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"Proposta di adattamento linguistico di una sezione del BESA all'italiano"

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"A linguistic adaptation of a subtest of the BESA to Italian: a proposal"

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English Abstract

Acknowledging the insufficient resources of adequate bilingual assessment tools in Italy, the thesis proposes an Italian adaptation of a subtest originally directed to the assessment of English-Spanish bilingual children. The test battery BESA (Bilingual English-Spanish Assessment, Peña et al, 2018) from which the adapted subtest is taken, is described. In addition, the BESA battery is compared to another test already available for Italian speech therapists: the BaBIL.

Italian Abstract

Tenendo in considerazione la scarsa disponibilità di adeguati test linguistici specifici per soggetti bilingui in Italia, la tesi propone l'adattamento all'italiano di un subtest originariamente destinato alla valutazione di bambini bilingui inglese-spagnolo. La batteria di test BESA (Bilingual English-Spanish Assessment, Peña et al, 2018) da cui è tratto il subtest adattato, viene descritta in dettaglio. La batteria BESA è inoltre comparata con un altro test linguistico già reperibile dai logopedisti italiani: il BaBIL.

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INTRODUCTION

Considering the scarce availability of adequate bilingual assessment tools in Italy, the thesis intends to analyze a test battery directed to the assessment of English-Spanish bilingual children called BESA (Bilingual English-Spanish Assessment, Peña et al, 2018), and proposes an adaptation into Italian of one of its subtests. The adaptation is followed by a commentary and finally a comparison between the BESA and an Italian test battery for bilingual children is made, giving space for some further discussion on the topic.

The first chapter introduces the contents of the paper with a brief description of the phenomenon of bilingualism and a list of some common misconceptions around it. In addition, it presents some data about the bilingual situation in the US and in Europe and then discusses language impairment in bilingual children and the need of more effective assessment tools for bilinguals. The purpose and structure of the BESA battery are described in Chapter 2, while roughly outlining the various subtests. Chapter 3 resumes the information provided in the BESA Manual about the psychometric properties of the test battery, whose validity was established after a vast amount of studies and data collection. Chapter 4 and Chapter 5 describe the English and Spanish protocols, while analyzing the single subtests in more detail. Chapter 6 represents the central focus of the thesis and is dedicated to the proposal of adaptation into Italian of one subtest included in the BESA battery: the Spanish Morphosyntax subtest. The next chapter provides some theoretical considerations about test adaptation and briefly discusses about the risks and problems that can rise during the process. The considerations are followed by a commentary of the adaptation that examines the translation and adaptation process of the Morphosyntax subtest, lingering on the principal issues that were encountered. In Chapter 8 the structure of the BESA battery is compared to an Italian test battery which is already available for Italian speech therapists: the BaBIL. The contents of the thesis are finally resumed in a last chapter, that takes the opportunity to briefly discuss about new possible future developments in the creation or adaptation of new bilingual assessment tools, addressing once more the current scarcity of specific bilingual assessment tools for Italian children.

CHAPTER 1 – Bilingualism and Language Impairment

1.1 Bilingualism and common misconceptions

The most accepted definition of bilingualism in the neurolinguistic field is that of "being able to understand and speak two languages, a language and a dialect, or two dialects".[1] Bilingualism can be thought of "a continuum of language skills in which proficiency in any of the languages used may fluctuate over time and across social settings, conversational partners, and topics, among other variables".[2]

According to a 2012 Eurobarometer Report [3] about Europeans and their languages, it has been estimated that around half of the population is bilingual. Nevertheless, bilingualism is still surrounded by a lot of misconceptions. It's not infrequent for people to think that a bilingual is supposedly equally proficient with both languages in speaking, listening, writing and reading and that any child, if exposed to many languages, will easily pick them up and become bilingual or even multilingual. However, it's the combination of many factors what actually allows language to be acquired in the long term.

The main reason why a bilingual individual typically has different levels of proficiency in the two languages is because of the different environments in which they received the inputs of the languages. If a child learns two languages during their early childhood but then stops receiving inputs of any kind from one of them, they will not become bilingual. Consistency of the inputs and outputs, commitment, and specific given purposes are essential for a child to maintain a second language.[4]

The fact that a child's brain is more predisposed to acquire and learn language does not mean that people can't become bilingual at a later age. An individual doesn't need to have a perfect speech without any kind of accent in order to be considered

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[1] Goglia, F, Brambati, S. M., Mazza, M., Baur, S. (2004)

[2] Grosjean,1989; Bialystok, 2001

[3] Special Eurobarometer 386 / Wave EB77.1 Special Eurobarometer (2012)

[4] Copyright © 2020 · Magazine Pro Theme on Genesis Framework

bilingual, and the fact that they are speaking two or more languages fluently doesn't automatically make them excellent translators and interpreters. Although translation has been considered an innate skill by scholars such as Brian Harris (1973), it is viewed as a skill that is present in parallel with bilingualism that still depends on interlingualism in order to be perfected.[5]

1.2 Bilingualism in Europe and in the US

All around the world, considering every language and dialect variety, a remarkable number of bilingual people can be found. Getting precise statistics is a difficult task but it has been estimated that around 60% to 75% of the world is bilingual.[6] Other studies also show that bilingualism is expected to grow even more in the future.[7]

In Europe there are many countries that are considered bilingual or multilingual: some of these countries recognize two or more official languages while others only have one official language but recognize other languages locally.

Countries with more than one official language are for instance Switzerland (German, French, Italian, Romance), Belgium (Dutch, French, German), Luxemburg (Luxembourgish, French, German) and Finland (Finnish, Swedish, Sámi).

On the other hand, other countries recognize only one official language, but they recognize more than one official language in a specific area, such as an autonomous region or community. It's the case for countries like Italy: languages such as French in Aosta Valley, German and Ladin in Trentino-Alto Adige/Süd Tirol, Slovene in Friuli-Venezia Giulia, Sardinian in Sardinia and Albanian in Sicily, are recognized as official together with Italian. Aside from these recognized minorities, there are many other varieties, including a vast amount of dialects, that are spoken in different portions of the country.

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[5] Toury (1995)

[6] Baker, 2000

[7] Shin & Bruno, 2003; Graddol, 2004

According to the 2012 Eurobarometer survey, in accordance with the EU population, the most widely spoken first language is German (16%), followed by Italian and English (13% each), French (12%), then Spanish and Polish (8% each). The results of the study have shown that just over half of Europeans (54%) are able to hold a conversation in at least one additional language, a quarter (25%) are able to speak at least two additional languages and one in ten (10%) are conversant in at least three additional languages. Comparing to previous surveys, the five most widely spoken foreign languages remain English (38%), French (12%), German (11%), Spanish (7%) and Russian (5%). In some countries of North-Eastern Europe, the tax of bilingualism rises significantly. Most of the population in Luxembourg (98%), Latvia (95%), the Netherlands (94%), Malta (93%), Slovenia, Lithuania (92% each) and Sweden (91%) can speak at least one language in addition to their mother tongue.

The bilingual situation in North America shows clear differences. According to the most recent census data of the US [8], only 20% of the Americans (around 60 million of people) can converse in two or more languages, in contrast with 54% of Europeans. The growing amount of people able to speak English has been the main reason why most of the English-speakers of the US don't really feel the need to learn another language. Other English-speaking countries show rather low levels of bilingualism too: Canada has a 19.7% level of bilingualism[9], Australia has a 27% [10] and the United Kingdom even drops to 7.7% [11].

It's to be noted that the more recent census data of the US was released in 2015, therefore the current situation may differ, given the large growth of the Hispanic population in the last years. The same considerations apply to the data about the linguistic situation in the other countries, as the people speaking more than a language,

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[8] United States 2015 Census

[9] Canada 2016 Census

[10] Australia 2016 Census

[11] England and Wales 2011 Census

due to the influential role of the English language and globalization, are in constant growth.

1.3 Language Impairment detection in bilingual children

The main signs of Specific Language Impairment (often abbreviated as SLI) in a child that experts identify are:

- Difficulties with grammatical morphology and language productivity
- Difficulty with comprehension of language
- Difficulty learning, organizing and retrieving words and making lexical-semantic associations
- Difficulty producing specific sounds (which causes a difficulty to be understood by other people)[12]

As a few studies (such as Paradis et al, 2003) have demonstrated, the symptoms of SLI in a bilingual child are the same as those of a monolingual child and the clinical picture doesn't show noticeable differences.

If a child is suspected to have a language impairment, the difficulties will be present in all the languages they speak, so if there are concerns it's fundamental to get an accurate picture of their language development.

The phenomenon of code switching doesn't have to be considered an issue as mixing languages is a normal process and children will gradually learn to recognize the situations in which they can be understood in a specific language. As opportunities to code switch effectively increase, more complex code switching is possible.[13]

Since Bilingual children are learning two different vocabularies at the same time, they may take more time to master all the specialist vocabulary in a single language.

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[12] Peña E. D., Gutiérrez-Clellen V. F., Iglesias A., Goldstein B. A., Bedore L. M. (2018)

[13] Paradis J., Genesee F., & Crago M. (2011)

Therefore, a smaller vocabulary in a language is expected and is not an indicator of language impairment.[14]

It's also been showed that bilingual people experience 'nearly twice as many' tip-of-the-tongue (TOT) moments than their monolingual peers. These cognitive costs don't just affect the lexical level but also the syntactic one so the presence of this increased phenomenon can be considered normal to a certain extent.[15]

In the event that a child is being exposed to a new language when starting to attend school, their initial silence can be part of typical development in a new language environment, but a prolonged silence can become a concern and must be further inspected.[16]

Seeing that a bilingual brain works differently than a monolingual brain, language impairment will need specific assessment tools in order to be more efficiently detected. A problem that still persists nowadays is that there are many assessment tools available for monolingual children with good evidence about reliability and validity, but there is not the same offer for bilingual children as it's generally agreed that translated tests do not have the same psychometric properties as the original test. [17] Besides, children's language experience may vary greatly depending on many factors, so choosing a specific language in which they should be tested becomes a difficult task.

The need of more bilingual assessment instruments that take into consideration the specific markers of each language has encouraged more research in this field and has recently brought new progress in the identification of language impairment in bilingual children. However, more needs to be done.

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[14] Pearson, B.Z., Fernández, S.C. & Oller, D.K. (1993)

[15] Muñoz M. A. (2014)

[16] Roseberry-McKibbin C. and Brice, A. (2005)

[17] Arnold & Matus (2000), Bracken & Barona (1991), Peña (2007)

CHAPTER 2 – The BESA

2.1 Purposes and structure

The BESA (*Bilingual English-Spanish Assessment*) [18] offers a valid tool of assessment of speech and language ability in children with ages ranging from 4;0 to 6;11 speaking Spanish or English or both. Its main purpose is to identify any type of language impairment, but it's also been developed to monitor a child's progress in speech and language and to document their ability in different domains of language.

The test battery has been specifically developed to help clinicians differentiate typical speech language differences from true speech-language impairment, therefore it can also be considered a support for conducting research studies on bilingual children with and without language impairment.

The BESA consists of two questionnaires, one activity and three subtests for each language. With the questionnaires (BIOS and ITALK) the examiner collects information about the child's language exposure and possible concerns of the teachers and parents. The questionnaires are also used to determine the language of testing and choosing which tests to administer. [19] The activity aims to observe the child's use and understanding of the pragmatic language, whereas the three subtests evaluate the domains of Morphosyntax, Phonology and Semantics, separately for English and Spanish.

2.2 BIOS and ITALK

The Bilingual Input-Output Survey (BIOS) collects data about the child's year-to-year language experience and acquisition environment. Firstly, the parents are asked to

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[18] Bilingual English-Spanish Assessment (BESA), Peña E. D., Gutiérrez-Clellen V. F., Iglesias A., Goldstein B. A., Bedore L. M. (2018)

[19] The strongest language is chosen as the testing language. In cases of similar levels of dominance of English and Spanish, both languages can be tested.

give information about the child's language exposure history. They have to identify which language was used at home separating each year of life of the child and specifying when the child was attending school, preschool or daycare. In addition, both parents and teachers are asked to give details about the child's typical day, indicating which language the child hears and speaks the most on an hour-by-hour basis.[20] The parent survey (BIOS-Home form) takes around 10 to 15 minutes, while the teacher survey (BIOS-School form) can be completed in 5 to 10 minutes.

The Inventory to Assess Language Knowledge (ITALK) addresses relative use of the child's two languages and five areas of speech and language development (vocabulary, grammar, sentence production, comprehension and phonology). Like in the BIOS, both parents and teachers are interviewed, and the examiner collects the information in two different forms. The HOME form requires the parents to inform the examiner about their perceived level of performance of their child in vocabulary, speech proficiency, grammatical proficiency and the child's overall language performance level. The SCHOOL form instead, requires the teacher to give information about the child's vocabulary, sentence production and comprehension proficiency. Both parents and teachers are asked whether they have concerns about the child's way of talking. This piece of information will later be used to guide target areas of assessment.

The results obtained from the ITALK can also be used as a useful tool to interpret diagnostic results from the BESA or other similar speech and language tests. The inventory can be completed in around 10 minutes.

2.3 The Pragmatics Activity

After getting the results of the questionnaires, a pragmatics activity can optionally be carried out. During the activity, which is based on Fey's (1986) model of assertiveness and responsiveness, the child is asked to wrap a gift. In order to elicit different assertive

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[20] The possible answers are Spanish, English or both languages.

and responsive acts, obligatory contexts are set up and the child's responses are examined.[21]

The Pragmatics activity requires the aid of specific materials: one small box, wrapping paper cut to side, three short colored sample ribbons (red, blue, green) attached to an index card for the child to identify color by pointing, three long colored ribbons (red, blue, green) that will not quite fit around the box, two tape dispensers (one empty), one *mushki* (a nondescript hard object that will loosely fit in the box and has a bell or ringer to make noise) and optionally, one hand puppet.

All the materials must be kept in an opaque box so that the child cannot see them. The purpose of the test is to elicit different reactions of the child in front of various situations. As the test starts, the examiner tells the child that they are going to wrap a gift for someone named Diego. They start by showing the child a box with an object inside and shake it so that the child can hear it moving inside the box. They must follow the script of the chosen testing language's provided protocol and only small variations are permitted, if needed. The object inside the box is called with the nonexistent word "*mushki*". The child is expected to have a reaction when hearing the unknown word and may request clarification or confirmation. When explaining what a *mushki* is, the English protocol requires the examiner to say: "A *mushki*, see. We use *mushki* to *bingle* the waddles." The explanation in Spanish which is "Se usa el *mushki* para *poquilar* las *mungas*", uses different words that fit the language while maintaining the same intent. Using unknown or complicated words is done in order to elicit a response from the child and then see whether they are able to accomplish the required tasks.

During the test, the examiner asks the child different questions like what to do in order to do a specific action, asks them to make choices (for example choosing which colored ribbon they want to use for wrapping the gift) and produces contrast situations (like giving the child the wrong ribbon) that expect an answer from the child. The examiner talks to the child following the script and marks in the testing sheet which of

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[21] Bilingual English-Spanish Assessment (BESA) MANUAL, Peña E. D., Gutiérrez-Clellen V. F., Iglesias A., Goldstein B. A., Bedore L. M. (2018), page 6

the expected child's responses (either verbal or non-verbal) were elicited and whether the child could do the tasks. The examiner can choose to use a hand puppet if it helps making the child more comfortable and in that case, they follow a similar script that includes interactions with the puppet. Both the English and Spanish pragmatics activity have a total score of 11 points and the average time required to complete the activity ranges from 5 to 10 minutes.

2.4 The Subtests

The inventory of each language includes three subtests addressing the domains of Phonology, Morphosyntax and Semantics. If the child needs to be assessed in both English and Spanish it's recommended to give the two tests in different days, in order to avoid possible interferences between the two languages. It's also advised to administer the BESA in more than a testing session if the child has a limited attention span.

The phonology subtest is a single-word phonological assessment with the main purpose of identifying atypical phonological skills in children. The assessment includes two measures: the Spanish measure assesses production of 28 Spanish words, while the English measure assesses phonological production of 31 English words. The average time of duration is around 10 minutes.

The Morphosyntax subtest employs cloze and sentence repetition tasks to target grammatical morphemes and sentence structures. For each language, a grammatical cloze subscore, a sentence repetition subscore, and a total score that is a composite of those two subscores are derived. It takes approximately 15 minutes to administer in each language.

The Semantics subtest targets six tasks: analogies, characteristic properties, categorization, functions, linguistic concepts, and similarities and differences. The English Semantics subtest has a total of 25 items: 10 receptive and 15 expressive items, while the Spanish Semantics subtest also has 25 items: 12 receptive and 13 expressive items. The two subtests take approximately 15 minutes each.

CHAPTER 3 – PSYCHOMETRIC PROPERTIES OF THE BESA

3.1 Technical information

During the development of the BESA, a total of 1,112 children with and without Language Impairment have been tested by at least 100 assessors. The data has been collected in five states of the US with a high percentage of Latino children: California, Texas, Pennsylvania, Georgia and New Jersey.

During the preparations of the test, various Spanish-speaking countries have been considered and in order to select the best items that could work with all the variants of the language, many dialects have also been analyzed. The analyzed Spanish dialects have been Mexican, Puerto Rican, Tex-Mex, Dominican, Salvadorian, Argentine, Central American, Honduran, Nicaraguan, Castilian, Cuban, Costa Rican, Ecuadorian, Chicano, Chilean, Guatemalan and Panamanian. Similar analyses have been carried out for the English language, including General American English, Texas English, Philadelphia English, California English, African American English, Puerto Rico English and finally, Virgin Islands English.

During the examinations, data about age (4, 5 and 6 years old), geographic region, language exposure, dialect, sex, parental level of education (less than high school, some college, college graduate or graduate school) and economic status has been collected. The collected sample of distribution by age and geographic region has been put in comparison with the 2010 US Census data for the Hispanic population[22] showing a similar distribution across the three ages.

Following a previous work[23], five groups of children with different levels of language dominance (functional monolingual English, dominant monolingual English, balanced bilingual, bilingual dominant Spanish and functional monolingual Spanish) were observed. The performance of functional monolinguals that received very few inputs of either English or Spanish was comparable to the one of monolinguals.

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[22] Ennis, Ríos Vargas, Albert, 2011

[23] Bedore et al., 2012; Peña et al., 2011

Bilinguals with a dominance of English or Spanish showed a better performance in the language with more exposure (around 60%-80%), with a possibility of mixed dominance. Balanced bilingual children and children with mixed dominance were the ones to be recommended to be tested in both languages.

The sample of 6-year-old children showed a level of balanced bilingualism 3.80% higher than the 4-year-old children sample and other samples of older children with different language dominances scored higher too, when compared to younger children. It was therefore concluded that the level of bilingualism had more probabilities of being higher in older children.

3.2 Reliability

For the BESA to be confirmed a good test, a high consistency of the measures was expected to be obtained. The creators of the test relied on the four measures of validity proposed by Hutchinson (1996) to evaluate the functionality of the test, that is internal consistency, test-retest reliability and standard error of measure.

Regarding internal consistency, the calculation of the coefficient alpha and the split-half reliability test have been made. The coefficient alpha obtained from the test items brought good results in all grammatical domains. Being a result above 0.7 considered acceptable and a result above 0.9 excellent, all domains scored above 0.8 in all the age ranges and more than one subtest scored above 0.9. The results of the split-half reliability test, having most of the obtained coefficients ranging from over 0.85 and 0.95, showed a consistency with the coefficient alpha results.

As far as the measure of test-retest reliability is concerned, it was kept into account that a certain diversification of the results over longer periods of time due to the normal developmental changes of the child (more than one to four weeks) was expected. The data collected by Peña, Bedore, Gillam and Bohman (2006-2011) in a study that followed English-Spanish bilingual children from kindergarten to first grade confirmed the stability of the measure, displaying significant correlations between the results.

Ensuring that a child will have the same score when tested by a different examiner is an important step for proving the adequacy of a test. Therefore, scoring errors are a relevant element that must be reduced as much as possible. This measure, called interrater reliability, was observed in several studies conducted during the development of the BESA. The results confirmed a good reliability of the test, showing percentages of consistency from 95% upwards.

Finally, calculations to obtain the standard error of measurement (SEM) and the confidence interval have been made. The standard error of measure aimed to calculate an estimate of error of the child that didn't derive from their "lack of ability". The following formula was used for the calculation:

$$SEM = SD \sqrt{1- r}$$

SD referred to the standard deviation of the distribution and *r* represented the reliability coefficient.

The classical test theory of Lord & Novick (2008) has been considered during the analysis and as resumed in the BESA manual[24] it states that:

> « *there is always some error inherent in any measurement, and the observed score is the combination of the person's "true score" (a theoretical construct) and a measurement error.* »

Considering this theory, a confidence interval was calculated using the standard error of measure. The used formula was the following:

$$p\% \text{ Confidence Interval} = \text{Obtained Score} \pm z_p (SEM)$$

The *p* in the formula was the intended confidence interval level and *z* referred to the corresponding *z* value. The obtained results showed a confidence level of 90-95% with small SEM percentages, confirming once more the good reliability of the test.

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[24] Peña et al , *BESA Manual*, 2018, page 81

3.3 Validity

Another important aspect to establish was the validity, that focuses on confirming whether the test is appropriate for its intended use. In particular, the focus was on logical and empirical validity, recognized as two important types of validity by Hutchinson (1996).

Logical validity fixates itself on the purpose of the test and its construct. Therefore, the creators of the BESA analyzed the structure and purpose of the test. As it's already been described in chapter 2, the main purpose of the BESA is providing an appropriate assessment tool for English-Spanish bilingual children (from 4 through 6 years old) with the aim of identifying the presence of language or speaking impairments. The BESA primarily proposes itself to examine the child's language history and analyze their dominance levels. With an initial inspection conducted through the compilation of two questionnaires (BIOS and ITALK), the following and central part of the test aims to evaluate the child's abilities in the domains of Pragmatics, Phonology, Morphosyntax and Semantics.

Empirical validity is another needed element to check for the confirmation of the test's adequacy. This type of validity is related to item difficulty analysis and item discrimination.

Regarding item difficulty analysis, its use is examining the content of the test relative to children of different ages with and without impairment. The difficulty values range from 0 to 1, considering the items easy when obtaining values close to 1 and difficult when close to 0.[25] The purpose of this analysis is to exclude the items that are either too hard or too easy, and to only keep items with an appropriate level of difficulty.

The other measure of evaluation is item discrimination, that refers to the difference between the item difficulty values for children with and without any type of language impairment. The analysis aims to identify the more suited items for each subtest for the differentiation of children with and without language and/or speech

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[25] Allen & Yen, 1979; Friedenberg, 1995

impairments. Considering good discrimination values the ones from 0.30 and upwards[26], the items with lower values were ignored and not used for the test.

The creators also aimed to establish empirical evidence of Construct validity, which «evaluates the extent to which a measure represents the trait measured».[27] An investigation of the extent to which the subtests were sensitive to age (in months) was conducted and the scores were confirmed to increase with age. Furthermore, the typically developing sample was compared to the clinical sample, showing different performances as expected. To establish the extent to which «the different domains of the test were distinct or uniquely identified»[28], a factor analysis was carried out. The English and the Spanish protocol were examined separately, using the total scores of the subtests. The data collected confirmed that the items of each set loaded distinctly on separate factors.

The overall data collected to prove the validity of the test was inserted in various tables, showing a very good sampling adequacy and thus confirming the validity of the test.

3.4 Correlation with other measures

As the BESA Manual states[29]:

> « Examination of the relationship between other tests and subtests that are both similar and dissimilar provides evidence about the test construct. It is expected that tests that have similar constructs would be more highly correlated than tests that have dissimilar constructs. »

Following these concepts, the team that created the BESA compared the four subtests of Pragmatics, Phonology, Morphology and Semantics with other language

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[26] Friedenberg, 1995

[27] Anastasi & Urbina, 1997

[28] Peña et al, *BESA Manual*, 2018, page 88

[29] Peña et al, *BESA Manual*, 2018, page 93

sample measures for each language. Language sample is considered very useful when trying to develop a new assessment tool [30] and it's also an often-recommended procedure for the development of tests in a minority language.[31]

A small group of language tests[32] was analyzed under a National Institutes of Health grant for this purpose. Comparing to the Pragmatics Activity and the Phonology subtest, a stronger correlation of Semantics and Morphosyntax subtests with language sample measures and standardized tests was found.

Overall, the pattern of the results provided once again evidence of content and construct validity of the test battery.

3.5 Diagnostic accuracy

Another important factor to consider for the confirmation of the full adequacy of the test is the diagnostic accuracy, with a sensitivity and a specificity supposed to be around 80% or above that can guarantee the reliability of the results. The studies carried out during the development of the BESA identified a child with LI when they met at least three of the following criteria:

- More than 20% ungrammatical utterances in their better language on a conversational and narrative sample combined, mean length of utterance, or number of different words more than 1 standard deviation below the mean compared to same-age peers in the better language

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[30] Dunn, Flax, Slivinski & Aram, 1996; Heilmann et al., 2008; Heilmann, Nockerts & Miller, 2010; Hewitt, Hammer, Yont & Tomblin, 2005

[31] Guitiérrez-Clellen et al., 2000; Guitiérrez-Clellene & Simon-Cereijido, 2009; Patterson, 2000; Seymour, Bland-Stewart & Green, 1998; Washinghton, Kamhi & Pollock, 1996

[32] *Text of Language Development*, Newcomer & Hammill, 1991, 1997; *Test of Narrative Language*, Gillam & Pearson, 2004; *Expressive One-Word Picture Vocabulary Test*, Brownell, 2000; *Expressive One-Word Picture Vocabulary Test* – Spanish Bilingual Edition, Brownell 2001

- Parent report of concern about the child's language development as compared to similar-age peers
- Teacher concerns about language development as compared to similar age peers
- clinical observation indicating concerns about LI or clinical diagnosis by a bilingual speech language pathologist [33]

The data about the classification accuracy of the English and Spanish protocol were united, combining the stronger scores of the various domains in the same analysis. Combining Semantics and Morphosyntax was proven to demonstrate a very good classification accuracy.

Table 1: Classification accuracy of language index composite as a measure of language impairment
Extract from BESA Manual (2018), page 98

Age group	Sensitivity	Specificity	Positive likelihood ratio	Negative likelihood ratio
4	92.3	85.8	6.50	0.09
5	88.9	84.9	5.88	0.13
6	96.0	92.4	11.32	0.15

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3.6 Bias analysis

The last analysis that was carried out was aimed to reduce bias in developing the subtest items and thus avoiding performance differences as much as possible. Various variables were examined with more attention so that the testing items choice could be perfected. Sex was confirmed of not indicating any differences at all in all domains and in both English and Spanish. Differences by region had instead to be inspected more accurately as many children were proven to be influenced by dialects. African American English was recognized to be one of the causes that influenced many answers on the tested children, resulting in them scoring lower with the use of possessive 's, third

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[33] Peña et al, *BESA Manual*, 2018, page 96

person singular[34] and passives[35] . The analysis flagged 17% of the English Morphosyntax subtest items as potentially biased, acknowledging therefore the fact of child from Eastern United States could be more at risk of misclassification than the other children. The Eastern region showed indeed a false positive rate of 21.2%, while the other regions showed a false positive rate of 8.6%. The false negative rate was 10% for the Eastern region, compared to a false negative rate of 8.4% in the West and Central regions. Considering all the regions together, there was a false positive rate of 11.5% and a false negative rate of 8%. The Eastern region was analyzed separately and using a slow-cut score for Morphosyntax, sensitivity and specificity were risen to 86% and 82.2% respectively, obtaining classification rates at the same good level as the other regions.

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[34] Craig & Washinghton, 2005; Seymour & Roeper, 1999

[35] Pruitt, Oetting & Hegarty, 2011

CHAPTER 4 – ENGLISH PROTOCOL

4.1 Pragmatics Activity in English

When the questionnaires determine English as the testing language, the tests are administered following the English protocol. The testing session is usually introduced by the Pragmatics activity, where the administer interacts with the child while following a script. There are two possible ways of running the activity: the administer can talk directly to the child or use a puppet that will be called Timmy. The script used for this activity must be followed accurately. The provided lines of the script are reproduced below:[36]

- Let's wrap Diego's present. I bought Diego a great gift. It's in the box. (shake box). What do you think it is? / *Let's wrap Diego's present. This is my friend Timmy. He's going to help us wrap Diego's present. Sometimes he can be silly, but don't let him fool you. I bought Diego a great gift. It's in the box (Timmy shakes box.) Tell Timmy what you think it is.*

- It's a mushki. (mumbled)

- A munshki, see (open box.) We use munshki to bingle the waddles.

- Let's see. To wrap the present, we need wrapping paper, tape, and ribbon. (Do not take out materials.) What do I do next? / *Let's see. To wrap the present, we need wrapping paper, tape, and ribbon. (Do not take out materials.) Do you know how to wrap a present? Tell Timmy how to wrap a present.*

- *Tell Timmy what you think we should do. (Attempt to finish wrapping the gift.)*

- Oh, I forgot. It's in the bag. (Pull out the short red, green, and blue ribbons.) I have a red ribbon, a blue ribbon, and a green ribbon. Which one should we use? (Pause for reply.) Here's the __. (Give child the wrong ribbon.)

- Oh, I'm sorry. (Give child correct color ribbon and begin wrapping gift.) Please give me some tape. (Tape dispenser has no tape.) / *Oh, Timmy is being silly again. (Give child correct color ribbon. Child and puppet begin wrapping present.) Please give Timmy some tape. (Tape dispenser has no tape.)*

- I'd better get another one. (Get dispenser with tape.) Okay, now we have to put the ribbon on. Go ahead, put the ribbon on.

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[36] The lines for the interaction with the puppet are in *italic*

- (Give short ribbon.) / *(Puppet gives child too-short ribbon.)*

- What should we do? (Attempt to finish wrapping the gift.) / *Tell Timmy what you think we should do. (Attempt to finish wrapping the gift.)*

- Great idea. I think Diego is going to love this present. What do you think Diego is going to say? / *Great idea. I think Diego is going to love this present. Tell Timmy what you think Diego is going to say.*[37]

The activity purposely introduces unknown or complicated words to the child to elicit a response and verify whether they are able to accomplish the required tasks. The goal is to make the child interact with the administer (and optionally, with the puppet) in order to assess their pragmatic abilities.

4.2 English Phonology subtest

After the Pragmatics Activity, the three domains of Phonology, Morphology and Semantics are tested. The first subtest to be administered is the Phonology subtest. During the Phonology Subtest, the child is shown many different pictures and is asked to name them. When the child doesn't name a picture spontaneously, the administer may use elicitation cues or imitation in order to obtain the expected answer. The child's responses are then transcribed, coding each response as correct (1 point) or incorrect (0 points). For example, while indicating a picture of a pencil the administer may say: "What is this?". If the child responds correctly, they can praise them saying that they did a good job and then proceed with the following target word. If the child doesn't respond with the target answer, the administer may use an elicitation cue, like "It's used for writing" and if they still don't get the expected answer, they give the child a cloze sentence such as "The girl drew a picture with the.." and expect them to complete it. When the child doesn't name the item after the two cues, the administer has them repeat it, saying "It is a pencil. What is it?". The administer circles which cue the child responded to and also considers as correct some variants coming from Spanish-

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[37] Extract from Peña et al, 2018, *BESA*^{TM} English Protocol, Pragmatics Activity pages 2-3

influenced English and African American English, which are listed in the last column of the test sheet.

One of the first stimulus targets provided by the BESA is reproduced below:

Table 2: Extract from BESA English Phonology Subtest (2018), page 4

Stimulus Target	Whole-Word Production	Elicitation (circle) ("F1", "F2" = functional cues)	Syllable Initial	Syllable Final	Vowel	Dialectal Variation
E-P2 **thumb** [θʌm]	_____ Score: 0 1	▪ Spontaneous ▪ F1. It is on your hand ▪ F2. I have 4 fingers and one. . . ▪ Imitation	θ __	m __	ʌ__	[tʌm] SIE, AAE

If a deletion happens, the administer must write it down, indicating whether it came from a dialect feature or a true error. After a demonstration of two items is carried out, the child is tested on a total of 31 English target words.

➢ DEMOSTRATION ITEMS: pencil; telephone

➢ TEST ITEMS: book; thumb; ant; toast; computer; hand; car; pants; doctor; church; thermometer; ring; feather; shovel; bridge; umbrella; present; frog; stop; plate; train; screwdriver; grape; clown; queen; school; glass; helicopter; nose; wagon; lollipop.

A big variety in the testing vocabulary presented can be noticed, as the choice is done in order to rise the chances of finding any possible difficulty in the child's speaking ability.

Every page of the testing sheets has a space where the administer can write the subtotal score of the items presented in each page. When the test is over the administer sums up the subtotals and obtains the percentages of correctness. They calculate the total score and subsequently fill out a table that gathers all the scores of the subtest.

The table that resumes the scores of the English Phonology subtest is reproduced below:

Table 3: Extract from BESA English Phonology Subtest (2018), page 8

	Whole-Word Production	Syllable Initial	Syllable Final	Total Consonants	Total Vowels	Total Segments
Total Number of Errors						
Total Number Correct						
Total Possible	31	64	33	97	51	148
Percentage Correct						

4.3 English Morphosyntax subtest

The English Morphosyntax subtest includes two parts: close items and repetition items.

Part 1 is dedicated to Cloze Items and aims to elicit the possessive 's, the third person singular, the regular past, plural nouns, present/past auxiliary + progressive -ing, the copula, negatives and passives. In every subtest the examiner starts by using the demonstration items and after ensuring that the child understands the task, they can move on the test items. They incite the child to look and proceed to read the first sentence while pointing to the picture on the left. After that, the examiner points to the picture on the right and asks the corresponding cloze phrase. If the child does not answer, the examiner can repeat the stimulus cloze phrase once. Additional prompts include "you say it", "tell me", and "you are doing a great job". Responses different than the target must be transcribed too. Correct answers score 1 point while incorrect answers score 0 points. Only the targets in bold written in the test sheet need to be

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produced in order to mark as correct.[38] Every subsection of the cloze items test presents a small set of demonstration items, followed by three test items.

Part 2 of the English Morphosyntax contains Sentence Repetition Items. The examiner explains that they are going to say a sentence to the child and asks them to repeat it after they're done. To ensure the child's understanding of the task, test items are preceded by a set of small set of demonstration items. While testing with the demonstration item the examiner can help the child giving the answer but can't try to model the correct targets once the real testing has started. As it can be seen in the sentence reproduced below from the BESA subtest, the repetition accuracy is calculated by evaluating the repetition of specific segments of the sentences, that serve as the selected items.

Table 4: Extract from BESA English Morphosyntax Subtest (2018), page 17

Test Items		
Does she have the key to open the door? C: _____		
1. Does	1	0
2. she	1	0
3. have	1	0
4. to open	1	0

4.4 English Semantics subtest

Before starting to administer the items of the English semantics subtest, the examiner proceeds with a demonstration, where they follow the script which is reproduced below:

E-S Demo A: **We are going to look at some pictures and I will ask you questions about them. Are you ready? Let's begin.** (Turn to the picture and say) **These stories are about Diego and his family. Here's Diego (point to boy squatting down) and this is his family** (point to family). **Diego's sister is the girl wearing the blue dress. Can you find her?**

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[38] The manual of the BESA contains the list of all the acceptable substitutions.

E-S Demo B: **Here are some things you can do at a birthday party.** (Gesture to the different parts of the picture). **Shoe me the picture with the ball.**

E-S Demo C: **What are they doing here?** (point to the picture of two girls with bowls.) **I think they are eating ice cream.**

E-S Demo D: **Tell me what kinds of ice cream you like. Tell me as many as you can.** (Encourage the child to say as many as possible in about 60 seconds.)

E-S Demo E: **What is he doing in this picture?** (Point to the picture of the boy with presents.)

E-S Demo F: **Tell me what a present is for.**   ☐ **for birthdays or holidays** [acceptable to name the specific holiday]

E-S Demo G: **What colour are the packages?**   ☐ **purple and red**   ☐ **yellow bow** [39]

After the introduction the testing of the part begins. The examiner reads the prompts and checks every response of the child. The structure of the test sheet that is compiled by the administer is shown below:

Table 5: Extract from BESA English Semantics Subtest (2018), page

Prompts		Check child's response or write in answer. Bolded responses are correct. Circle OL if the child responds in Spanish.		Score			
E-S1:	INTRODUCTION: Now, listen to this story about Diego's party. "Diego's birthday is coming. He and his mom made invitations for Diego to take to school." Here are some invitations. Show me the two that go together. (SD)	☐ the two yellow invitations ☐ other combination		1	0		R
E-S2:	Where will Diego take the invitations?	to school/class friends at school girls and boys mailbox home other: _____	a la escuela amigos de la escuela a los niños y niñas correo casa otro: _____	1	0	OL	E

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[39] Demonstration part extracted from Peña et al, *BESA*, 2018, English Protocol, page 19

The Semantics subtests requires the child to answer a series of questions that make them reflect. They are asked accomplish tasks such as listing objects or animals, pointing out differences or describing objects.

CHAPTER 5 – SPANISH PROTOCOL

5.1 Pragmatics Activity in Spanish

When the results of the questionnaires determine Spanish as the strongest language, the testing is carried out following the Spanish Protocol. The procedures of testing in Spanish are the same as in English: every set of items is preceded by a couple of demonstration items, to ensure the child's understanding of each task. The Pragmatics activity introduces the testing session. The script used for this activity is the same as the English script. Since the test only aims to assess pragmatic abilities, the translation of this subtest was possible. The lines used for the activity are reproduced below:

- Yo le compré un regalo a Diego. Vamos a envolverlo. Le compré un regalo muy bueno. Está dentro de la caja. (Agite la caja) Adivina lo que es. / *Yo le compré un regalo a Diego de lo más bueno. Vamos a envolverlo. Este es mi amigo Timoteo. (El títere agita la caja.) Nos va a ayudar a envolver el regalo. A veces Timoteo es muy bobo. No dejes que te engañe. El regalo está dentro de la caja. (Agite la caja.) Adivina lo que es.*

- Es un mushki. (Agite la caja.)

- Un mushki. (Abra la caja.) ¿Ves? Se usa el mushki para poquilar las mungas.

- Vamos a ver. Para envolver el regalo tenemos que usar papel,tape, y chinta/listones de color. (No saque los materiales.) ¿Sabes cómo envolver un regalo? ¿Cuáles son los pasos a seguir? / *Vamos a ver. Para envolver el regalo tenemos que usar papel,tape, y cinta/listones de color. (No saque los materiales.) ¿Sabes cómo envolver un regalo? Dile a Timoteo cómo se hace.*

- El examinador comienza a envolver. Dame la cinta/listón. (Asegúrese de que la cinta/listón no esté en la mesa.)

- Se me olvidó. Está en mi bolsa. (Saque las cintas cortas - rojas, verde, azul.) Yo tengo cinta roja, verde y azul. ¿Cuál quieres usar? (No continúe hasta que el niño/niña responda.) Aquí está la cinta/listón. (Dale la cinta incorrecta.) / *Se me olvidó. Está en mi bolsa. (Saque las cintas cortas - rojas, verde, azul.) Tenemos cinta roja, verde y azul. Dile a Timoteo cuál quieres usar. (No continúe hasta que el niño/niña responda.)Aquí está la cinta/listón ___. (Haga que el títere le dé al niño/a la cinta incorrecta.)*

- Ay, lo siento. (Dele la que pidió y empiece a envolver el regalo.) Por favor, dame un pedacito de tape. (Ponga en la mesa el dispensador de tape vacío) / *Ay, lo siento. Timoteo es muy chistoso. (Dele al niño/a la chinta de color correcto. El niño/a y el títere*

comienzan a envolver el regalo.) Por favor, dale a Timoteo un pedacito de tape. (Ponga en la mesa el dispensador de tape vacío)

- Déjame buscar otro. (Agarre el dispensador con tape.) Okay, ahora tenemos que amarrar la caja con la cinta de color. (Guarde y esconda la cinta/el listón en la mano.) Amárralo con la cinta de color.

- (Dale la cinta corta.) / *El títere le da la cinta muy corta.*

- ¿Qué hacemos? (Intente terminar de envolver el regalo.) / *Dile a Timoteo lo que debemos hacer. (Intente terminar de envolver el regalo.)*

- Excelente idea. Yo creo que a Diego le va a encantar mi regalo. ¿Qué crees que Diego va a decir cuando yo se lo dé? / *Excelente idea. Yo creo que a Diego le va a encantar mi regalo. Dile a Timpoteo lo que crees que Diego va a decir cuando yo se lo dé.[40]*

5.2 Spanish Phonology subtest

The Spanish Phonology subtest is also comparable to the English Phonology subtest as the activity is the same. The child is shown many different pictures and is then asked to name them. During the demonstration, the administer is expected to use elicitation cues or imitation to obtain the expected answer when the child doesn't name a picture spontaneously. When the child understands the task, the testing is carried out. The child's responses are transcribed coding each response as correct (1 point) or incorrect (0 points).

The stimulus target words that the BESA test includes for the Spanish version of the Phonology subtest are 28, with the addition of 2 demonstration items that introduce the testing session.

➢ DEMONSTRATION ITEMS: botella (bottle); silla (chair)

➢ TEST ITEMS: señor (man); radio (radio); leche (milk); tren (train); negro (black); clavo (nail); bloque (block); bruja (witch); plato (plate); cruz (cross); frío (cold); flor (flower); galleta (coockie); elefante (elephant); bicicleta (bike); rompecabezas (jigsaw puzzle); arroz (rice); perro (dog); guitarra (guitar); rodilla (knee); bigote

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[40] Extract from Peña et al, 2018, *BESA*, Spanish Protocol, Pragmatics Activity pages 1-2

(mustache); aguja (needle); agua (water); mano (hand); árbol (tree); dientes (teeth); cama (bed); amarillo (yellow)

The choice of the vocabulary is varied like in the English subtest. The Spanish items are not the translation of the English items, as using specific words is not the point of the testing. The test sheet presents tables redacted like in the example below:

Table 6: Extract from BESA Spanish Phonology Subtest (2018), page 5

Stimulus Target	Whole-Word Production	Elicitation (circle) ("F1", "F2" = functional cues)	Syllable Initial	Syllable Final	Vowel	Dialectal Variation
E-P2 **negro** [boteja]	_____ Score: 0 1	▪ [Producción espontánea] ▪ F1. Un color (A colour) ▪ F2. Este es blanco y este es . . ▪ Imitación	n __ g __ r __		e __ o __	

The administer looks for deletions and when the child produces them, they indicate whether they came from a dialect feature or a true error. When the test is over the administer calculates the percentages of correctness and fills in the chart reproduced below:

Table 7: Extract from BESA Spanish Phonology Subtest (2018), page 8

	Whole-Word Production	Syllable Initial	Syllable Final	Total Consonants	Total Vowels	Total Segments
Total Number of Errors						
Total Number Correct						
Total Possible	28	70	12	82	70	152
Percentage Correct						

5.3 Spanish Morphosyntax subtest

Following the structure of the English Morphosyntax subtest, the Spanish Morphosyntax subtest is divided in two parts, with part 1 consisting of Cloze Items and part 2 containing Repetition items.

The first part of the subtest aims to elicit articles, present progressive, direct object clitics and the subjunctive.

Articles: 3 demonstrations items + 4 testing items

Present progressive: 4 demonstrations items + 3 testing items

Direct object clitics: 3 demonstrations items + 4 testing items

Subjunctive: 3 demonstrations items + 4 testing items

The section of the Present Progressive items is reproduced below.

Table 8: Extract from BESA Spanish Morphology Subtest (2018), page 10

Test Items: Present progressive		
S-M5. El niño va a leer un cuento. Lo haciendo ahora. Aquí, ¿qué está haciendo? El niño. . .	1	0
C: _____ (**está leyendo/lee** un/el cuento)		
E-M6. El papá, la mamá y Juan van a ir a comer hamburguesas. Lo están haciendo ahora. Aquí, ¿qué están haciendo? El papá, la mamá y Juan. . .	1	0
C: _____ (**están comiendo/comen** [unas] hamburguesas)		
E-M7. La mamá va a ver la televisión. Lo está haciendo ahora. Aquí, ¿qué está haciendo? La mamá . . .	1	0
C: _____ (**está viendo/mirando/mira/ve** [la] televisión)		

The second part of the Spanish Morphosyntax evaluates the repetition accuracy of a set of sentences. Comparably to the English version, the examiner explains that they are going to say a sentence to the child and asks them to repeat it after they're done. The 10 test items provided are preceded by one demonstration item. While testing with the demonstration item the examiner can help the child giving the answer but can't try to model the correct targets once the real testing has started.

An example of the test items presented during the testing is shown below.

Table 9: Extract from BESA Spanish Morphology Subtest (2018), page 13

Test Items		
La niña **que estaba jugando con la puerta** se lastimó la mano. C: _____		
1. que	1	0
2. estaba jugando	1	0
3. con	1	0
4. la puerta	1	0

5.4 Spanish Semantics subtest

Like the other subtests, the Spanish Semantics subtest starts with a demonstration:

Introducción: Te voy a contar unos cuentos. Vamos a mirar los dibujos y te voy a hacer unas preguntas mientras te cuento el cuento. ¿Estás listo/a?

S-S Demo A: Estos cuentos se tratan de Miguel (niño con camisa azul, boy in blue shirt)**, María** (niña con vestido azul, girl in blue dress)**, Ana** (niña con vestido rosa, girl in pink dress) **y Diego** (niño hincado, boy who us kneeling). **Aquí están sus familias. Vamos a empezar con "El cuento de Miguel y su mamá".**

S-S Demo B: "**¡Miguel! Gritó mamá, ¡ven aquí y recoge tus juguetes! Enséñame todos los juguetes.**

> **Señala los sigientes dibujos:**
> ☐ **Carro**
> ☐ **Bate de béisbol**
> ☐ **Pelota**
> ☐ **aspiradora**

S-S Demo C: Y esto, ¿qué es? (Señale la aspiradora; si no sabe dígale, **Es una aspiradora.** Point to vacuum, if child doesn't know, say, **Es una aspiradora**)

S-S Demo D: **¿Cómo es la aspiradora?** (si el niño/niña no responde, hágale las sigientes preguntas y provea comentarios. If child does not respond, ask the following questions and provide feedback.)

¿De qué color es?	☐ **azul y roja**
¿Qué ruido (sonido) hace?	☐ **hace ruido**
¿De que tamaño es?	☐ **es mediana**

S-S Demo E: **¿Qué es esto?** (Apunte a las tijeras; ayude al niño/niña o haga que el niño/niña repita si no responde. Point to the scissors; cue the child or have the child repeat if no response.)

E-S Demo F: **¿Para qué se usan las tijeras?** (Ayude al niño/niña o haga que el niño/niña repita si no responde. Cue the child or have child repeat if no response.)

☐ **para cortar papel** [41]

After the introduction the testing begins. The examiner reads the prompts and checks every response or write in answer of the child. The total test items are 29.

Table 10: Extract from the BESA Spanish Semantics Subtest (2018), page 16

Prompts		Check child's response or write in answer. **Bolded** responses are correct.	Score			
E-S1:	**INTRODUCCIÓN: Vamos a escuchar unos cuentos sobre un día de campo. Mamá estaba en la cocina. Quería limpia la cocina antes de salir.**					
E-S2:	**Enseñame todas las cosas que se usan para limpiar. (CT)** (**3 sin errores** son necesarios para calificar el elemento correcto. **3 with no errors** are required to score the item correct.	☐ escoba ☐ aspiradora ☐ jabón ☐ balde/cubeta	1	0		R

The questions used for this subtest follow the same pattern used in the English protocol. Part of the questions used in the English Semantics subtest are reproduced in Spanish, some are different. The activities are the same: the child is asked to do activities such as pinpointing details of pictures, listing objects and explaining situations.

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[41] Demonstration part extracted from *BESA SPANISH PROTOCOL*, 2018, page 16

CHAPTER 6 – Adaptation of the Spanish Morphosyntax Subtest

6.0 Introduction to the adaptation

The aim of this chapter and the central element of this thesis is to propose my own adaptation of a subtest of the BESA battery. While picturing a possible administration of the test to Italian bilingual children, I selected the Spanish Morphosyntax subtest and adapted it into Italian.

As it's been explained in the previous chapters, the Spanish Morphosyntax subtest is divided in two parts that test two different kind of items: Cloze Items and Repetition Items. The Spanish Cloze Items section aims to elicit articles, present progressive tenses, direct object clitics and subjunctives whereas the second part evaluates the repetition accuracy of a group of sentences, marking specific words or syntagmas as items.

Considering that Italian and Spanish are two romance languages that have an approximate lexical similarity of at least 80% and share the same sentence structure (SVO structure, i.e. subject-verb-object structure), while also verifying that the tested structures in the subtest were compatible with Italian, I concluded that keeping the same tested grammatical structures in the cloze section was possible. The sentences used in the Spanish version of the Cloze items section have been translated into Italian, while considering the properties and purposes of the subtest and making modifications accordingly. This resulted in a translation that wasn't totally word-by-word but acknowledged the differences between the languages. The adapted Cloze Items section can be paired with the illustrations used of the Spanish test.

The sentences of the Repetition Items section were adapted with a similar approach. The sentences that had an exact correspondence in Italian have been translated, while sentences with slightly different structures have been modified in order to maintain the testing qualities. A few sentences that resulted inadequate in the target language with a simple translation, were entirely replaced by other similar sentences, while trying to maintain the same difficulty and testing quality of the source sentence.

Further commentary about the choices of adaptation of the subtest will be presented in more detail in the next chapter.

THE ADAPTATION

6.1 Part 1: Cloze Items

ISTRUZIONI: Usare le domande della simulazione per assicurarsi che il bambino comprenda il compito prima di procedere con le domande del test. Iniziare dicendo: "**Guarda qui…**" Quindi leggere la prima frase ed indicare il disegno a sinistra. Dopodiché indicare il disegno a destra e fare la domanda corrispondente. Se il bambino non risponde, si può ripetere una volta quanto appena detto. Si può anche cercare di sollecitarlo dicendo: "**Dimmelo tu**", **"Dimmi"** o "**Continua, stai facendo un ottimo lavoro"**. (*Se risponde correttamente il punteggio da assegnare è 1, mentre se risponde in modo non corretto è 0. Se il bambino non risponde con l'elemento target segnare la risposta. Solo gli elementi target segnati in grassetto vanno considerati corretti. Consultare il manuale per vedere le sostituzioni semantiche accettabili.)*

INSTRUCTIONS: Use the demo items to ensure that the child understands the task before moving on to the test items. Say, **Guarda qui**. . . Then read the first sentence while pointing the picture on the left. Then point to the picture on the right and ask the corresponding cloze phrase. If the child does not answer, the examiner can repeat the stimulus cloze phrase once. Additional prompts include: **Dimmelo tu, dimmi**; and **Continua, stai facendo un ottimo lavoro** (Score 1 if correct and 0 if incorrect. Write in the child's response if they produce something other than the target. Only the target in bold needs to be produced in order to be marked as correct. See the manual for acceptable semantic substitutions.)

Se il bambino conta gli oggetti, rispondere dicendo: "**Non dirmi quanti, concentrati su quello che ti dico**" e ripetere la prima frase.

Demonstration Items: Articles

S-M Demo A: Dire: "**Guarda qui**". Leggere la prima frase ed indicare il disegno a sinistra. **Maria ha un fiore**. Indicare il disegno a destra e chiedere: "**E qui, che cos'ha Maria?**". Aspettare che il bambino risponda.

C: _____ (**dei/i** fiori)

Poi dire: "**Molto bene!**"

Se il bambino non risponde, ripetere la prima frase e dire: "**Concentrati su quello che ti dico... Maria... ha dei fiori. Ora dillo tu. Maria... ha...**"

C: _____ (**dei/i** fiori) "Maria ha **tre** fiori" (non corretto)

Si noti che il bambino deve utilizzare esclusivamente l'articolo rappresentato in grassetto, ad esempio **dei.**

Ripetere il processo con il secondo oggetto se necessario. Suggerire la risposta al bambino nel caso non riesca a dare la risposta appropriata durante la fase di simulazione. Non utilizzare gli articoli target una volta iniziato il test.

S-M Demo B: Il gatto ha fatto cadere i piatti per terra. E qui, cosa ha fatto cadere il gatto? Il gatto ha fatto cadere…

**C:** _____ (**delle/le** mele)
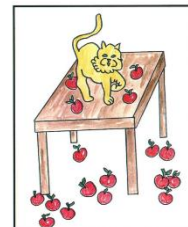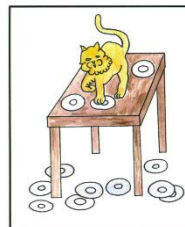
S-M Demo A: Items 1-4, BESA™   S-M Demo B: Items 1-4, BESA™

| Test Items: Articles		
S-M1. I bambini hanno delle macchinine. E qui i bambini cosa hanno? I bambini hanno…	1	0
C: _____ (**una/la** macchinina)		
S-M2. Il cagnolino sta mordendo le scarpe. E qui il cagnolino cosa sta mordendo?	1	0
C: _____ (**una/la** scarpa)		
S-M3. I panini sono sul tavolo. E qui cosa c'è sul tavolo?	1	0
C: _____ (**un/il** panino)		
S-M4. Maria e Giovanni sono addormentati. E qui, chi sono addormentati?	1	0
C: _____ (**dei/i** gatti)		

SUBTOTAL _____
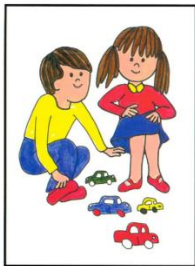
S-M1, BESA™
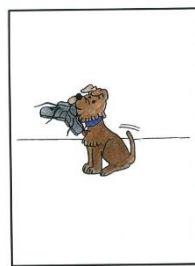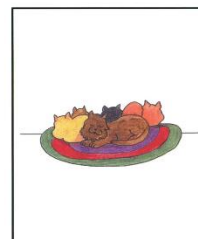

S-M2, BESA™
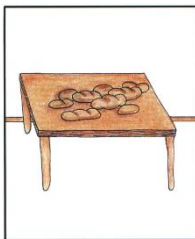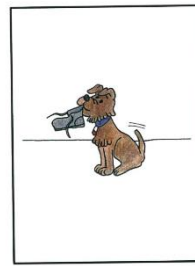
S-M3, BESA™
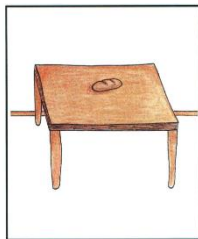
S-M4, BESA™

PRESENT PROGGRESSIVE (GERUNDIO E PRESENTE)

Demonstration Items: Present Progressive

S-M Demo C: Dire: "**Guarda qui**". Leggere la prima frase ed indicare il disegno a sinistra: "**I bambini stanno per nuotare. Adesso lo stanno facendo. Qui che cosa stanno facendo? I bambini...**" Indicare il disegno a destra e aspettare che il bambino risponda.

C: _____ (**stanno nuotando/nuotano**)

Poi dire: "**Molto bene!**"

Se il bambino non risponde, ripetere la prima frase e dire: "**I bambini stanno per nuotare. Adesso lo stanno facendo. Qui cosa stanno facendo? I bambini stanno nuotando... Ora dillo tu. I bambini…**"

C: _____ (**stanno nuotando/nuotano**)

Poi dire: "**Molto bene! Facciamone un altro**" e procedere con la domanda successiva.

Se il bambino risponde con un verbo, anche se coniugato correttamente, (per esempio _stanno facendo quello_), dire: "**Dimmi cosa fanno. Concentrati su quello che ti dico e ripeti la prima frase. I bambini stanno nuotando. Ora dillo tu**".

C: _____ (**stanno nuotando/nuotano**) _stanno facendo quello_ (non corretto) o _fanno quello_ (non corretto)

Se necessario, ripetere lo stesso procedimento con la domanda successiva. Se il bambino non risponde con la parola o frase corretta, suggerire la risposta. Una volta iniziato il test non fornire nessun tipo di suggerimento che non sia previsto nel libro degli stimoli.

S-M Demo D: Maria ed il suo cane stanno per passeggiare. Lo stanno facendo ora. Qui cosa stanno facendo? Maria ed il suo cane…

**C:** _____ (**stanno passeggiando/passeggiano**)

S-M Demo C: Items 5-7, BESA^{TM}
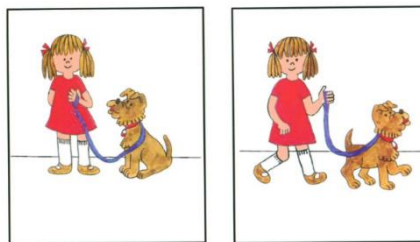
S-M Demo C: Items 5-7, BESA^{TM}

| Test Items: Present Progressive		
S-M5. Il bambino sta per leggere una favola. Adesso lo sta facendo. Qui cosa sta facendo? Il bambino … **C:** _____ (**sta leggendo/legge** una favola)	1	0
S-M6. Il papà, la mamma e Giovanni stanno per mangiare un panino. Lo stanno facendo ora. Qui cosa stanno facendo? Il papà, la mamma e Giovanni… **C:** _____ (**stanno mangiando/mangiano** dei panini)	1	0
S-M7. La mamma sta per guardare la televisione. Adesso lo sta facendo. Qui cosa sta facendo? La mamma… **C:** _____ (**sta vedendo/guardando** la televisione)	1	0

SUBTOTAL _____
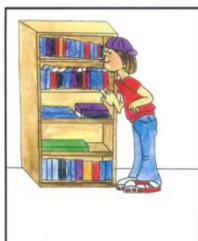
S-M5, BESA™

S-M6, BESA™
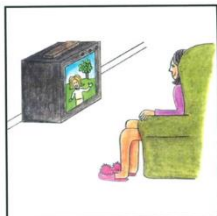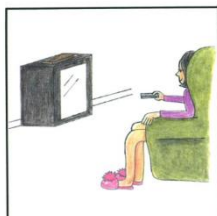
S-M7, BESA™

DIRECT OBJECT CLITICS (CLITICI DI COMPLEMENTO OGGETTO)

Demonstration Items: Direct Object Clitics

S-M Demo E: Dire: "**Guarda qui**". Leggere la prima frase ed indicare il disegno a sinistra: "**La mamma sta per sgridare la bambina.**" Indicare il disegno a destra e dire: "**E qui cosa sta facendo la mamma con lei?**". Aspettare che il bambino risponda.

C: _____ (**la** sgrida/ **la** sta sgridando)

Poi dire: "**Molto bene!**"

Se il bambino non risponde, ripetere la prima frase e dire: "**Concentrati su quello che ti dico… La… sgrida. Ora dillo tu**".

Poi dire: "**Molto bene! Facciamone un altro**" e procedere con la domanda successiva. Se il bambino risponde con una frase invece che usare il clitico, riutilizzare le frasi della simulazione. Il bambino deve capire che deve usare il clitico.

Si noti che i suggerimenti vanno utilizzati con minor frequenza nella seconda frase della simulazione, per ridurre la ripetizione eccessiva e focalizzare l'attenzione del bambino nel compito.

Non è necessario che il bambino utilizzi l'elemento target previsto durante la simulazione, bensì che capisca quello che deve fare. Se non riproduce l'elemento target ma risponde correttamente, suggerire la risposta e procedere con la domanda successiva.

S-M Demo F: Qui il papà sta per abbracciare i bambini. E qui cosa fa il papà con i bambini?

C: _____ (**li** abbraccia/**li** sta abbracciando)


S-M Demo E: Items 8-11, BESA™   S-M Demo E: Items 8-11, BESA™

| Test Items: Direct Object Clitics		
S-M8. I bambini stanno per aprire i regali. E qui, cosa fanno i bambini con i regali?	1	0
C: _____ (l**i** aprono/**li** stanno aprendo)		
S-M9. Il bambino sta per prendere le mele. Qui cosa fa il bambino con le mele?	1	0
C: _____ (**le** prende/**le** sta prendendo)		
S-M10. Il cane sta per sporcare le bambine. E qui cosa fa il cane alle bambine?	1	0
C: _____ (**le** sporca/**le** sta sporcando)		
S-M11. Giovanni sta per spaventare le bambine. E qui cosa sta facendo Giovanni alle bambine?	1	0
C: _____ (**le** spaventa/**le** sta spaventando)		

SUBTOTAL _____
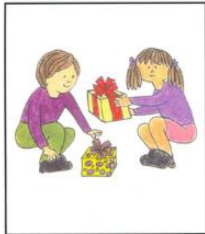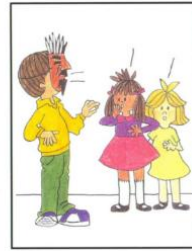

S-M8, BESA™
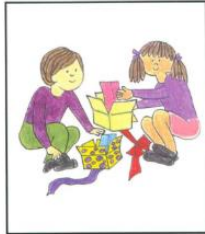
S-M9, BESA™
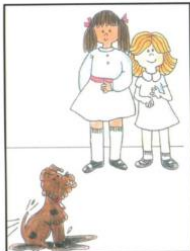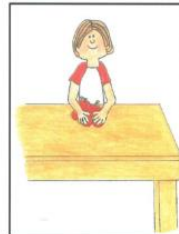
S-M10, BESA™
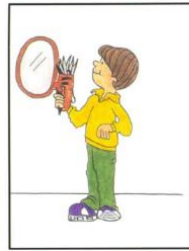
S-M11, BESA™

SUBJUNCTIVE (CONGIUNTIVO)

Demonstration Items: Subjunctive

S-M Demo A: Dire, **Guarda qui.** Leggere la prima frase ed indicare il disegno a sinistra. **La mamma vuole che entrino**. Indicare il disegno a destra e chiedere **E qui, cosa vuole? La mamma vuole che…** Aspettare che il bambino risponda.

C: _____ (vuole che… **escano**)

Poi dica, **Molto bene!**

Se il bambino non risponde, ripetere la prima frase e dire, **Concentrati su quello che ti dico... La mamma... vuole… che… escano Ora dillo tu.** Aspettare che il bambino ripeta.

C: _____ (vuole che… **escano**)

Poi dire: "**Molto bene! Facciamone un'altra**" e procedere con la domanda successiva.

Alcuni dei suggerimenti dovranno essere utilizzati con minor frequenza nella seconda domanda della simulazione, al fine di ridurre la ripetizione eccessiva e focalizzare l'attenzione del bambino nel compito.

Non è necessario che il bambino utilizzi l'elemento target previsto durante la simulazione, bensì che capisca quello che deve fare. Se non riproduce l'elemento target ma risponde correttamente, suggerire la risposta e procedere con la domanda successiva.

S-M Demo H: La mamma vuole che i bambini bevano il latte. E qui cosa vuole la mamma? La mamma vuole che…

C: _____ (vuole che… **mangino** l'insalata)
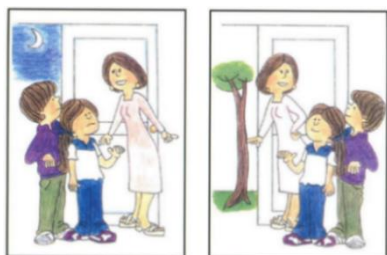
S-M Demo G: Items 12-15, BESA™

S-M Demo G: Items 12-15, BESA™

| Test Items: Subjunctive		
S-M12. La mamma vuole che si pettini. E qui cosa vuole la mamma? La mamma… C: _____ (vuole che **si lavi** i denti)	1	0
S-M13. Giovanni vuole che scenda dalla macchina. E qui cosa vuole Giovanni? Giovanni… C: _____ (vuole che gli **dia** la scarpa/gliela **dia**)	1	0
S-M14. La mamma vuole che preparino la tavola. E qui cosa vuole la mamma? La mamma… C: _____ (vuole che **mangino** la minestra)	1	0
S-M15. La mamma vuole che si mettano il pigiama. E qui cosa vuole la mamma? La mamma… C: _____ (vuole che **vadano a letto/si addormentino**)	1	0

SUBTOTAL _____
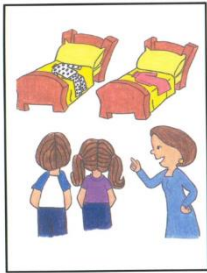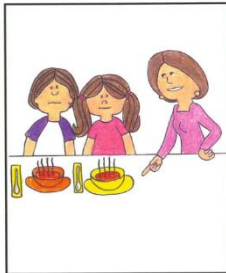
RAW SCORE, CLOZE _____/15

S-M12, BESA™
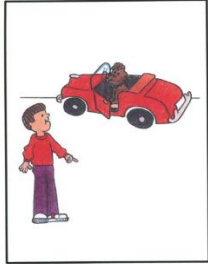
S-M13, BESA™
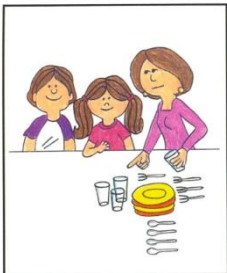
S-M14, BESA™

S-M14, BESA™

6.2 Part 2: Repetition Items

ISTRUZIONI: Dire: "**Dirò una frase. Dopo che avrò finito, tu copiami. Dì esattamente quello che dico, ma non parlare prima che io abbia finito. Sei pronto? Ascolta.**" Leggere una frase alla volta. Se necessario, segnalare al bambino quando arriva il suo turno per ripetere la frase. Non sono permesse ripetizioni a meno che non avvenga un'interruzione esterna.

Non vengono utilizzate immagini per questa parte del test.

INSTRUCTIONS: Say, **Dirò una frase. Dopo che avrò finito, tu copiami. Dì esattamente quello che dico, ma non parlare prima che io abbia finito. Sei pronto? Ascolta**. Read one sentence at a time. If necessary, you may point to the child when it is their turn to say each target sentence. No repetitions are allowed unless there is an interruption.

No stimuli are used for these items.

Demonstration Item

Dire: "**Ascolta, dirò una frase. Quando ho finito, tu mi copi. Dì esattamente quello che dico, ma non parlare prima che io abbia finito. Sei pronto? Ascolta…**". Leggere la frase della simulazione: "**Il cane ha fame**".

C: _____ (**Il cane ha fame.**)

Se il bambino ripete la frase parola per parola, dire: "**Molto bene!**" e continuare con la seconda frase della simulazione.

Se il bambino non ripete la frase correttamente, non risponde entro 10 secondi o chiede di ripetere, dire: "**Proviamo di nuovo. Ascolta con molta attenzione e dì esattamente quello che dico io. Il cane ha fame**". Se il bambino non risponde, dire: "**Tu devi dire: Il cane ha fame**". È permessa una seconda ripetizione. Dopodiché continuare con la seconda frase della simulazione.

Procedere con il test solo quando il bambino ha capito le modalità della prova. Se il bambino non capisce cosa deve fare, battere le dita sopra il tavolo o applaudire a ritmo delle parole per segnalare quando deve ripetere la frase. Durante la simulazione si può stabilire una connessione tra il movimento delle dita sopra il tavolo e la ripetizione della frase: battere le dita sopra il tavolo o applaudire a ritmo delle parole della frase può aiutare il bambino a capire ogni singola parola. Smettere di dare suggerimenti al bambino quando dimostra di aver capito il compito.

Demonstration Item

Say, **Ascolta, dirò una frase. Quando ho finito, tu mi copi. Dì esattamente quello che dico, ma non parlare prima che io abbia finito. Sei pronto? Ascolta**… Read the Demonstration Item: **Il cane ha fame**. If the child repeats the demonstration item verbatim, say: **Molto bene!** Proceed to the following item.

If the child does not repeat the item accurately, does not respond within 10 seconds or requests repetition, say: **Proviamo di nuovo. Ascolta con molta attenzione e dì esattamente quello che dico io. Il cane ha fame**. The goal of this task is for the child to repeat sentences verbatim, word by word. The target words and phrases are in **bold** on the Protocol sheet. Not every word in the sentence is used for scoring. However, the child must be encouraged to repeat the full sentence without substitutions or comments. Sometimes, tapping on the table will help to signal that it is time for the child to repeat the sentence.

Test Items
La bambina che stava giocando con la palla, si è fatta male.   C: _____   1. che   2. stava giocando   3. con   4. la palla
Il bambino ha preso il libro che era sopra il tavolo.   C: _____   5. ha preso   6. il libro   7. che   8. sopra   9. il tavolo
Il gatto non voleva mangiare anche se aveva fame.   C: _____   10. voleva   11. mangiare   12. aveva fame

La bambina era triste perché le si era rotta la bambola.

C: _____

13. era triste

14. perché

15. le

16. si

Se avessi soldi mi comprerei un gelato.

C: _____

17. se

18. avessi soldi

19. comprerei

20. un gelato

La signora ha chiamato i pompieri quando ha visto che usciva fumo dalla macchina.

C: _____

21. la signora

22. quando

23. usciva fumo

Prima di uscire di casa il signore si guardava allo specchio.

C: _____

24. prima di

25. uscire

26. si guardava

27. allo specchio

Se i bambini avessero chiamato al telefono, la mamma sarebbe andata a prenderli.

C: _____

28. se

29. i bambini

30. avessero chiamato

31. al telefono
Quando è tornata da scuola, la mamma le ha chiesto se avesse fame. C: _____ 32. quando 33. da scuola 34. se avesse
I bambini dovevano aiutare in cucina prima di mettersi a guardare la televisione. C: _____ 35. i bambini 36. dovevano 37. la cucina

SUBTOTAL _____

RAW SCORE; SENTENCE REPETITION: _____ /37

CHAPTER 7 – Commentary of the Adaptation

7.1 Theoretical considerations

As scholars such as Paradis and Libben (1987) have concluded, direct or literal translations of linguistic assessment tools are not considered appropriate. Adapting a subtest is not just a simple process of translating sentences into another language, but rather a reproduction of the testing intentions and contents, with changes that suit the target language and the culture of its speakers. Therefore, in order to obtain a good assessment tool in the target language, linguistic and cultural differences must be taken into account.[42] This is done with the main purpose of maintaining the psychometric properties of the source test as much as possible, while also considering the linguistic properties of the target language.

A test adaptation is not an easy task as validity and reliability can't be easily transferred across different languages.[43] Poor test translation is a common cause of the lack of validity of the translated test,[44] therefore maintaining the same psychological effect between the multilingual versions is an essential element.[45]

Errors during the translation process or inappropriate use of wording can be the cause of linguistic biases, which cause a reduced linguistic equivalence of the test.[46] Other types of bias can derive from adaptation mistakes and miscalculations: psychological biases can result from a different level of psychological impact of the

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[42] Edwards and Bastiaanse, 2007

[43] Geisinger, 1994

[44] Hambleton, 2005

[45] Daouk-Öyry, Zeinoun, 2016

[46] van de Vijver & Jeanry, 2004

items,[47] while conceptual biases (or cultural biases) concern the relevance of the item content to the target culture.[48]

7.2 Critical commentary

In this section I will discuss and analyze the adaptation process of the Spanish Morphosyntax Subtest into Italian.

The first step was translating the instructions of the subtest. It was done comparing both the English and Spanish instructions, that had the same content but were sometimes slightly different in the explanations. Basing on the two versions I tried to create clear instructions in the target language.

I subsequently analyzed the first part of the Morphosyntax subtest, that aimed to test cloze items. Considering the vast differences between English and Spanish – being a Germanic and a Romance language – it was a natural choice for the creators of the BESA to establish that the Spanish protocol would require the testing of different grammatical structures. The English Cloze Items section aims to elicit the possessive 's, the third person singular, the regular past (past simple), plural nouns, present/past auxiliary + progressive -ing, the copula, negatives and passives; with a total of nine item categories with three items each, reaching 24 tested items overall. The lack of correspondence between English and Spanish has brought to the choice of a completely different set of items, aimed to elicit articles, present progressive tenses, direct object clitics and subjunctives. With four items each – made exception for the Present Progressive Items section with three – the Spanish correspondent subtests reach a total of 15 items. Differently than English, the Italian language shares a considerable lexical and structural similarity with Spanish, so I considered the tested grammatical structures adequate for the Italian use, too. As the main purpose of the adaptation is not to simply

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[47] Cheung, 2004

[48] Byrne & Watkins, 2003; Hambleton, Merenda & Spielberger, 2005; van de Vijver & Hambleton, 1996; van de Vijver & Tanzer, 1997

translate but to create a version of the chosen subtest that is suitable for Italian bilingual children to be tested in, I adjusted the phrases and items in the best suitable way for the testing use. Guaranteeing item adequacy in the target culture is an important aspect of test adaptation, so I paid special attention to the wording and phrasing during the translation.

The first Spanish item group elicits the articles **el/un, el/un, el/un** and **los/unos** (with **unas/la**s**, unas/las** as demonstration items). The items in the corresponding Italian version are **una/la**, **una/la**, **un/il** and **dei/i** (with **dei/i**, **dei/i** as demonstration items) . Spanish articles have an exact correspondence in Italian in the selected contests of the test, so no major problems rose during the adaptation of this part.

The following items set didn't generate specific issues either. Focused on the elicitation of the present progressive, (i.e. requiring the child to indicate an ongoing action in the present), the correct targets were the present tense and the periphrastic construction **estar + infinite** in Spanish, corresponding to **stare + infinite** in Italian.

In the testing of Direct Object Clitics, Spanish and Italian's accepted answers presented a difference. The Spanish protocol admits three possible answers. For example, in the question "Los niños abren los regalos. Y aquí, ¿qué hacen los niños con los regalos?" (The kids open the presents. And here? What are the kids doing with the presents?) three answers are deemed as correct: "*los abren*", "*los están abriendo*" and "*están abriéndolos*". The first and second answer (*they open **them**, they are opening **them***) have an exact correspondence in Italian. However, the third accepted answer contains a structure where the clitic is attached to the verb form. Although Italian does accept this grammatical construction and therefore the word "aprendo**li**" (*opening-**them***) does indeed exist, it is used in limited contexts and is not applicable in the context used in the subtest. Consequently, the number of possible answers in the Italian subtest has been reduced to two, leading to a likely reduction of the subtest's properties.

The following adapted item category consisted of subjunctive items. The Spanish items are **se lave**, **dé**, **coman/tomen** and **se acuesten/vayan** (a dormir) with **salgan** and **coman** as demostration items. Two of the questions accepted the use of two different

verbs to describe the picture connected to the question. Among the three test items there was an imperfect verb: the verb "dar" (to give).

La mamá quiere que pongan la mesa. Y aquí, ¿qué quiere la mamá? La mamá...

C: _____ (quiere que le **dé** el zapato/se lo **dé**)

The Italian translation "dare" is also irregular (with the expected correct answers: vuole che gli **dia** la scarpa/gliela **dia**), so the difficulty of the sentences was mantained similar, with three regular verbs and one irregular verb as tested items. The Italian items were **si lavi**, **dia**, **mangino**, **vadano** (a letto) /si addormentino, with **escano** and **mangino** as demonstration items.

The complete version of the Italian adaptation of the first part of the subtest managed to maintain the same contents used in the Spanish version, allowing the compatibility of the subtests with the images used in the Spanish protocol. The table below displays the items used in the first part of the Spanish subtest, putting them in comparison with the items I selected for the Italian adaptation.

Table 11: Comparison between Italian and Spanish Items in the Cloze Items subtest

Categories	Spanish Subtest	Italian Subtest
Articles	**Demo:** [unas/las], [unas/las] **Target:** [el/un]$_1$, [el/un]$_2$, [el/un]$_3$, [los/unos]$_4$	**Demo:** [delle/le], [dei/i] **Target:** [una/la]$_1$, [una/la]$_2$, [un/il]$_3$, [dei/i]$_4$
Present Progressive	**Demo:** [están nadando/nadan], [están caminando/caminan] **Target:** [está leyendo/lee]$_5$, [están comiendo/comen]$_6$, [está viendo/mirando]$_7$	**Demo:** [stanno nuotando/nuotano], [stanno passeggiando/passeggiano] **Target:** [sta leggendo/legge]$_5$, stanno mangiando/mangiano$_6$, [sta vedendo/guardando] la televisione / [guarda/vede]$_7$
Direct Object Clitics	**Demo:** [la], [los] **Target:** [los]$_8$, [las]$_9$, [las]$_{10}$, [las]$_{11}$	**Demo:** [la], [li] **Target:** [li]$_8$, [le]$_9$, [le]$_{10}$, [le]$_{11}$
Subjunctive	**Demo:** [salgan], [coman] **Target:** [se lave]$_{12}$, [dé]$_{13}$, [coman/tomen]$_{14}$, [se acuesten/vayan]$_{15}$ a dormir/a la cama	**Demo:** [escano], [mangino] **Target:** [si lavi]$_{12}$, [dia]$_{13}$, [mangino]$_{14}$, [vadano] a letto / [si addormentino]$_{15}$

As far as the second part of the Morphosyntax subtest is concerned, I chose a similar adaptation approach. The Italian Morphosyntax subtest maintained the same number of tested sentence and items. However, since the sentences used in the Repetition Items section are not connected to a picture, the main focus was on maintaining the same sentence length, word number and item difficulty, rather than reproducing the same contents. Considering the similarities of Italian and Spanish, most sentences were translated, taking specific attention in the vocabulary choice. The Spanish protocol required the analysis of many variants of the language to choose the perfect items, given the fact that eighteen countries – with an estimate number of 437 million people – have Spanish as its official language. Grammatical structures or terms needed to be compared to many varieties in order to find the more suited terms and structures to employ. Since the Italian language has a smaller number of speakers – approximately 63 million people – the choice of the terms encountered less hardships. I considered the standard Italian and chose lexicon that is used by all Italian speakers. The verbal tense of *pretérito indefinido* in the Spanish sentences, was replaced by the use of the *passato prossimo*. Since the tense of the *passato remoto* doesn't have an auxiliary like the passato prossimo does, it would have appeared to be more similar to the *pretérito indefinido*. Yet, considering all speakers of Italy, the *passato remoto* tense would have been too difficult an item for children from the Northern part of Italy, who don't use such tense in normal conversations. The table reproduced in the next page puts in comparison the tested sentences of Italian and Spanish. The focus was on maintaining the same difficulty and length of the sentences: the total number of words was maintained the same, and never differed more than two words. Attention was also paid to the word length, choosing nouns that were not strictly translated.

Table 12: Comparison between Italian and Spanish sentences in the Repetition Items subtest

Items	Sentences
1-4	La niña [**que**]$_1$ [**estaba jugando**]$_2$ [**con**]$_3$ [**la puerta**]$_4$ se lastimó la mano. La bambina [**che**]$_1$ [**stava giocando**]$_2$ [**con**]$_3$ [**la palla**]$_4$, si è fatta male.
5-9	El niño [**agarró**]$_5$ [**el libro**]$_6$ [**que**]$_7$ estaba [**sobre**]$_8$ [**la mesa**]$_9$. Il bambino [**ha preso**]$_5$ [**il libro**]$_6$ [**che**]$_7$ era [**sopra**]$_8$ [**il tavolo**]$_9$.
10-12	El gato no [**quería**]$_{10}$ [**comer**]$_{11}$ aunque [**tenía hambre**]$_{12}$. Il gatto non [**voleva**]$_{10}$ [**mangiare**]$_{11}$ anche se [**aveva fame**]$_{12}$.
13-16	La niña [**estaba triste**]$_{13}$ [**porque**]$_{14}$ [**se**]$_{15}$ [**le**]$_{16}$ había roto la muñeca. La bambina [**era triste**]$_{13}$ [**perché**]$_{14}$ [**le**]$_{15}$ [**si**]$_{16}$ era rotta la bambola.
17-20	[**Si**]$_{17}$ [**tuviera dinero**]$_{18}$ me [**compraría**]$_{19}$ [**un helado**]$_{20}$. [**Se**]$_{17}$ [**avessi soldi**]$_{18}$ mi [**comprerei**]$_{19}$ [**un gelato**]$_{20}$.
21-23	[**La señora**]$_{21}$ llamó a los bomberos [**cuando**]$_{22}$ vio que [**salía humo**]$_{23}$ del carro. [**La signora**]$_{21}$ ha chiamato i pompieri [**quando**]$_{22}$ ha visto che [**usciva fumo**]$_{23}$ dall'auto.
24-27	[**Antes de**]$_{24}$ [**abrir**]$_{25}$ la puerta el niño se [**fijó**]$_{26}$ [**quién era**]$_{27}$. [**Prima di**]$_{24}$ [**uscire**]$_{25}$ di casa, il signore si [**guardava**]$_{26}$ [**allo specchio**]$_{27}$.
28-31	[**Si**]$_{28}$ [**los niños**]$_{29}$ [**hubieran llamado**]$_{30}$ [**por teléfono**]$_{31}$ la mamá los habría ido a recoger. [**Se**] [**i bambini**] [**avessero chiamato**] [**al telefono**], la mamma sarebbe andata a prenderli.
32-34	[**Cuando**]$_{32}$ entraron de [**la calle**]$_{33}$ la mamá les pidió que les [**quitaran**]$_{34}$ los zapatos. [**Quando**]$_{32}$ è tornata [**da scuola**]$_{33}$, la mamma le ha chiesto se [**avesse**]$_{34}$ fame.
35-37	[**Los niños**]$_{35}$ [**tenían que**]$_{36}$ ayudar en [**la cocina**]$_{37}$ antes de ponerse a ver la televisión. [**I bambini**]$_{35}$ [**dovevano**]$_{36}$ aiutare [**in cucina**]$_{37}$ prima di mettersi a guardare la televisione.

CHAPTER 8 – Comparison with an Italian bilingual test battery

8.1 The BaBIL

The test battery BaBIL (Bambini Bilingui)[49] was developed with the purpose of assessing verbal and non-verbal skills in bilingual children in the first years of schooling (from 6 to 8 years old). The test aims to assess Italian children coming from families that speak a language different than Italian at home.

The BaBIL includes an analysis of the child's spoken languages where the school and the family's background are inspected. The analysis permits to identify the stronger language and the levels of dominance in order to outline the child's linguistic profile in more detail.

The test battery includes four tests in the child's home language and four tests in Italian. The child is exposed to pictures and audios that expect the child's reaction and decoding. The child is asked to answer the questions by indicating the correct picture or coloring a template. Eight different foreign languages have been specifically considered for the BABIL: Moroccan Arabic, Tunisian Arabic, Romanian, Albanian, Tagalog[50], Mandarin Chinese, Bengali and Twi[51].

The battery is structured in the following way:

- Part 1 of the test evaluates the lexical ability (receptive vocabulary)
- Part 2 focuses on the Morphosyntax and asks the child to do tasks involving spatial location and recognizing quantities.
- Part 3 evaluates the child's ability to recognize colors, body parts and laterality.

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[49] Contento S., Bellocchi S., Bonifacci P., 2013

[50] Tagalog is an Austronesian language spoken in the Philippines

[51] Also known as Akan Kasa, Twi is a is a dialect of the Akan language that is spoken in southern and central Ghana

- The fourth part is an extra test and measures the understanding of simple phrases and complex, and pragmatic judgments that are proposed progressively increasing difficulty. The extra test is done exclusively in Italian and helps the child familiarize with the testing battery. It must be repeated until the child is at ease.

The BaBIL is aimed to be used in screening projects to evaluate the linguistic skills of bilingual children living in Italy attending the first years of elementary school. It's constructed to identify difficulties in the first or second language or in both, which can then lead to the creation of fitting plan of rehabilitation for the child or a way to monitor the evolution of their language competences.

8.2 Comparing the BESA and the BaBIL[52]

Both the BESA and the BaBIL are specific bilingual assessment tools that share a similar structure. The two batteries include an analysis of the child's linguistic background that focuses on both languages and precedes the testing session. Having an insight of the linguistic situation of the single individual is an important step for the following evaluation because knowing the specific details will outline a unique background that makes the assessment more precise. While the BaBIL simply collects data, the BESA offers two different questionnaires with specific questions. Since I had access exclusively to the BESA battery and not to the BaBIL battery I can only presume, while comparing the online descriptions of the two tests, that the BESA has more specific questions and thus can potentially collect more data.

Both batteries have an optional activity (called Pragmatics Activity in the BESA battery) that aims to observe the child's contextual use of the language. Moreover, most subtests focus on the same grammatical domains: Pragmatics, Morphosyntax and

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[52] It must be noted that the comparison of the BESA and the BaBIL has been made while having access exclusively to the online description of the BaBIL, without consulting the test battery

Semantics. One subtest is different: while BESA assesses Phonology (therefore observing the child's ability to pronunciate words), the BaBIL assesses the lexicon of the child (observing the extent of the child's vocabulary knowledge). I think Phonology is an important aspect to consider when evaluating a child because phonological impairments are an aspect that deserves attention in the SLI detection. On the other hand, the vocabulary also is an important aspect to analyze. The vocabulary of bilingual children is expected to be smaller than a monolingual, so evaluating the extent of its knowledge turns to be useful too. Considering both relevance of the two assessed areas, new bilingual assessment tool may be developed in the future taking into consideration both aspects.

Below, a table puts in comparison the elements of each battery: the names of the subtests of the BaBIL have been given basing on their contents, provided in the battery description. It can be noticed that the BESA and the BaBIL appear very similar from the structural point of view.

Table 11: Structure comparison of the BESA and the BaBIL batteries

BESA	BaBIL
Questionnaires: ITALK, BIOS	Analysis of linguistic background
Pragmatics activity	Pragmatics activity
Phonology subtest	Lexicon subtest
Morphosyntax subtest	Morphosyntax subtest
Semantics subtest	Semantics subtest

CHAPTER 9 - Conclusion

9.1 Final remarks

The main purpose of the thesis has been presenting and proposing an Italian adaptation of a linguistic subtest extracted from the English-Spanish bilingual battery named BESA. The battery in question has been described and analyzed in the first chapters, locating its strengths and properties. The chosen subtest has been adapted into Italian from the Spanish Morphosyntax subtest, while picturing an audience of bilingual children living in Italy. The two parts of the subtest – testing Cloze items and Repetition items – have been adapted while maintaining similar structures to the corresponding Spanish subtest and more importantly, trying to maintain the test's properties of reliability, validity and diagnostic accuracy as much as possible. After presenting a commentary of the adaptation that resumed the translation choices and the issues encountered during the process, the paper has proposed a comparison between the structure of the BESA and one of the few clinical test batteries available for bilingual children in Italy.

The search of test batteries specialized on the assessment of bilingual children in Italy has confirmed the extremely low availability and traceability of such instruments. Through an accurate search on the web I have located only one Italian bilingual battery – the BaBIL – whose online description has been used to make a comparison to the BESA in chapter 8. In addition, adapted subtests have also been searched online, showing results that still resulted limited.

The development of linguistic assessment tools is in constant evolution, yet it can be noticed that Italian linguistic batteries still display a big difference in the offer in comparison to similar linguistic tools developed in other widespread languages such as English, indicating a greater need of research for test development. Considering the lack of such specific assessment tools recent developments in the linguistic field are being obtained, suggesting the possibility of new assessment tools and test adaptations to be developed in the future.

The adaptation of more recent testing instruments for bilinguals together with more research could be a good prompt to create more, continuing to aim to a constant improvement of the assessment tools for bilingual children.

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