to the informal

Digital media and social machines are authorial: multimedia player are above all tools with which you can create behavior, create content and experience, then: basic experiential and laboratory teaching

The problem is not to create new digital content, what they fail to see the need to select and aggregate content, comment on them, create the tools to interpret them and make them usable educationally

Web Applications and Mobile available require a pedagogical framework but do not offer results in the formation: the fundamental methodological and didactic framework within which applications are used, without this framework applications are useless and / or harmful

3.6 From education 1.0 to Education 3.0

To indicate the educational model that is emerging is used the expression Education 3.0. It is a way of naming what is set as "new" and "revolutionary" overused and trite, because now it easy to find anything followed by ". and 0" in the belief of being convincing getting the opposite result. Neglecting the unhappy choice, is however very interesting the speech and the simplified models proposed in the Table 2 ,can be a starting point for a discussion on the trends of education and its future.

The post is built on notice that the prof. Derek W. Keats aimed at educational institutions, "or adjust quickly to the constant changes that are producing technologies and web education or risk being marginalized or even ousted from the educational processes of the near future."

Keats believes that there has been a passage from a model of education based on one-way communication from the teacher to the learner, to a model based on Web 2.0 more dialogical and interactive but still remained imprisoned within the framework of the traditional model. With the Education 3.0 a new phase that has definitely broken with the limitations of traditional education, creating an open education system, social, free and centered on learning and on the learner.

-Features of Education 3.0

The main distinguishing features of the Education 3.0 would be:
- Students have many choices in front of them training alternatives to traditional ones
- The student is a reusable content creator
- Evaluation is focused on achievements in learning and not on the frequency of theoretical courses
-Comparative Table

The table (Table 2) allows a synoptic comparison of the three models mentioned by prof. Keats which highlight the characteristics of this education 3.0:

- Socially constructed and reinvented according to the context and needs
- Technology is pervasive, from the technological class is passed to the digital universe
- Communication, is omni-directional, and not between teacher and students
- The school does not have a more precise temporal space location but is everywhere and at all times
- Families is a place where students can learn too
- All can be teachers
- Hardware and software are used anywhere, at any time and at low cost
- Students and teachers are no longer workers and foremen but collaboratively build content.

<table>
<thead>
<tr>
<th></th>
<th>Education 1.0</th>
<th>Education 2.0</th>
<th>Education 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning is...</td>
<td>Dictated</td>
<td>Socially constructed</td>
<td>Socially constructed and contextually reinvented</td>
</tr>
<tr>
<td>Technology is...</td>
<td>Confiscated at the classroom door (digital refugees)</td>
<td>Cautiously adopted (digital immigrants)</td>
<td>Everywhere (ambient, digital universe)</td>
</tr>
<tr>
<td>Teaching is done ...</td>
<td>Teacher to student</td>
<td>Teacher to student and student to student (progressivism)</td>
<td>Teacher to student, student to student, student to teacher, people-technology-people (co-constructivism)</td>
</tr>
<tr>
<td>Schools are located...</td>
<td>In a building (brick)</td>
<td>In a building or online (brick and click)</td>
<td>Everywhere (thoroughly infused into society: cafes, bowling alleys, bars, workplaces, etc.)</td>
</tr>
<tr>
<td>Parents view schools as...</td>
<td>Daycare</td>
<td>Daycare</td>
<td>A place for them to learn, too</td>
</tr>
<tr>
<td>Teachers are...</td>
<td>Licensed professionals</td>
<td>Licensed professionals</td>
<td>Everybody, everywhere</td>
</tr>
<tr>
<td>Hardware and software in schools...</td>
<td>Are purchased at great cost and ignored</td>
<td>Are open source and available at lower cost</td>
<td>Are available at low cost and are used purposively</td>
</tr>
<tr>
<td>Industry views graduates as...</td>
<td>Assembly line workers</td>
<td>As ill-prepared assembly line workers in a knowledge economy</td>
<td>As co-workers or entrepreneurs</td>
</tr>
</tbody>
</table>

Table 2
3.7 Educational policies for the media literacy applied to education

The recognition of media literacy in the Directive on audiovisual media services in Europe (Art. 37) is the result of a long process in which organizations such as UNESCO and the European Commission (EC) have played a crucial role not only in developing the public dimension of media literacy, but also the legitimacy of the importance of media education on the political agenda. The International Congress on Media Education, held by UNESCO in Germany in 1982, ended with the famous Grünwald Declaration on Media Education 29, ratified by 19 countries participating, the prime wellspring of future developments. The Declaration of Grünwald represents a first attempt to clarify the need for education systems and to promote political understanding and critical awareness of citizens about the media. Seventeen years later, as a result of the rapid technological development in the late nineties, the final document of UNESCO at the Vienna Conference, entitled "Educating for the media and for the digital age", states that: "The Media Education is part of the fundamental right of every citizen, in every country of the world, freedom of expression and information, and is functional to the construction and support of democracy" 30.

In 2002, UNESCO promotes in Seville Youth Media Education Seminar 31, which reiterates the critical component of the creative and media literacy, stressing that media education should be included in education both formal and informal level individual and community. The Parliament and the European Commission have played a key role in the development of media literacy in Europe, pushing for the concept to include two dimensions: the protection and promotion of human rights, especially with regard to minors; and the social and economic raison d'être. The permanent Safer Internet Programme 32, the first stage of this protection policy, was initiated in 1999 with the aim of providing parents, teachers and children of security tools in the network. This program covers also other media, such as video. Its goal is "to fight online content and conduct dangerous and illegal", with particular reference to minors. Even the Lisbon European Council (March 2000), emphasizes the socio-economic recognizing that "the European Union is facing a quantum leap originated by globalization and the new knowledge economy" 33. The strategic objective is' to become the most competitive knowledge economy in the world, capable of sustainable economic growth, better jobs and greater social cohesion.

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"The e-Learning Initiative \(^{34}\) is an integral part of Europe's strategy to achieve these objectives. Subsequently, the Multi-annual program 2004-2006 eLearning states that one of its priorities is "fighting the digital divide." The action plan includes the following stages:

a) define digital literacy;

b) identify and disseminate best practices.

From 2000 to 2008, the EC has launched several initiatives to promote digital literacy among member countries: it was formed a group of experts to develop these actions; several studies have been conducted and the results have gradually led to a change in strategy by the Commission from the promotion of digital literacy to the document Public policies and stakeholders in support of Digital Literacy Initiatives.

Promoting digital literacy
The European Commission requested the implementation of a course of action: promoting digital literacy within the e-learning program. To this end, a study was commissioned "to identify and analyze a limited number of innovative and successful experiences in the promotion of digital and media literacy, giving its strengths and weaknesses".

The report *Promoting digital literacy. Understanding digital literacy*, made from the Autonomous University of Barcelona (UAB), it has focused on certain aspects:

a) identify and analyze a limited number of innovative and successful experiences that have contributed to the promotion of digital and media literacy;

b) identify and analyze the strengths and weaknesses of these experiences;

c) offer recommendations for the implementation of the promotion of digital literacy.

Having identified the weaknesses in practice, in the methodology and in the promotion of digital literacy, and in preparation for the implementation of these strategies for future developments, the study suggests the need to tailor actions to different educational contexts and to the different stakeholders, with a view to reducing the digital divide in Europe. All this leads to a new concept whose features delineate idea of literacy not only digital, but also cultural, multi-comprehensive and complex, humanistic, closer to its citizens.

Finally, the study identifies the following factors crucial to overcome the obstacles that prevent the full development of the digital culture.

**-The context**

Determining which areas social and geographic needs to focus the theme of the digital culture, with such priorities and efforts, and how this should be implemented.

The relevance, motivation and involvement: identify strategies to increase the involvement of the public and elicit a positive motivation.

Critical awareness and participation: create platforms to increase the participation and co-responsibility among the public in general and the industrial system of ICT.

The education and protection: to provide systems support and mentoring of all initiatives that promote the ICT, especially for specific groups like disadvantaged people.

Equity and solidarity actions should help ensure equitable access to ICTs in all sectors of society. The most advanced sectors should support and strengthen the weaker ones working with them to address their needs and demands.

The cultural and institutional innovation: governments, education systems, enterprises and institutions must renew itself to benefit from developments in the ICT, and at the same time have to contribute to the expansion and growth of the ICT in all areas of society, each from their specific location.

- The group of high-level experts on digital literacy

Initiatives i2010 and e-Inclusion 2008\(^{35}\) provide that the European Commission set up a group of high level experts on digital literacy with the task of providing their expertise and guidance on policies on digital literacy to be taken in the Communication Commission on e-Inclusion. Experts from industry, academia and civil society, were then invited to comment on the results of the Digital Literacy Review that the Commission produced as a result of its commitment after the Riga Declaration in 2006.

Experts have suggested the following policy recommendations of digital literacy:

- to adapt initiatives to local socio-economic contexts, to support awareness raising (especially for disadvantaged groups)
- Use contexts (and platforms) for formal and informal learning; use appropriate intermediaries to motivate and educate groups and individuals to create their own content
- Support the development of content and services direct to users marginalized
- Focus on the development of critical thinking skills, creative and cultural users
- Develop and implement devices for evaluation and measurement of the impact
- Propose strategies to foster synergies and cooperation between public authorities, civil society and the media industry; involve the private sector.

During the Ministerial Conference and Expo e-Inclusion (Vienna 2008), the Directorate General of Information Society and Media presented the findings of the Digital Literacy Review promoted by the European Commission, as well as the above recommendations, stating in the conclusions that "The digital literacy remains the main challenge that we need a greater commitment to support disadvantaged groups, particularly those over 55 [...].

It seems to be an emerging digital divide secondary in relation to the quality of the uses as well as new requirements to increase the levels of confidence and trust in online transactions and in the use of ICT for lifelong learning for all."

At the legislative level, in September 2006, the European Council published the Recommendation on Empowering Children in the New Information and Communications Environment \(^{36}\), adopted

\(^{35}\) La Commissione ha pubblicato l’8/11/2007 la Comunicazione European i2010 initiative on e-Inclusion to be part of the information society,

\(^{36}\) Consiglio d’Europa, Recommendation Rec(2006)12 of the Committee of Ministers to member states on empowering children in the new information and communications environment, 27 settembre,
by the Council of Ministers during the Ministers 974th meeting. The Recommendation urges member countries to promote the familiarization of children with the new digital environment. A new Recommendation of the European Parliament and of the Council on key competences for education permanent (18 December 2006) specifies what skills should be developed:

- digital competence (critical use of technology),
- social and civic competence (equip the subjects of tools necessary to play an active role in society and democratic),
- critical awareness and creative competence (the subject should be able to evaluate the creative expression of ideas and emotions by the media).

The same year, the European Parliament and the Council publish the Recommendation 2006/952 on the protection of minors and human dignity (20 December 2006), which stresses the importance of teacher training in the field of media literacy; introduction of media literacy in school curricula is to protect children and promote the responsible use of the media among all users. All these initiatives have encouraged the development of a European policy on media education (and media literacy).

In parallel, with regard in particular media literacy, the European Commission has set up the EU Media Literacy Expert Group, made up of experts from diverse backgrounds that reflect the position of industry and research than the average literacy. The main purpose of the group is to analyze and define the objectives and trends of media literacy, identify and disseminate best practices at European level, to propose further action to promote media literacy. Based on the results achieved by this group of experts, the European Commission launched a Public Consultation, or a questionnaire to collect the public’s views on media literacy with respect to digital literacy, as well as information on the initiatives undertaken in the media commercial, film and the Web. The responses received showed that the best way to speed up the development in this field is to disseminate best practices of media literacy conducted at regional and national level. "It also showed that lack the criteria or standards for assessing media literacy, and that there are good practices on all aspects of media literacy. Consequently, the Commission feels the urgent need to promote research in the longer term and haul to get to identify new assessment criteria and new good practices" (p. 5).

In the second half of 2007, the Commission mandated the UAB to conduct a study on Current trends and approaches to media literacy in Europe. The study draws a map of actual practice in implementing media literacy in Europe, confirms the results of the aforementioned consultation and recommends some measures to be taken to increase the spread of media literacy in Europe. Also identifies the possible economic and social impact of Community involvement in this field.


The trends identified are: a) the media convergence as a pervasive reality in Europe; b) the growing concern about the protection of children, especially children; c) the critical awareness of the entire population; d) this growing media literacy in school curricula; e) an industry average of more careful and responsible; f) the active involvement of civil associations (parents and teachers); g) participation of the European institutions and the creation of regulatory bodies.

As for the difficulties faced by the media literacy, the study identifies:

a) the lack of visions, objectives, concepts, methods, research and evaluation;
b) the presence of cultural barriers that prevent innovation in certain regions, and the lack of coordination between the different parties involved, at both national and European level.

In response to these problems, the study offers some recommendations for the promotion of media literacy:

a) the relation technology-innovation as a way to promote awareness of media technologies; b) promoting creativity;
c) awareness campaigns in a critical sense;
d) increased investment in research;
e) establishment of regulatory authorities;
f) establishment of public policies to ensure that all people share the benefits and responsibilities of the Information Society.

Another significant initiative is the European program MEDIA 2007, with which it emphasizes the importance of media literacy, and in particular educational activities related to the film, as the festival (in cooperation with schools) involving young adults and guys.

Following these initiatives, 20 December 2007, the Commission sent to the European Parliament the Communication A European approach to media literacy in the digital environment 39, based on the conclusions reached by the Media Literacy Expert Group after the Public Consultation, and initiatives, current and past, conducted by the Commission on media literacy. This Communication sets out a more precise concept of media literacy that includes all the main aspects that the European Commission and member states are expected to cover about media literacy.

On 16 December 2008 the European Parliament adopted a resolution on the Report of Media literacy in a digital world, in which it is required that all member countries give systematic attention to the development of media literacy. Parliament "welcomes the Commission Communication COM (2007) on the same subject. However, there is room for improvement in how the European approach to media literacy should be more defined, especially as regards the inclusion of traditional media and recognition of the importance of media education. " Also it urges the Commission to request that the regulatory authorities of audiovisual and electronic communications to cooperate for the improvement of media literacy; It recognizes the need to develop national codes of conduct; It urges the Commission to develop an indicator of media literacy with a view to stimulate further diffusion in Europe; finally, it calls on the Commission to

disseminate its policies to promote media literacy, working with local, regional and national, to
intensify cooperation with UNESCO and the Council of Europe.

Parliament again urges the Commission to develop an action plan on media literacy and to
organize a meeting with the Committee on Audio-Visual Media Services in order to facilitate the
exchange of information and cooperation on a regular basis.

-The European Directive on audiovisual media services

All efforts to make the digital and media literacy a key element of the development of the
Information Society in Europe converge in the enactment of the Directive on audiovisual media
services in Europe, incorporated in December 2009 in the legal systems of all EU member states,
with which for the first time introduces the need to promote media literacy in the regulation of
audio-visual systems.
This Directive is set to become one of the main policies of the media in Europe in that Article.
Thirty seven institutionalize media literacy as one of the measures to be supported strongly.

Media literacy is therefore a vital element of the regulation of the audiovisual industry and is
defined in a somewhat 'less detailed than in the past: "It includes all the skills, knowledge and
understanding necessary for consumers to use the media effectively it's safe. Directive proves to
be innovative as it underlines the creative and critical users, as well as the importance that this
operates informed choices and to draw the maximum benefit from new technologies. In the
Directive it is argued that a media-literate person is not a passive consumer of programs, but
rather a subject able to select through informed choices that want to consume.
In addition, the Directive emphasizes the protective function of media literacy, and calls on all
member states to "promote the development of media literacy in all sectors of society and to
closely monitor the progress," thus reinforcing the idea that media literacy is not responsible
only formal education but also of the media industry professionals, regulatory authorities,
households.

In conclusion, we can say that the last ten years have been particularly favorable to the
development of European policies on media literacy. Over the years the European Commission
has fixed the legal and philosophical basis of its development, both in Europe and in the member
countries. Therefore, it is expected that in the coming years policies on communications and
education of each country know how to properly promote the development of media literacy in
their population and thus stimulate media literacy universal.

3.8 Italian Strategy for Digital Schools

As reported in the Review of the Italian Strategy for Digital Schools40:
The Italian Ministry of Education launched in 2007 a National Digital Schools Plan (Piano
Nazionale Scuola Digitale) to incorporate the Information Communication Technology (ICT) in
Italian classrooms and using technology as a catalyst for innovation in the Italian education
hopefully leading to new teaching practices, new models of school organization, new products and

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tools to support quality education. The Ministry of Education, Universities and Italian Research asked the OECD to revise its plan from an international perspective and suggest improvements.

The small budget of the Plan has limited the effectiveness of its various initiatives. In its current design, a significant increase in the budget plan through public and private sources is a necessary condition for its success. Given current budgetary constraints, a significant budget increase can be difficult, and the report proposes to revise some of the features of the Plan in order to achieve two objectives:

1) accelerate the adoption of ICT in schools and in Italian classrooms;
2) Create a Network Innovation Laboratories schools test pilot and the invention of new pedagogical and organizational measures to improve the Italian education, the reorientation of the innovation projects.

As we have seen from the trial of the IISS Villanova Mondovi (CU), but also by the example of the nine schools participating in the project leader "Integration CDD / Textbooks"

IC Pontenure and Cdeo Roveleto of Cadeo (PC) that has long worked on a project of experimental teaching for the secondary school level called Libr@, aimed at a gradual integration of textbooks and technological tools (tablet I Pad) teaching / learning daily. Libr @ with teachers and students realize together digital textbooks for self-produced materials more related to lab or learning by discovery (art education, geography, physical education, religion, music education);

IISS "Ettore Majorana" of Brindisi working in particular on self textbook edited by a community of teachers-authors that are recognized in a network, the network "Book in Progress" of the school of Brindisi is creator and leader. The initiative is part of a larger project, for use with new teaching methods when technology is one of the possible means for the transmission of content;

ISI "Sandro Pertini" Lucca joined the project "Book in Progress" since its inception. From school year 2012-2013 adopted the texts of English and computer science, actively participating in their development. The self-production of the "manual" allows the school to use a textbook "sewn" on the training needs of its students. As for English, for example, students are involved in pathways of development of the area and they need to deepen the study of the micro centered on language and on issues related to tourism;

ITE "Enrico Tosi" in Busto Arsizio (Va) is a participant in "Book in Progress" and coordinates the section of letters. The experience involves the totality of the biennium (30 classes) and covers several disciplines, including Italian, math, science, English, law, economics, history;

IISS "Carlo Emilio Gadda" Fornovo di Taro (PR) have focused on self-video book reviews according to the methods of cooperative learning. This teaching method made it possible to work cross-disciplinary, involving actively in the learning process all students, with particular attention to the Special Educational Needs (BES);

IC "Giannuario Solari" Loreto (An) came about a year in net "Book in Progress", working with its faculty self-production of textbooks for the secondary school level, the sector that until 'a.s.2014 had been discovered. The testing of this idea has been accompanied, in the school, to a
broader process of innovation at all levels: educational, technological, organizational and relationship with the land;

**IC San Giorgio, Mantova** is experiencing in the secondary school level the creation of digital educational content with student involvement. The goal is not to produce textbooks themselves, but enable learning paths in which the students themselves, with the support of the teacher, play an active role in the process of knowledge construction;

**IC "by Bruno Osimo" of Osimo (AN)** working with students from the secondary school level and the primary for the construction of digital educational content in order to cross disciplines. The work can involve all students in a collaborative learning process, giving the opportunity to those who are dysgraphic to cross the hurdle of "bad writing" to focus on the cognitive process;

**IC "Baccio da Montelupo" Montelupo Fiorentino (FI)** has experienced a process of creation of digital educational content in open classes for primary school that has enabled to tackle across the board arguments concerning two subject areas, the curriculum of mathematics and that of Italian. The final product was the creation of a digital cookbook (www.ardesiatechincucina.it).

Support the production of digital resources is an essential prerogative to up to achieve successful results. Digital content and educational tools have a variety of needs, require the mobilization of the private sector and again through an initial sacrifice by individuals, the contribution of teachers and parent participation. This will be the way to a network involving all participants in learning.

**Conclusion**

The use of ICT in language teaching is not the solution to any problem arising in the school environment. On the contrary it can be a double edged weapon. The teacher might feel justified in not having to produce contents for the students, and the student may feel overloaded. The digital pedagogy does not forget the basics of traditional pedagogy. It is therefore important to remember that the teacher is primarily an educator and a mentor. It is also important the participation of teachers of the same school and between different institutions as well as the ability to take full advantage of the resources the institutions provide.
Chapter Four- Flipped Classroom tools and gamification

4.1 Flipped Classroom and gamification

How many students would choose to go to school and to perform the daily tasks if these actions were not mandatory?

Arousing interest, making it clear to students that studying and performing tasks is useful to their growth and their future role in society, for teachers is a test still very difficult to sustain.

The world outside the school’s walls is very fast, dynamic, dangerous and fascinating. In contrast, the scenario that nine times out of ten is presented to students at the threshold of the classroom may seem to come from a long time ago. Uncomfortable chairs, discoloured blackboards, small benches and no door on the virtual world.

How the game can help teachers succeed in this venture?

We have seen in so far that Flipped Model is based on digital innovation and that it requires creative tools that really fits with the ones the students use in their everyday life. What is interesting is that is the teacher him or herself to create the games for the students, that may finally look at their teachers not as enemies or distant figures, but as fun generators.

Gamification, or the inclusion of elements of the game in the context of non-game, offers the opportunity to help schools solve these difficult problems.

The game designer Jesse Schell\textsuperscript{41}, suggested a kind of gamepocalypse, a hypothetical future in which everything in daily life becomes "gamified", from brushing your teeth to the gym everyday. So far, gamification has been used for the promotion of commercial products and as a support to social networks. For example, "localize" has become an added value, a way to win "like" consensus. An example is FourSquare, the application that allows you to report a local on a map and evaluate the service with a real "ranking". There are also games like Chore Wars and EpicWin, asking to virtually complete chores of daily living such as washing dishes, ironing and sorting cabinets.

The potential of gamification, however, goes beyond the promotion of healthy lifestyles and marketing strategies. What is most intriguing is that players voluntarily invest countless hours to develop their problem-solving skills in the context of games. A dream perhaps for a teacher who imagines it could happen in class during the history lesson.

The players recognize the value of the "playful" practice and develop personal qualities such as persistence, creativity, and resilience through the game. Gamification tries to harness the power of motivational games and apply it to real-world problems. In our case, the motivational problems at school.

United States for example: motivation and commitment are the main challenges for the American educational system; in fact in the United States about 1.2 million students can not pass the entry test in high school.

In Italy an article in La Stampa\textsuperscript{42} reports that European statistics reveal that 17\% of young people between 18 and 24 years in Italy, or about 500,000 people, is leaving school before finishing high school, compared with an EU target of 10\%.

Similarly, the software Edmodo\textsuperscript{43}, really similar to a social network like Facebook, or simply a site created by Google Sites\textsuperscript{44}, the platform Educreations\textsuperscript{45} and blogs that teachers create for their students, and even the class register, using the Flipped Method represent a metamorphosis of school’s environment in places of sharing and growth. Everything becomes more familiar in the eyes of the students who reduce the distance between their own life and school.

At school there are already situations where we can see the play element: the students get votes after having successfully completed the assignment. These votes are real scores, as those that are won in a game. Students are rewarded or penalized for the conduct that makes the behavior a variable for the victory or defeat, as well as in a team game.

However, something in the school fails to engage students. Conversely, if the challenge is done in video games and virtual worlds kids become small genes. As evidence of this, 28 million people collect their crops in the world of Farmville but none of them in reality wants to be a farmer, and more than five million people playing World of Warcraft for more than 40 hours a week, maybe ignoring the medieval history. On the other hand, math or the version of ancient Greek, enclose pitfalls that are definitely up to a framework of Warcraft, reporting disappointing results and cause discouragement, insecurity, desire to cheat (often with the solutions contained on a post-it in dictionaries or hidden in socks or furtively searched on the Internet on their personal smartphones). Most students would not know how to describe the activities in classroom at school as well as the instructions for playing online or set up their own Facebook page.

Understanding the role of gamification in education, therefore, means to understand the circumstances in which the play elements can lead to learning. Formal School’s rules, do not only generate formal effects on students. Non-formal effects affects emotion and the social role of the student-player.

Similarly, gamification creates new rules for execution and can create new emotional experiences for the students, it also can make them reflect on their sense of identity and their social position.

\textsuperscript{42} La Stampa online/Scuola: 15/01/20
http://www.lastampa.it/2015/01/20/cultura/scuola/matitur-quasi-milione-in-italia-abbandona-prima-W1wQ8URS5QN6tqZJ8g0XsK/pagina.html

\textsuperscript{43} Edmodo https://www.edmodo.com

\textsuperscript{44} Google sites

\textsuperscript{45} Educreations: https://www.educreations.com
With gamification for example, you can:

- create a ranking for the best reader of the class by assigning one point for each "optional" book on a topic covered in class;
- reward win a medal for the presence or the constant performance of the tasks in a month;
- elect the Best Detective Science in science class giving a prize to the student who asks the best questions.

This can motivate students to participate more actively to change their concept of themselves as learners.

The existing gamification projects can be applied in different ways. Some people choose to gamify home-works without transforming their work in the classroom, and some people are involved in projects of cooperation with game designers to create curricula that include the game in the lectures. Some other uses Flipped Method's tools.

4.2 The cognitive, emotional and social aspects

Three are the aspects on which gamification operates.

. The cognitive aspect

Take for example Angry Birds, a game for I-phone asking players to take down some towers with the launch of birds with the use of a slingshot. Players need to understand what are the physical properties of the different materials that make up the towers, the ballistics of the sling, and the structural weaknesses of each tower. In fact they launch birds, look at the results, plan their moves. In essence, the desire of players to beat each level makes them small experimental physicists.

The games guides players through the process of mastery and keep them busy with tasks that are potentially difficult. A fundamental technique of the game design is to offer practical challenges that are perfectly adapted to the skill level of the player, increasing the difficulty as the player's skill increases. Specific, of medium difficulty, the immediate objectives are motivating for students and these are precisely the objective that the games provide.

The games also provide multiple paths to success, allowing students to choose their own sub-goals within a bigger task. This also supports the motivation and commitment.

These techniques, applied to school, are able to transform the prospects of the students with respect to learning. School students are often told what to do without them realize the great benefits of the work they have to perform.

Gamification can help students who ask: "If I want to succeed in school, what should I do?"

Students' tasks are clear and feasible promising them immediate rewards instead of vague and long-term benefits. In this case, the reward is not a vote, but a challenge, a more difficult problem. That is what happens in games better designed and have an endless array of fans.
. The emotional aspect

The games rely on a series of strong emotions, curiosity, frustration, joy. They provide many positive emotional experiences, such as optimism and pride. Above all, help players transform negative into positive emotional experiences. Very negative emotions can cause failure. The chances of failure are directly proportional to the efforts made to win. In games it happens in fact to have to repeat an action over and over again before understanding the winning strategy. Whenever you make a mistake you buy one more element to the solution: the chance to repeat ad libitum an action do not weigh down the player who understands that the risk of failure is not the major obstacle.

In school, instead, the possibility of failure is high. Students have few opportunities to try, and when they do it, the stakes are very high. No wonder that students will experience such a state of high anxiety.

Gamification redefines failure as a necessary part of learning and shorten the feedback loops, giving students ways to assess their skills, and create an environment in which the effort, not the master, is rewarded. Students, in turn, can learn to see failure as an opportunity, instead of becoming powerless, fearful or overwhelmed.

. The social aspect

The games allow players to change identities and roles, asking them to make decisions on new points of view. In video games, players can assume the role of mercenaries armed with guns, elven princesses and more.

Players also take roles exploring new sides of themselves in a protected environment. For example, a shy teenager could become a leader or a master of dozens of other players in epic battles against legions of enemies.

The development of a strong identity in schools helps to engage students with the long-term learning. However, many students do not feel as if they were able to create knowledge. For these students, only gaming environments are able to provide the opportunity of being able to study.

The game may well provide social credibility and succeeding in it can provide the recognition for academic achievements, who might otherwise remain invisible or even be vilified by other students. Approval may be given by the teacher, but the Gamification can also allow students to reward themselves during the game.

A well-designed system of Gamification can help players to take on significant roles fruitful for learning. Developing their identity through the game and rewarding them appropriately, the teacher can help students to think differently their potential in school and what the school might mean for them.
4.2.1 What are the benefits and risks?

Gamification can motivate students to engage in class, give teachers the best tools to guide and reward students showing them that education can be a joyful experience. The students themselves understand what are the means to learn. The challenges, however, are significant and must be considered. The Gamification could absorb all the resources of the teacher; it could teach students that they must learn because they will have a reward in return. On the other hand, the playfulness requires freedom: the freedom to experiment, to fail, to explore multiple identities, to control their participation and experience. Therefore making the game required, means to create a wrong assumption assimilating the dictates of the task in class or of a query.

In short, some gamified projects will succeed, others will fail. The trial is still large, but the common goal is to monitor the objectives achieved with gamification and create new media for teaching for increasing motivation in students.

4.3 School Digital Environments

Flipped classroom is a new tool for teaching, which provides teachers with the opportunity to create their own teaching material, based on the specific needs of the class. We said that to do this, flipped classroom needs special tools of digital technology and that much of the work that was previously done in class is now being done at home. This means that traditional way of study changes, but so do the environment in which learning happens. Flipped Classroom requires a digital environment.

Most of the Italian teachers use Edmodo.

Edmodo is a free portal for e-learning useful to monitor the progress of the students, to organize lectures and materials in a shared environment. Teacher can then publish and deliver lessons, easily create tests as this software casually extracts questions from an archive; students can upload their elaborates and ask anytime any questions between each other and their teacher. It is also a way to generate in a short time test always new and to reduce the possibility of copying. Furthermore, evaluation is immediate. You can connect on Edmodo also via smartphone, and receive notifications to every assigned task.

Here are the steps that a teacher must follow to enter Edmodo; it is easy to find several tutorials on line on how to create your virtual class in Edmodo. Here follows the example of a teacher from Cavazzano who publishes this material on the following public link:

http://comprensivocavezzo.it/files/MOIC838003/istruzioni_docenti.pdf

- As shown in Figure 1, just connect on the site www.edmodo.com, enter your data: e-mail address or username, password, and indicate the role.
- fill in the fields: username and password/ Email and title, first name, last name and then click sign up. (fig2)
• clicking *Create*, you can create your own class, or by clicking on *Join* you can subscribe to the class of a colleague. Each class group will have a code in the upper right. *(Fig3)*

![Image](image1.png)

*fig.3*

• then you can select *Account* and create your own one choosing a photo profile, insert your information, decide about notifications. *(fig4)*

![Image](image2.png)

*fig.4*

• The notifications will be visible in the right corner of the homepage, this section highlights upcoming events, new responses to messages, warnings and messages to other teachers and students. *(fig5)*

![Image](image3.png)

*fig.5*
You can access a calendar in which indicate the activities and remind each student their own deadlines. (fig 6)

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*fig.5*

*fig.6*
- In Edmodo you can collect the votes in a register, clicking on Grades, and then export them *(fig 6)*

- Library, where you can place your materials for lessons and create your own archive without the necessity of carrying around USB keys. *(fig 7)*
- You can add links, images etc...(*fig 8*)

![Add to Library](fig#8)

- You can create new folders and share them in each of your classroom (*fig 9*)

![Add to Library](fig#9)
- On the homepage of the class you can enter a message, attach a file and then send it to the class by clicking on *Send* after selecting the class, you can send a message to each of the class members simply selecting their name. *(fig. 10)*
On the right of the page you can see the class members and clicking on *Manage* and then *Parent code*, parents will have the access to Edmodo. Parents can access the calendar, tasks, and their children’s grades. *(fig 11)*
Teacher can create a test for all, or can also create a specific test for each student; you can choose multiple choice, true or false, cloze test or short answer question; teacher can also create assignment. *(fig.12/13)*

Potete assegnare i compiti a tutta la classe o ad un alunno

![fig 12](image12)

You can also create polls *(fig14)*

![fig 14](image14)
4.4. Instruments and tools

In the flipped method both teachers and students produce and publish teaching materials in order to share it between them and the students or teachers of other classes in the school circuit or even in the world. This would not be possible if certain instruments were not designed. I am referring to some software like Prezi, Educreations, Padlet and platforms as Kahoot.

All these tools were used in the activities that we analyzed in Chapter 2. In addition, the teacher Daniela Tomatis, who allowed me to observe her work in class, has created a blog called The machine goes on⁴⁶, on which she published her presentations, activities with students, the material of reviewing for the third exam media etc. Having a blog allow the public to share her work with teachers, parents and students all over the world. The blog can be visited and followed on the Google circuit. In this way, teachers from all over the world can find in material and creating a network of global and free educational training.

Teacher Tomatis' blog is divided into four sections, respectively: Integrating technology, Flipped Classroom, Grammar and Vocabulary. There have been published some of the activities carried out in all areas with the explanation of the progress.

Teacher Tomatis flips teaching even using a hybrid method, i.e. using slate blackboard. This means that the Flipped Method is a great collector of ideas and tools.

Prezi is a tool created for presentation and storytelling. You can zoom in and out the presentation. Prezi is used in Education and also in business conferences and information visualization. It is compatible with Adobe Flash, Adobe AIR.

Some minus points of Prezi have arisen, as regards the lack of colors and fonts, as well as the fact that the zoom can induce nausea. Also some problem arise for students with disability as you can not add Alt tags.

Educreations is a free app you can download at www.educreations.com. Teacher Tomatis’ student of second year used Educreations to realize their grammar content videos as described in Chapter 2.

It is easy to use. Just press REC and then start to write or draw on the page while explaining what appears there. It seems to become a miniature LIM, creating lessons and educational activities: explain a math formula, make a comment to a work of art, creating new exercises to propose to the other classmates, reporting a certain subject.

The menu is basic:

⁴⁶Tomatis D. The machine goes on: http://themachinegoeson.blogspot.it
Ten color options, the eraser, the arrow to cancel and the insertion of new pages. With the text tool, you can enter a caption to a photo, and move it where you want. The letter E allows you to add a picture from your library, or from the Web to Dropbox, and position it, rotate it, zoom it in or out. Once finished, the video can be shared even to those who does not have an I Pad. You can send e-mail, copy the link on a blog or a website, or share it on Twitter or Facebook. With a few more extra step it is possible to upload it on YouTube and make a record of the screen while the video is running, edit and then publish it.

"Paper for the web" or "virtual wall"47: two definitions that are well suited to Padlet, an app for PC, tablet and smartphone that requires only a quick and easy registration for use.

Once inside with our account, clicking the icon in the upper right "+" you will open a new board, which is a virtual wall on which to affix, by double-click, virtual post it which can contain text but also links, images, video, maps and documents of various kinds.

It can therefore be used to pin ideas or digital content on a topic (such as a virtual notebook), or to assemble a multimedia lesson or even to make a brainstorming or cooperative learning in school.

Thanks to "privacy", in fact, every wall we create can remain visible only to us, or even to others and, in the latter case, we can choose whether to give an opportunity for visitors to view only, or even to write something. For added security, you can also check the "moderates post" so that the post, before appearing on the board, need the approval of the moderator.

There are numerous possibilities to make our virtual wall as pleasant or most appropriate to our needs: we can set the background, enter a title, a description, a thumbnail, modify the structure; We can also share it through social media (Facebook, Twitter, Pinterest, Linkedin, Google Plus and Tumblr) and export it as a pdf, png, excel or csv.

Kahoot! is useful to create quizzes, discussions and online surveys to be used at the end of a lesson to check understanding or at any other time in the educational activity. Teachers need a surface on which to project the questions - LIM or simple projectors - and every type of device that can connect you to the Internet - smartphone, computer, tablet - used as responders through which students submit their answers to the site. The teacher, after registering on https://getkahoot.com/, has the opportunity to create a questionnaire on the

47 Insegnanti nell’era digitale: 
platform Kahoot!. Creating a quiz you can choose the number of responses (multiple choice) and support the application with pictures or short videos by uploading them with a simple drag and drop. Teacher can also decide the time for answers depending on the difficulty of the questions. The time is marked by several jingle that change according to the latter made available (from 5 to 120). The presence of a "soundtrack" fast-paced serves to give the charge to competitors because what occurs is a real race where the involvement of the students is guaranteed.

It moves to the next question when the last player responded, but not before he had shown the correct answer, a histogram with the number of responses received for each option and a partial ranking with the points given to each player. The final results can be downloaded in Excel. The teacher prepares in advance its quiz (the number of questions is unlimited), and can change them at any time. These remain in the private archive, but you can also make public and share it with other users. The same happens when you are playing: in fact as you can read in Chapter 2, during my research the students of third year were playing with Kahoot! to test their knowledge on Canada. At the moment of the ranking we reckon that other students from other schools were playing with them.

It is possible to quit the music, randomly reorder the answers in each question, slide automatically the quiz questions. Students that want to join the race do not have to digit the PIN that appears on the screen of the LIM, then enter a nickname that will be the one in which the player will be identified on the screen. Once all have entered the game you throw the quiz. This tool is in English, but the interface is simple and intuitive. Because of its extreme usability Kahoot! is suitable for every type of school. Pupils do not need an account to access but they do simply with PIN provided from time to time. Kahoot! is free and can be used with any browser. The developers continue to introduce new and enhanced drawing also on user reports. For problems or questions a fast and efficient technical support id provided.

**Conclusion**

The tools used by teacher Tomatis are just some of thousands of ideas that every day teachers creates in their own minds. The rapid technological development only proves to be at the service of a cutting-edge creativity from teachers and the contribution that students give.
Conclusion

The use of digital technologies in education is not mandatory, although a normative process that sees digital technology protagonist of teaching in the XXI century already started. This thesis shows that the Flipped Classroom aids the teacher to engage all types of learners in the web environment they are very familiar with. It helps students recognize their teacher as a digital citizen like them, that with them, knows to keep up with the times. The Flipped Classroom is a tool that allows students to develop their digital literacy and to be able to create their own knowledge of being able to live peacefully in a hybrid environment, the one of the traditional classroom that has a new connotation, becoming a laboratory, and the digital environment that becomes the place where learning is a pleasure.

Technology education can be dangerous if used in a superficial and unconscious way. Noam Chomsky describes it as a neutral element, comparing it with a hammer, which can be useful to build or to kill. But if used in pedagogical approach can encourage creative exploration, independent thinking, the desire to overcome any kind of limitations. Technology should inspire students to stand on their own, to challenge the doubts, to create alternatives when the solution is not in front of their eyes. Teacher must become an expert in digital technology and has to create strong trusting relationships not only with the students but mainly with parents. A flipped teacher can explain and provide parents of all the necessary information about in class and at home activities. Moreover Flipped Method increases self-consciousness about knowledge and potential, and change class time setting. Everything becomes new and need new lenses to be read.
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