

## UNIVERSIDADE FEDERAL DE SANTA CATARINA CENTRO DE COMUNICAÇÃO E EXPRESSÃO PROGRAMA DE PÓS-GRADUAÇÃO EM INGLÊS

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# PHONOLOGICAL AWARENESS AND L2 VOCABULARY LEARNING: AN ANALYSIS OF ASSESSMENT TESTS

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O presente trabalho em nível de mestrado foi avaliado e aprovado por banca examinadora composta pelos seguintes membros:

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Certificamos que esta é a **versão original e final** do trabalho de conclusão que foi julgado adequado para obtenção do título de mestre em Inglês: Estudos Linguísticos e Literários.

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#### **ABSTRACT**

Phonological awareness (PA) is a critical component of the set of skills that underlie the acquisition of literacy. The development of phonological awareness takes place mainly throughout the years in which children receive reading instruction. In the public municipal schools of Florianópolis (SC, Brazil), the beginning of formal exposure to English as an L2 in the school curriculum coincides with the beginning of formal literacy acquisition. Given that there is evidence that PA interacts with L2 learning, it is an important theoretical and educational endeavor to describe and explain this interaction. Empirically, any approach to this task involves selecting instruments that assess PA, in L1 and L2, as well as language skills, also in L1 and L2. The present study aims at investigating the main features of two Brazilian Portuguese L1 phonological awareness (L1PA) assessment tests, namely Prova de Consciência Fonológica por Produção Oral - PCFO (Capovilla and Capovilla, 1998) and Consciência Fonológica: Instrumento de Avaliação Sequencial - CONFIAS (Lamprecht et al., 2003) and two L2 vocabulary assessment tests, namely the Vocabulary Levels Test (VLT), proposed by Paul Nation (1992), and the vocabulary size test (V YesNo), proposed by Paul Meara (1993), with the intent of contributing to future empirical studies in schools that might be interested in applying one of the these tests to investigate phonological awareness and/or L2 vocabulary acquisition by native speakers of Brazilian Portuguese. For the analysis of these instruments a protocol consisting of 4 main categories was developed. The analysis of the L1 PA tests shows that *PCFO* and *CONFIAS* assess PA in a comprehensive fashion given the varied types of tasks that compose each test. As for the vocabulary tests they share resemblance in so far as they both assess vocabulary at the receptive level although the V YesNo is more concerned with the quantity of words participants know. Based on the analyses of the Brazilian Portuguese L1 PA tests and the English L2 vocabulary tests, it is possible to conclude that the four tests analyzed can be applied in pedagogical settings albeit a salient limitation in the L2 vocabulary tests is that neither assesses L2 vocabulary skills at the productive level.

**Keywords:** Phonological awareness. Literacy. Language skills. L2 vocabulary learning. Assessment tests.

#### **RESUMO**

A consciência fonológica é um componente decisivo do conjunto de habilidades que sustenta a aquisição da alfabetização. O desenvolvimento da consciência fonológica ocorre principalmente ao longo dos anos em que as crianças recebem instrução de leitura. Nas escolas da Rede Municipal de Ensino de Florianópolis (SC, Brasil) o início da exposição formal ao inglês como segunda língua no currículo escolar coincide com o início da alfabetização. Considerando que há evidências de que consciência fonológica interage com a aprendizagem de segunda língua é um importante empenho teórico e educacional descrever e explicar essa interação. Empiricamente, qualquer abordagem a essa tarefa envolve selecionar instrumentos que aferem consciência fonológica na língua materna e na segunda língua, bem como habilidades de linguagem tanto na língua materna quanto na segunda língua. O presente estudo tem como objetivo analisar as principais características de dois testes que aferem consciência fonológica no português brasileiro, a saber Prova de Consciência Fonológica por Produção Oral - PCFO (Capovilla e Capovilla, 1998) e Consciência Fonológica: Instrumento de Avaliação Seguencial - CONFIAS (Lamprecht et al., 2003) e dois testes de aferição de vocabulário na segunda língua denominados Vocabulary Levels Test (VLT) proposto por Paul Nation (1992) e o teste de tamanho de vocabulário (V YesNo), proposto por Paul Meara (1993), com o intento de contribuir com futuros estudos empíricos que possam estar interessados em aplicar um desses testes para investigar consciência fonológica e/ou aprendizagem de vocabulário em segunda língua em falantes nativos do português brasileiro. Para a análise desses instrumentos um protocolo consistindo de 4 principais categorias foi desenvolvido. A análise dos testes de consciência fonológica em língua materna indica que PCFO e CONFIAS avaliam consciência fonológica de modo abrangente considerando os variados tipos de tarefa que compõem cada teste. Quanto aos testes de vocabulário estes possuem semelhanças visto que avaliam vocabulário no nível receptivo, embora o teste denominado V YesNo esteja mais direcionado a aferição da quantidade de palavras que os participantes sabem. Com base nas análises dos testes de consciência fonológica no português brasileiro e dos testes de vocabulário na segunda língua é possível concluir que os quatro testes analisados podem ser aplicados em contextos pedagógicos, ainda que uma limitação saliente nos testes de vocabulário se deva ao fato de que nenhum dos dois testes avalia vocabulário na segunda língua no nível produtivo.

**Palavras-chave:** Consciência fonológica. Alfabetização. Habilidades de linguagem. Aprendizagem de vocabulário em L2. Testes de aferição.

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#### LIST OF ABBREVIATIONS

CONFIAS - Consciência Fonológica: Instrumento de Avaliação Sequencial

EFL - English as a Foreign Language

FT- Full-term

IVI - Implicit vocabulary instruction

IQ - Intelligence Quotient

L1 – First Language

L2 –Second Language

PA – Phonological Awareness

PCFO – Prova de Consciência Fonológica por Produção Oral

PT – Pre-Term

RTI - Response to Intervention

U.S. - United States

VLT - Vocabulary Levels Test

WM - Working Memory

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#### **CHAPTER I**

#### 1. INTRODUCTION

Vocabulary is a *sine qua non* component to attain successful L2 learning (LAUFER; NATION, 1995; ZIMMERMAN, 1997; SCHMITT; MEARA, 1997; LAUFER; NATION, 1999; LAUFER; GOLDSTEIN, 2004; SCHMITT, 2008; STAEHR, 2008; KOIZUMI; IN'NAMI, 2013; WU, 2015; CLARCK; TROFIMOVICH, 2017; HACKING; TSCHIRNER, 2017; UBAQUE; PINILLA, 2018; SCHMITT, 2019; LEE; KRISHNAMOORTHY; RONG, 2019). Since I had my initial contact with English, back when I was about eleven years old, vocabulary was the aspect inherent to the learning of a foreign language (FL) that interested me the most and I was very enthusiastic about sharing with my friends, classmates, acquaintances and family the new words I had learnt, albeit it took me some years to be fluent. I have always wanted to conduct research in this field.

On March 19<sup>th</sup>, 2019, I had the great honor to visit for the first time the *Laboratório de Linguagem e Processos Cognitivos* (LabLing), coordinated by Professor Mailce Borges Mota, which made me very proud of being part of this excellent team and to begin to conduct a study wherein I attempt to establish an interface between the L1 (specifically phonological awareness construct) and L2 vocabulary learning. Now I have the opportunity to present the outcomes of this research.

According to Hu and Schuele (2005, p. 343), phonological awareness is "the knowledge of the discrete sound segments of language". Regarding the relationship between L1 phonological awareness, vocabulary acquisition and literacy, Cardoso-Martins (1991) states that phonological awareness in preschoolers positively correlates with reading and writing skills, principally in alphabetic scripts (BRYANT; GOSWAMI, 1987). In addition, oral vocabulary exerts influence in children's literacy development (BIALYSTOK; LUK; KWAN, 2005). Lexical development, in turn, is dependent on phonological processing abilities (NICOLAY; PONCELET, 2013), which includes phonological awareness (DE JONG; SEVEKE; VAN VEEN, 2000).

Concerning L2 learning, Milton and Donzelli (2013) state that vocabulary size is an important component of literacy in a second language because it enables comprehension, communicative skills and fluency. In line with this, Staehr (2008) in assessing Danish participants' English vocabulary size by means of the implementation of the Vocabulary Levels Test (this vocabulary assessment tests will also be analyzed in the current Thesis) sustains that more than 70% of variance in reading in the L2 is predicted by vocabulary growth. According

to the author, a possible answer for this finding is that if the learner has a wide lexical repertoire, they will be able to identify a great percentage of lexical items in any text and should the lexical coverage of the text is considerably high (98%) the learner will probably obtain a satisfactory comprehension of the text. Staehr (2008), likewise, in their experiments found that lexical development also contributes to writing and to a lesser degree to auditory abilities inasmuch the *Vocabulary Levels Test* only assesses participants at the receptive level of the written form which might not prepare participants to recognize spoken words. Hence, the weak relationship in Staehr (2008)'s study between vocabulary growth and listening skills.

With respect to L2 young learners, Butler (2019) states that age is a critical component of infant's vocabulary acquisition on account of some factors that benefit them such as auditory abilities. Auditory abilities, for instance, contribute to the development of L2 learning and place L2 learners in an advantageous position, compared to their adult counterparts (BUTLER, 2019). Another positive variable inherent to children learning an L2 is their enthusiastic and lively behavior as they are usually not reluctant to the activities proposed by their teacher (CAMERON, 2002).

The paucity of research involving an important facet of literacy acquisition, such as phonological awareness, and the acquisition of L2 in the school setting motivated me to carry out the present study. Initially, the main objective of the present study was to investigate whether there is a relationship between L1 phonological awareness, a defining component and precursor of L1 literacy, and L2 vocabulary learning, one of the main contents of L2 instruction in primary school. In other words, considering the notable gap in this area of investigation, this study aimed at scrutinizing how these two variables, L1 PA and the L2 vocabulary learning, interact in the case of Brazilian children taking English classes as part of the school curriculum. The study was first intended to be conducted in schools that are part of the public network in Florianópolis.

Notwithstanding, due to the COVID-19 pandemic, implementing experiments with children in face-to-face encounters would be a nonstarter. Furthermore, running the experiments remotely could be non-viable, either, inasmuch children are not much acquainted with using digital devices for research purposes, which could affect their comprehension or performance during the trials. Thereby, some adjustments to the initial project needed to be made. Given that there is evidence that PA interacts with L2 learning, it is an important theoretical and educational endeavor to describe and explain this interaction. Empirically, any approach to this task involves selecting instruments that assess PA, in L1 and L2, as well as language skills, also in L1 and L2. Therefore, the general objective of the present study focuses

on one of the vital stages of empirical research – the analysis of instruments to be adopted in an experiment. The current study aims at analyzing two L1 PA tests and two vocabulary tests. The following L1 PA tests were chosen for analysis: *Prova de Consciência Fonológica por Produção Oral (PCFO)* by Capovilla and Capovilla (1998) and *Consciência Fonológica: Instrumento de Avaliação Sequencial (CONFIAS)* proposed by Lamprecht *et al.* (2003). The following L2 vocabulary tests were selected for analysis: The *Vocabulary Levels Test (VLT)*, proposed by Paul Nation in 1983 and the vocabulary size test *V\_YesNo* by Meara (1992). With the present study, I intend to outline the main characteristics of the above-mentioned tests and thus contribute to future studies concerned with PA and/or L2 vocabulary acquisition.

#### 1.1 SIGNIFICANCE OF THE STUDY

The relationship between phonological awareness, vocabulary learning, and the development of literacy is an important but complex one. Some questions are worthy of debate such as: How do children that are still in the process of acquiring reading and writing skills learn English as L2? Given that at this learning stage (i.e., at the stage of literacy acquisition) L2 learning at schools tend to emphasize the teaching of vocabulary, how do children learn the vocabulary of the L2? What factors contribute to the retention of L2 vocabulary? These queries can be answered in many ways, but in the present study the main focus will be placed on two aspects – phonological awareness and L2 vocabulary. For reasons of scope, I will first approach phonological awareness in the L1, by means of the analysis of two L1 PA tests. Concerning the L2, vocabulary was selected because this is generally the focus of teaching in the initial stages of the learning of an L2 by children. Therefore, I will also analyze two L2 vocabulary tests. In this sense, the present study may bring a broader understanding of the main characteristics of these tests and may inform future studies that aim to investigate the relationship between phonological awareness and L2 learning, especially vocabulary learning and literacy. Furthermore, the analysis of these materials can instigate L2 researchers and teachers to calibrate these important skills, that is, L1 phonological awareness and L2 vocabulary learning, in the future, which may be effective not only for future research in the area, but also for pedagogues and English teachers to ameliorate literacy and L2 hindrance young learners may have.

#### 1.2 ORGANIZATION OF THE THESIS

This thesis is divided into five chapters. Chapter I, presents the current study proposals. Chapter II presents a review of the literature related to the topics to be addressed in this study

and contains six sections: L1 phonological awareness; L1 phonological awareness: empirical studies; L2 vocabulary acquisition; L2 vocabulary acquisition by young learners: empirical studies; L1 phonological awareness and L2 vocabulary acquisition; and L1 PA and L2 vocabulary acquisition: empirical studies. Chapter III lays out the methodological procedures that were adopted and presents the objectives and the research questions. Subsequently, Chapter IV presents and discusses the results of the analysis of the instruments selected. Finally, Chapter V (Conclusion) presents comments, limitations of the study and suggestions for future research.

#### **CHAPTER II**

In this chapter, a theoretical framework about L1 phonological awareness, L2 vocabulary acquisition and the possible interface between L1 phonological awareness and L2 vocabulary acquisition will be presented.

#### 2. THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

#### 2.1 L1 PHONOLOGICAL AWARENESS

Before analyzing the main characteristics of PA assessments tests and L2 assessments tests and if or how they could be applied in Brazilian schools in future experiments, understanding what PA is about is of utmost importance. Consciously reflecting upon, manipulating and discriminating the phonological parts composing a spoken word in a systematic manner characterizes an adequate PA competence in children (VELLUTINO et al., 1996; CHEUNG, 2001; GRIGORENKO, 2001; CASTLES; COLTHEART, 2004; PAULA; MOTA; KESKE-SOARES, 2005; ZIEGLER, 2005; FRANCISCO et al., 2006; VERHOEVEN, 2007; VERHAGEN, 2010; UCHIKOSHI, 2019; YOUNGER et al., 2019). In like manner, according to Blachman (2000, p. 483), "Phonological awareness, simply stated, is an awareness of the phonological segments in speech – the segments that are more or less represented by an alphabetic orthography". Hu and Schuele (2005, p. 343), in a similar vein, define PA as "the knowledge of the discrete sound segments of language". In line with Hu and Schuele's definition, Li et al. (2020), consider spoken lexical segmentation as an important ability in speech perception. Prior to learning to read, children are aware of relatively large phonological units such as syllables (GOSWAMI, 2010). Goswami (2010) also sustains that PA is a critical component for a child to understand the complex patterns of the alphabet in a visual form. A child with a poor PA ability, normally has deficient processing skills. Children with adequate processing skills, conversely, seem to develop satisfactory PA and good reading (decoding abilities). Rezaei and Jeddi (2020), along the same line, defend the idea that adequate phonological processing predicts appropriate reading skills.

Erskine, Munson and Edwards (2020) characterize phonological awareness tasks as the requirement for individuals to recognize that words contain internal structural units, such as syllables, onsets, and rimes, and individual speech sounds (phones). The same authors state that blending and elision are the two most frequent tasks that have been used to evaluate phonological awareness in children. According to Crystal (2008), blending can be defined as

the combination of two elements which do not usually co-occur according to the rules of the language, thus resulting in a single linguistic unit. In psycholinguistics the term is also used to refer to a type of slip of the tongue involving the fusion of two target words, e.g. swurse for swear plus curse. Elision, in turn, is defined in phonetics and phonology as the act of omiting the sounds in connected speech wherein both consonants and vowels may be elided. In some cases, whole syllables are affected, too (CRYSTAL, 2008).

Erskine, Munson and Edwards (2020) also advocate that being cognizant of the characteristics of phonological awareness and its development is fundamental to understand the development of reading skills in children. Hu and Schuele (2005) and Keck and Wolgemuth (2020), in the same vein, champion that phonological skills are one of the important facets predicting literacy competence. Kjeldsen *et al.* (2014) concluded that training on phonological awareness abilities can have longstanding beneficial effects on literacy. Paula, Mota and Keske-Soares (2005), in a similar vein, sustain that phonological awareness may interfere in literacy development. These authors also emphasize that an adequate instruction in phoneme-grapheme in young learners represent solid gains in literacy.

Defior (2004) advocates that languages with a more transparent orthography contribute to the highest possible levels of conscious phonological representations and learners of these languages are at advantage in terms of solid gains in literacy as mentioned by Paula, Mota and Keske-Soares (2005) in relation to the speakers of opaque languages, such as English. Defior (2004) states that phonological skills are better in transparent languages such as Spanish and that the more rapid development of PA can be explained by the linear direct contact with a logical set of graphic symbols. Defior (2004) also sustains that learners of opaque languages (i.e. English and French) spend more time at intermediate levels of PA.

Irrespective of individuals' native languages are transparent or opaque, Alshaboul *et al.* (2014) contend that as children grow older, they become more sensitive in their recognition of the smaller lexical parts which lead them to manipulate syllables before onsets and rimes and merge phonological information before they segment. Werker (2002) defends the idea that infants are inclined to perceiving sounds in a more holistic manner and their sensitivity in relation to the fined-grain phonemic aspects ascends by the age of two.

In consonance with the idea sustained by Alshaboul *et al.* (2014) about children's sensitivity to recognizing smaller lexical parts, according to Goswami (2000) lexical development and phonological awareness may be correlated. Goswami (2000) also claims that preschoolers manifest syllabic and onset-rime competence. When they start going to school and are taught to read and to spell, their phoneme awareness develops. As for one of the aspects of

phonological competence, Goswami (2000) champions that good rhyming skills contribute to reading, spelling and vocabulary.

Blachman (2000) argues that the gradual development of phonological awareness represents a causal relationship to reading. Blachman (2000) also upholds that albeit phonological processing is not the only answer for the quandaries underlying reading acquisition it is one of the most important areas of inquiry in addressing reading process. The author, furthermore, advocates that explicit phonological awareness training contributes to a better speech-print association in beginning readers.

Considering that vocabulary is another construct of the present study together with phonological awareness, Uchikoshi (2019) states that decoding skills, vocabulary and shared book reading are important ingredients for the development of phonological awareness skills.

With the ideas presented above, it can be concluded that phonological awareness is an important metalinguistic skill that plays a crucial role in the development of literacy in the L1.

The next section presents a review of selected empirical studies on L1 PA.

#### 2.2 L1 PHONOLOGICAL AWARENESS: EMPIRICAL STUDIES

In this section, some empirical studies on phonological awareness are described with the intent of understanding how PA competence is assessed and which outcomes are obtained, as this ability will be measured in the present study.

Considering infants' initial contacts with the spoken language, Stager and Werker (1997), in their experiments with newborn children and their initial contacts with English concluded that under the age of 8 months, children are more sensitive to the phonetic differences between words in both their native and in unfamiliar languages. Conversely, they are less sensitive to identify and discriminate semantic aspects of language, whereas 1 year-old infants are more sensitive to semantic differences between words and only discriminate words that have relevant phonetic differences because after the age of one children's speech perception is slightly more developed that their 8 months-old babies counterparts which enables them to perceive such a task as a word learning task rather than as a simple sound discrimination task (STAGER; WERKER, 1997).

In another study Werker *et al.* (2002) conducted three experiments about the effects of age and vocabulary size with toddlers (14 month-old and 20 month-old infants) with the intent of verifying whether the difficulties 14 month-infants have in pairing phonetically similar words to two different objects is due to their novel learner's status or if it is due to the difficulties of the tasks *per se*. In these experiments, participants were administered audio stimuli and were

requested to respond to these stimuli by distinguishing words based on their phonetic aspects. Werker *et al.* (2002) concluded that more-experienced word learners are more inclined to perceiving lexical phonetic shades which permits them to distinguish words more easily than their less-experienced learner counterparts. Therefore, a broader lexical repertoire contributes to a better competence in attending to phonetic aspects.

In implementing a set of experiments with slightly older children than those tested by Stager and Werker (1997) and Werker et al. (2002). Pérez-Pereira, Martínez-López and Maneiro (2020) conducted a six-year set of experiments in which both preterm (PT) and fullterm (FT) Spaniard children had their PA and other abilities tested in Spanish. Concerning the PA abilities, the main aim of the study was to investigate a possible interface between PA and reading abilities and if PT infants had difficulties or impairments in relation to their FT counterparts. One hundred and fifty-one PT children were recruited and forty-nine FT children were recruited. According to Pérez-Pereira, Martínez-López and Maneiro (2020), the PA test consisted of syllabic and phonemic awareness in children between 3 and 8 years old. The experiments consisted of thirteen tasks, namely: rhyme recognition; initial syllable identification; final syllable identification; initial syllable addition; final syllable addition; initial syllable omission; final syllable omission; initial phoneme identification; final phoneme identification; initial phoneme addition; final phoneme addition; initial phoneme omission and final phoneme omission. Pérez-Pereira, Martínez-López and Maneiro (2020) concluded that prenatally did not affect PT children's performance in relation to their FT peers'. With respect to the relation between PA and literacy, the authors found support to the hypothesis that PA abilities interfere positively in literacy. Pérez-Pereira, Martínez-López and Maneiro (2020) recognize that the fact that Spanish is a transparent language facilitates the phoneme-grapheme parallel. The conclusion that transparent languages contribute to a more acute phonemegrapheme association is consistent with Defior (2004)'s premises. Pérez-Pereira, Martínez-López and Maneiro (2020) also deem Working Memory (WM) a positive factor on reading abilities. In this vein, the relation between WM and satisfactory cognitive outcomes is compatible with Mota (2015)'s assertion that working memory plays an important role in language development.

In conducting PA experiments with pre-readers children, Muter *et al.* (1997) implemented PA skills tests with 38 Londoner children over a 2-year period. The tests consisted of a rhyme detection task wherein participants were presented pictures and had to indicate which pictures depicted an item that rhymed with the word uttered by the experimenter; a rhyme production test in which children were asked to produce words that rhymed with each of two

target words (producing pseudo-words was permissible); a phoneme identification test in which participants had to identify a missing phoneme and complete the proposed word with it and a phoneme deletion test wherein infants were presented a picture of a common object and were requested to utter the word after deleting its initial phoneme. After the implementation of the experiment, Muter *et al.* (1997) reasoned that children's ability to segment words is a pivotal component of their reading and spelling abilities during their first year of school. Their IQ (Intelligence Quotient) and rhyming abilities did not impact their literacy in the first year, that is at early stages of literacy, although rhyming' interference in literacy exerted an influence on participants in the second year.

In a study about phonological awareness, Rezaei and Jeddi (2020), designed a set of experiments comprising different components, namely attentional control, working memory with reading and phonological awareness. The participants were 259 Iranian children whose mean age was 9. The PA tests consisted of phoneme segmentation, phoneme and syllable combining, classification of first sound, classification of last sound, phoneme deletion and naming. Rezaei and Jeddi (2020) concluded that there was a significant direct impact of phonological awareness on reading.

Considering that PA predicts literacy acquisition, a question which arises is: what predicts PA? Erskine, Munson and Edwards (2020) designed set of experiments with the intent of verifying whether PA in 2-4 year-old children may be predicted by receptive vocabulary, speech perception and production and nonword repetition tests.

Erskine, Munson and Edwards (2020) recruited 168 participants from Wisconsin and Minnesota, United States for nonword repetition and PA experiments. The PA tests consisted of children being required to explicitly manipulate sublexical units within words, to elide words, units or phonemes to form a novel words - i.e. children were instructed to say the word "baseball" without "base" to produce "ball" and to blend phonemes provided in the audio they were listening to in order to form an existing word.

The set of experiments conducted led Erskine, Munson and Edwards (2020) to conclude that speech production and nonword repetition contribute to performance in PA in children under the age of five insofar as the authors consider speech production to be a measure of articulatory-motor control and nonword repetition to be an assessment of children's ability to encode unknown sequences without lexical aid. Gathercole and Adams (1993), similarly, argue that young children have no difficulty in grasping the nature of non-repetition tasks which can be an important predictor of the development of PA in the ensuing years. Albeit Erskine, Munson and Edwards (2020) recognize that vocabulary perception stimuli activities and

vocabulary size may be pivotal variables favoring PA, this premise has not been confirmed in this study.

Concerning L1 PA empirical studies in Brazil, Paula, Mota and Keske-Soares (2005) designed a set of phonological awareness therapy experiments with 46 children of 4 different public schools in Rio Grande do Sul to assess the influence of phonological awareness therapy in the literacy process. The researchers recruited both literate and illiterate participants. The tasks consisted of rhyming, segmentation, syllable transposition and alliteration activities with an emphasis on a phoneme-grapheme relation in both words and pseudo-words. In this study Paula, Mota and Keske-Soares (2005) concluded that phonological awareness therapy and the phoneme-grapheme training had a positive impact on the literacy development of the majority of the participants of their experiments (76,47%). The experimenters reasoned that presenting children the internal structures of spoken words and how they can be manipulated do facilitate the literacy process, albeit in this research, it has been found that phonemic awareness tests are more effective for children at advanced levels of literacy.

In another L1 PA empirical study with Brazilian children Amorim *et al.* (2020) conducted a pool of experiments to examine the effectiveness of a game-enhanced educational program named Escribo Play to measure preschool students' phonological awareness, word reading and writing skills in 678 private schools of different cities of the northeast of Brazil. The PA tests constituted ten subtests to assess participants' awareness of syllables, rhymes, alliterations and phonemes in Portuguese.

Amorim et al. (2020) reasoned that the effective PA training represented gains in participants' literacy. The authors sustain that the fact that the activities have been implemented by means of digital games arouse participants' motivation and attention which may have contributed to their performance. Another factor suggested by Amorim et al. (2020) that may have facilitated the implementation of the tasks was the fact that the teachers involved in this procedure demonstrated acquaintance with the variables that were the object of inquiry in this study namely, phonological awareness, word reading and writing skills which may have not struck students as a surprise. The authors recognize that restricting participants to a specific socioeconomic status is a limitation of the study insofar as according to Amorim et al. (2020) private school students usually have more access to books and incentives for their literacy acquisition process than their public school children counterparts, which may not be a solid parameter to assess individuals' PA and literacy skills. Including public school students in this pool of experiments, though, would be beneficial to low-income children as this type of pedagogical intervention usually represents learning gains for underprivileged students

(AMORIM ET AL, 2020). In summary, the empirical studies reviewed above show that intensive phonological awareness training contributes to the development of literacy.

One important aspect for the development of literacy in L1 is vocabulary (e.g., NAGY, 2007). L1 Phonological awareness and L1 vocabulary learning and development also seem to be intertwined (LONIGAN, 2007). In the case of bilinguals, Goriot *et al.* (2019) mention that vocabulary knowledge in the L1 as well as in the L2 may be one of the factors that exert influence on phonological awareness. In other words, there seems to be an association between PA and vocabulary knowledge, both in L1 and in L2.

Still concerning the assessment of PA and vocabulary, Santos and Lopes (2012) conducted an experiment with 9-10 year-old children form both private and public schools of São Paulo-Brazil wherein different language including phonological awareness and vocabulary (albeit in this study, the authors assessed vocabulary in L1 rather than in L2). Santos and Lopes (2012) found a correlation between children's performance in the PA tasks, rapid naming tasks and the categories of contextual conventions and contextual language of the written composition test which reinforces the rationale that phonological awareness training exerts influence over literacy.

As for the vocabulary test (ABFW Vocabulary Test) applied by Santos and Lopes (2012), the authors found that children who obtained a better performance in the Vocabulary test presented the smaller quantity of errors in spelling of words and pseudo words which led the authors to reason that testing participants' oral and written abilities are equally important for the literacy development.

After some mention of the vocabulary construct in this section, in order to gain a better understanding of how PA and L2 vocabulary might relate, we are moving into the next section that it will address L2 vocabulary learning.

#### 2.3 L2 VOCABULARY LEARNING

Vocabulary learning is an important process that contributes to L2 learning (LEE; KRISHNAMOORTHY; RONG, 2019). Milton and Donzelli (2013) underscore some linguistic and social knowledge that are intrinsic to the development of the lexicon, to wit, what part of speech each word is and the derivation of new words (i.e. *friendly* from *friend*). In this line Milton and Donzelli (2013) importantly uphold that including a prefix into a word not only changes the form of the word but also the meaning. For example, adding the prefix *dis* to the existing verb *associate* generates a word (*disassociate*) creating an opposite meaning. Other

linguistic and social knowledge include the words, each word can be semantically related to other words and the social circumstances the usage of a given word is appropriated or not.

Subsequently, Milton and Donzelli (2013, p. 442) state the following: "In order to understand the process of learning the words that comprise a lexicon, it is essential to understand what is being learned and how learners manipulate word knowledge". Milton and Donzelli (2013) also sustain that lexical knowledge constitutes understanding of the concepts; referents and associations related to the words and their meanings; lemmas which refers to the information on the meaning and on the syntactic categories of the words (nouns and adjectives); the knowledge of the grammatical functions of a word and an appreciation of the restrictions on use of each word. The ideas defended by Milton and Donzelli (2013) are consistent with Schmitt (2008)'s proposal that a L2 learner must not only possess a large L2 lexical repertoire, but must know way more about lexical items in order to appropriately use them, which is beyond establishing a meaning-form relationship. Regarding the appropriateness of lexical usage, Hacking and Tschirner (2017) advocate that being aware of the most adequate situations to use a specific word is fundamental for the L2 learning process.

In investigating L2 vocabulary, Nation (2001, p. 7) mentions the phenomenon "learning burden", which is the difficulty learners might encounter in learning novel words. For Nation, if a word in the foreign language contains sounds, spelling patterns and meanings that can be comparable to the learner's L1, these difficulties and efforts tend to be attenuated. Conversely, for learners whose the L1 is totally unrelated to the L2, their learning burden is likely to be heavier.

Nation (2001), appropriately, proposes that in order to diminish learning burden, it would be interesting if teachers attempt to pinpoint some resemblance and identify possible interfaces between both languages. Mulder *et al.* (2018), in this fashion, sustain that L2 study materials that contain semantically supportive contexts and little L1-L2 overlap, that is, not gaudy L1-L2 discrepancies, are most appropriate for L2 vocabulary learning, albeit it is worth noting that the aforementioned authors, in defending the identification of possible interfaces between both languages, are not specifically referring to Brazilian learners.

Nation (2001) underlines another critical factor for successful L2 vocabulary retention, namely repeated retrieval. For the author, repeated retrieval can be attained when teachers tell students the same story several times propitiating them to be in a constant contact with the same vocabulary in numerous occasions, thus enabling them to attain a better memorization. Albeit contextualization is an essential facet, especially in communicative activities, the author recognizes the legitimacy of decontextualization. For him, it would be fruitful if students were

provided opportunities to focus on words *per se*, not only when these words are exposed within a message. Therefore, it would be interesting if teachers also highlight words on the board with their respective L1 equivalents.

Malone (2018), in a similar fashion, mentions depth of vocabulary as how much learners know about the vocabulary they have learnt and breadth of vocabulary as the size or the number of L2 words that have been learnt. Compatible with the depth of vocabulary's idea, Zhang and Zhang (2020), indicate morphological knowledge, which refers to the knowledge of the base units, inflections and affixes of vocabulary lexical items together with associational knowledge as two important characteristics of L2 vocabulary knowledge. In line with the present Master Thesis, Zhang and Zhang (2020) point out phonological awareness as another pivotal ability to achieve satisfactory L2 lexical competence.

Still regarding depth of vocabulary, Laufer and Nation (1995) contribute to this premise by sustaining that some defining factors affect richness in L2 such as familiarity with the topic to be discussed and communicative purpose. Therefore, Laufer and Nation (1995)' viewpoints are relevant for the understanding of the L2 vocabulary acquisition.

In line with Uchihara, Webb and Yanagisawa (2019)'s rationale, Schmitt (2008) highlights "great exposure to the L2" as an important variable to build a larger L2 lexical repertoire. In agreement with these ideas, Laufer and Rozovski-Roitblat (2011) add that together with the repeated encounters with the word, the quality of attention learners pay to them during communicative or any other type of task is of utmost importance.

Concerning social circumstances of usage of language, Nation and Newton (1997), importantly, uphold that group activities in face to face encounters are beneficial for an adequate L2 vocabulary learning inasmuch they aid interlocutors to adjust their speech to learners' difficulties when they indicate insufficient comprehension. The authors also underscore an important item in group activities namely negotiation. According to them, negotiation is a pivotal strategy because it stimulates learners to assist each other by providing them additional information on novel or unknown lexical items.

Nation and Newton (1997) also emphasize that in interactive activities, learners are provided the opportunity to be exposed to repeated usage of novel items and when such a repetition occurs in meaningful contexts, learners are likely to refine the memorization of what they have been taught which contributes to a better L2 acquisition performance.

In consonance with Nation and Newton (1997) and Peters et al. (2019)' ideas, Sakata (2019) affirms that high-frequency words are another ingredient that contribute to an

improvement in students'L2 acquisition performance and that L2 teachers should be attentive to this aspect.

Collins (2010) sustains that reading stories in the L2 in more than one occasion to preschoolers at home contribute to their L2 lexical memorization improvement. This premise is consistent with Uchihara; Webb and Yanagisawa (2019) and Schmitt (2008)'s advocacy of repetition as an important ingredient for a fruitful L2 vocabulary retention. Regarding language learning, Ellis (2019) highlights the importance of recall. For him, recall is more important than recognition as it might befall that students are presented a L2 word that they have seen before and forget it a few minutes later. In order to avoid this forgetfulness, repetition and frequency in L2 classes are fundamental.

Expanding L2 lexical knowledge is as important as memorizing words. Considering this proposal, Emirmustafaoglu and Gokmen (2015), point out that dependency on L1 vocabulary is usually great when learners are at initial stages of their L2 apprenticeship. As learners increase their L2 lexical repertoire, their dependency on their L1 as a starting point for a better L2 vocabulary acquisition tend to decrease and learners adopt mechanisms for a better L2 performance without the usage of the L1.

Ellis, O'Donnell and Romer (2014), in a similar manner, uphold that the frequent contact with the L2 permits learners to converge the interpretations of novel utterances and to infer the meaning of an unknown word within a sentence or to know that such a word is a verb or an adjective.

Another important factor that boosts successful L2 learning in foreign language classes concerns the type of materials adopted. Considering the ubiquity of smartphones in the past few years, Wu (2015) sustains that smartphones and their language learning apps are a valid apparatus to increase L2 students' lexical repertoire inasmuch young learners are familiar with technological resources.

Butler (2019) describes main aspects of L2 vocabulary learning by young learners. According to her there are 3 general elements involved in the learning of L2 vocabulary, namely: the heterogeneity of the group, the role of additional languages known by the learner, and the role of age. I will discuss each element in the following paragraphs.

Concerning heterogeneity of the target group, Butler (2019) states that children's vocabulary learning can range according to an array of factors which include the number of languages a child is exposed to the nature of the input, that is, if they are immersed in a natural context of the usage of the L2 or in an instructional setting, the types of instruction children

receive, the social economic conditions of learning, the age of exposure to the target language and some individual factors such as motivation.

Regarding the role of additional languages, Butler (2019) sustains that basic mechanisms of vocabulary learning seem to be very similar between monolingual and bilingual infants. Nevertheless, there are some differences between both groups. Bilinguals are not as dependent on mutual exclusivity constraints as their monolinguals counterparts are. Another characteristic of bilinguals is that they have less exposure to each language individually.

In relation to the role of age, Butler (2019) argues that age is a critical factor in children's vocabulary learning on account of some variables: aural processing and capacity, cognitive capacity, general world knowledge and world experience.

Butler (2019) also states that children and adults show some differences in their vocabulary learning strategy. These differences are related to cognitive maturity and general knowledge based on life experience. Butler (2019) argues that children are more dependent on formulaic language, that is, they show a tendency to be attached to chunks of words whilst adult learners rely on other variables such as the combination of their L1 and L2, their learning environments and communicative purposes.

Butler (2019) also highlights that the empirical research on L2 vocabulary learning by children is scarce, compared to studies on adult leaning. In this vein, according to Mota, Xhafaj and Cardoso (2009, p. 110): "... the extent to which L1 levels of literacy interact with L2 levels of literacy and affect L2 achievement is still a neglected area of study". Therefore, Butler (2019) proposes that some L2 teaching methods are beneficial to enhance students' L2 repertoire such as providing children with information through varied means: music, songs, pictures, physical activities and gestures.

However, Butler (2019) recognizes that not all technology-aided instruction is effective for children's vocabulary learning according to the different circumstances. This effectiveness hinges on a series of factors such as types of vocabulary knowledge, targeted (receptive or productive knowledge), types of learners and other variables namely proficiency, interest and motivation.

Finally, Butler (2019) makes the following suggestions for future research. According to her, it would be interesting if researchers had broader knowledge of how teacher intervention and teachers-students occur, to wit, been aware that not all words are learned equally and understanding why some vocabulary instructions work better than others. Butler (2019) also proposes a more direct collaboration between L2 teachers and researchers in order to improve children's L2 learning in instructional settings.

Another important facet of L2 vocabulary learning that must not be neglected is vocabulary size. According to Meara (1992), individuals with large L2 lexical repertoire are more competent at listening, reading and demonstrate more suitable grammatical sense than people with a restricted L2 lexical range. Meara (1992) claims that many English language courses are grammar-centred whilst vocabulary has not received much attention.

Beglar (2010), by the same token, champions that considering the key role lexical competence plays in reading and listening, sizing vocabulary size at the receptive level is important for administrators, teachers and students themselves.

Laufer and Nation (1999), in the same way, defend the idea that vocabulary growth is an essential component of L2 vocabulary learning process to be taken in to consideration together with other lexical aspects such as collocations, use in contexts and related meanings. The vocabulary size assessment premise is compatible with the L2 vocabulary assessments test that are going be analyzed in the current Master Thesis.

#### 2.4 L2 VOCABULARY LEARNING BY YOUNG LEARNERS: EMPIRICAL STUDIES

Considering that L2 vocabulary learning is one of the main constructs of the present study, including empirical studies on this topic into the discussion is of utmost relevance.

Coyle and Gracia (2014), conducted L2 vocabulary acquisition experiments with 5-6 year-old Spaniard children learning English as a foreign language (EFL). The participants listened to the audio-recorded stories and songs and were required to identify key vocabulary in the worksheets by non-verbal responses namely colouring, matching or drawing. Some of the nouns presented in Coyle and Gracia (2014)'s experiments were as follow: wheels, wipers, horn, door and bell.

In Coyle and Gracia (2014)'s study, little emphasis was attributed to participants' oral competence. Coyle and Gracia (2014) concluded that implementing songs in English classes is a solid methodology for L2 vocabulary memorization on account of songs' motivational nature. Nevertheless, the authors recognize that the study placed a greater emphasis on receptive vocabulary and a lesser emphasis on oral skills which, according to the them, could be a limitation of the study inasmuch speech and pronunciation are important facets of L2 learning to be exploited. Coyle and Gracia (2014) suggest that a pertinent method to remedy this discrepancy is to ask participants to orally complete missing parts of the song or encourage them to sing excerpts of the song which contribute to the L2 lexical retention.

Similarly, Uchihara and Clenton (2020) conducted a set of L2 vocabulary experiments with 46 international students with advanced level of L2 proficiency living in the U.K.

Participants' L2 vocabulary was administered both at the receptive level (The  $V\_YesNo$  test, which is one of the tests to be analyzed in the current Thesis) and at the productive level (an oral picture narrative).

In the  $V\_YesNo$  task, participants were shown both real words and nonsense words. They were solicited to mark "Yes" when they knew the meaning of the word on the screen and "Next" when they did not know or were not certain about the meaning of the words. As for the oral picture narrative, four comic strips were selected to elicit participants' speech and wherein attendees were requested to describe the images with a short-story in the L2 (English). The criteria adopted to gage examinees' L2 speech were as follow: fluency, vocabulary, grammar and pronunciation.

Uchihara and Clenton (2020) found that testees with high vocabulary sizes at the receptive level did not necessarily elicit lexically robust L2 words during speech. One possible answer for this chasm between satisfactory L2 vocabulary outcomes at the receptive level and lexically sophisticated oral production is due the absence of low-frequent words in speech in so far as individuals usually need not elicit low-frequent words in average conversations (UCHIHARA; CLENTON, 2020). The authors, notwithstanding, admit that in order to verify if large vocabulary size at the receptive level could correlate with lexically advanced speech, a broader range of L2 production activities could have been implemented.

Yeung *et al.* (2019) designed a set of experiments with 157 Chinese kindergarteners taking English classes as foreign languages with the intent of measuring participants L2 vocabulary. The materials adopted by the researchers were storybooks in which participants were required to work with vocabulary related to familiar topics namely animals, bodies, colors and shapes. Contrasted to the experiments in Coyle and Gracia (2014) in which the receptive vocabulary approach was the protagonist, Yeung *et al.* (2019) also included oral-skills centered activities in which participants were asked to whisper sentences in English to their peers. Implicit vocabulary instruction activities were also implemented wherein participants were read stories and engaged in activities in the L2 but without a direct focus on L2 vocabulary. Another variable was included: phonological awareness, which dialogues with the current study premise.

In conducting the set of experiments, the researchers concluded that explicit vocabulary instruction activities with a focus on oral competence are more effective for a better L2 lexical retention than IVI activities, inasmuch the latter emphasizes communicative aspects which is pertinent when learners possess some L2 lexical repertoire but not when students are at initial L2 lexical stages.

The authors also champion that working with a limited list of vocabulary and with words that do not deviate from students' routine predicts a more satisfactory retention. The authors, in a similar vein, conclude that an enhancement of L2 lexical repertoire contributes to the ability of manipulating phonemic part in the L2, that is, L2 phonological awareness.

Concerning IVI activities, Puimiège and Peters (2019) designed L2 vocabulary activities with 10-12 year-old Belgian participants who had not been immersed in L2 formal-instruction. The objective of the experiments was verifying to what extent extramural contact with the English language (informal contact with English language by listening music, playing games, watching TV shows and reading non-academic books) predicted children's performance in IVI experiments.

The researchers concluded that informal contact with the L2 does contribute to the L2 vocabulary enhancement. Puimiège and Peters (2019), also reasoned that cognateness, frequency and concreteness (i.e.: house; car) underlie a better L2 vocabulary apprenticeship. Considering the aforementioned premise, especially in relation to concreteness, the present experiment will entail words participants that can be related to participants' backgrounds.

Shintani (2011) designed a 16-month set of experiments with 36 Japanese children aged 6-8 with input (receptive vocabulary) and output (vocabulary production) tests with the objective of investigating which of both modalities predict better L2 lexical results. In the input activities, participants were requested to listen the teacher's commands in English and follow commands. The teacher said that the polar bear needed the battery and students had to find cards containing a picture of a polar bear and a picture of battery and math them. If students mischose the cards, they were given the opportunity to try again until they matched the correct cards.

Another input activity consisted of a bingo game in which students received cards containing pictures (familiar items as animals and objects participants were acquainted with) and the teacher called out each item and students should comprehend them and verified if they were compatible of the cards they had.

The output tests consisted of repetition tests in which participants were requested to repeat chorally what the teacher said and tests wherein participants were presented pictures and were solicited to correctly name them in the target language, which in this case was English. It is worth noting that participants performing input activities were not the same participants as those performing the output tests and vice versa.

Shintani (2011) concluded that there were not significant differences in terms L2 vocabulary acquisition between the input and the output group and that both group of

participants demonstrated interchangeably abilities. Notwithstanding, the author recognizes the input tests provided richer opportunities for L2 vocabulary retention than the output tests did, albeit the researcher admits that a greater number of participants would enables a richer analysis of the pros and cons of both receptive vocabulary experiments and production vocabulary experiments. Nonetheless, Shintani (2011) sustains that both forms of measuring L2 vocabulary are valid and can be implemented in EFL classes.

Andra *et al.* (2020) conducted a pool of L2 vocabulary acquisition experiments with 8 year-old German children. The experiments consisted of gesturing and pictures L2 vocabulary tests accompanied by L1 translation or explanation in the L2. In some experiments, the researchers uttered a L2 word and gestured it to facilitate participants' comprehension. In some experiments, the researchers uttered a L2 noun accompanied by its respective picture. Participants were requested to repeat the words and inform their meanings in German. The authors concluded that both methodologies rendered satisfactory L2 recall inasmuch participants demonstrated to have absorbed the novel words learnt in post hoc interventions. The picture-depiction dynamics is consistent with the initial premise of present study wherein it has been sought to assess participants' L2 vocabulary by means of picture-depiction. The gesturing dynamics is another pertinent dynamics to be adopted.

From these studies, we can conclude that implementing L2 vocabulary activities or tests by adopting ludic approaches is effective for young learners to better retain and enlarge their L2 lexical knowledge in so far as vocabulary size is another very important predictor of L2 vocabulary competence (BEGLAR; HUNT, 1999; MEARA; 2002; STOECKEL; MCLEAN; NATION, 2020;). We could also reason that a rigorous interface between L2 vocabulary assessments tests at the receptive level and L2 vocabulary assessed tests at the productive level is valid (UCHIHARA; CLENTON, 2020; COYLE; GRACIA, 2014).

#### 2.5 L1 PHONOLOGICAL AWARENESS AND L2 VOCABULARY LEARNING

Albeit the quantity of studies involving L1 phonological awareness and L2 vocabulary acquisition is scarce, some authors conclude that it is possible to establish an interface between these two variables. Durgunoglu, Nagy and Hancin-Bhatt (1993), Dickinson *et al.* (2004), Hu and Shuele (2005), Atwill *et al.* (2007), Verhoeven (2007), Hu (2008) and Zhao *et al.* (2017) sustain that there is a relation between L1 PA competence and L2 performance, including in terms of lexical knowledge. The experiments implemented by these investigators are discussed in the section below.

#### 2.6 L1 PA AND L2 VOCABULARY LEARNING: EMPIRICAL STUDIES

Durgunoglu, Nagy and Hancin-Bhatt (1993) designed L1 PA and L2 PA tests with 31 Hispanic first-graders living in the United States who had English classes. Aside the phonological awareness tests, participants were administered L2 (English) reading and activities. Albeit the L2 activities did not directly assess participants' L2 vocabulary as one of the objectives of the present study Durgunoglu, Nagy and Hancin-Bhatt (1993) L2 tests did include the identification of L2 words, inasmuch students were requested to recognize some L2 words by reading and to listening to some instructions in English so as to participate in a game.

The Spanish phonological awareness test consisted of segmenting, blending and matching words. In the segmenting task, infants' ability to divide words into phoneme, syllables and onset-rime units was gaged. In the blending task, subjects were asked to match the sounds at the beginning of words. They listened to a spoken word and were introduced alternatives that possibly began with the same sounds as the word uttered by the experimenter. Students were solicited to inform which word commenced with the same sounds introduced. The experimenters also implemented L2 PA test, but this particular item is beyond the scope of the present research.

Durgunoglu, Nagy and Hancin-Bhatt (1993), in line with Defior (2004)'s, ideas, hold that transparent languages such as Spanish and Czech benefit speakers in their PA competence. Concerning the cross-language transfer of phonological awareness and L2 activities, albeit the researchers did not establish a direct interface between L1 PA and L2 vocabulary, they concluded that an effective L1 PA training contributes a better performance in the L2 learning (which also encompasses vocabulary, although not in a direct manner), in particular in L2 reading activities.

Zhao *et al.* (2017) conducted a series of experiments with one hundred seventeen 4-5 year-old Spanish English bilingual children living in Texas, United States. The author did not explicate whether their L1 is Spanish or English, but inform that the majority of children were born in the U.S. and had contact with Spanish, which implies that these participants might have access to Spanish through their parents' influence.

The tests consisted of Spanish and English vocabulary tasks in which children were administered the subtest of Picture Vocabulary in Woodcock Johnson Tests of Achievement. Participants were solicited to point to the corresponding pictures of the vocables there were orally presented and name some pictures, too. This dynamics was implemented for both languages, albeit each language was measured separately.

The phonological awareness experiments in English and Spanish consisted of rhyming recognition, rhyming production, initial phoneme recognition, sentence segmenting and syllable segmenting. For example, infants were orally presented the word "box" and visually presented the images of a sock and of a mug and were asked to point to the picture of the word that rhymed with "box" (socks). The Spanish PA tests had the same format.

Zhao *et al.* (2017) reasoned that Spanish vocabulary and English vocabulary predict their respective PA abilities. As for cross-language transfer, that is, an eventual interface between L1 PA and L2 vocabulary or vice versa, Zhao *et al.* (2017) concluded that Spanish vocabulary and Spanish PA had an impact on English word reading.

Concordant with Zhao *et al.* (2017)'s study Kalia, Lane and Wilbourn (2018) also concluded that L1 PA is a predictor of L2 performance, including vocabulary. In their experiments, 95 children based in the southeast of the United States whose native languages were both English and Spanish, were administered English phonological awareness tests and English and Spanish receptive (not productive) vocabulary tasks. Contrasted to Zhao *et al.* (2017) study's Kalia, Lane and Wilbourn (2018)'s study did include Spanish phonological awareness tests. Nevertheless, the authors verified that an adequate L1 PA competence boosts a satisfactory lexical performance in both L1 and L2.

Hu and Schuele (2005) conducted a study with Chinese third graders learners of English to verify whether their L1 PA influenced their L2 vocabulary. The trials consisted of tests encompassing L1 words children were acquainted with, L1 words participants were not familiar with and L2 words. The authors reasoned that children with poor PA learned both L2 words and novel L1 words more slowly and less accurately than their higher PA counterparts. Nevertheless, Hu and Schuele (2005) recognize that assessing L1 PA and L2 vocabulary in children who possess a more proficient L2 level, could be more appropriate to establish an interface between L1 PA and L2 performance.

Hu and Schuele (2005) observe that discriminating segments that compose each word is easier for adults than for children and even for some adolescents. It is not saying, though, that children with a poor PA do not possess lexical knowledge. On the contrary. The authors state that children do tend to have a holistic lexical knowledge, that is, they do make distinctions between words, they are cognizant that words differ in terms meaning, stress, pitch, rhythm and duration. Yet, this lexical holistic knowledge, that is, this unabridged awareness of words does not permit that these young learners look at words in a more fine-grained fashion, which would be pivotal to perceive the nuances among sounds composing both L1 and L2 vocabulary.

Therefore, the Hu and Schuele (2005) champion that developing an effective L1 PA competence does contribute to a better performance in L2 PA and L2 vocabulary acquisition, whilst children with insufficient L1 PA do have limitations in accessing the segments of a foreign language. Notwithstanding, the authors underscore that these hindrances are more related to the comprehension and production of unknown L2 sounds. L2 sounds, conversely, that may be easily associated with the L1 sounds, are not usually a millstone for children with an insufficient PA. Hence, the refinement of L2 PA is shaped by a well-constructed L1 PA rather than L2 PA *per se*. The authors also highlight that being aware of L1 component sounds, facilitates children to apply the same awareness to the L2 segments.

Hu (2008) designed another PA study to verify whether the findings of the aforementioned studies persist. In this study, she investigated how L1 PA influences the rhythm of learning L2 (in this case, the English language) color vocabulary in Taiwanese Primary School children. She concluded that the acquisition of novel L2 color vocabulary was more protracted and less accurate for learners with poor L1 PA than for their counterparts with an acute L1 PA. Hu's study also consisted of soliciting participants to name familiar color words.

Participants with L1 poor PA also named each color slower than their peers with a better L1 PA. Notwithstanding, in this subpart of the trials, students with higher L1 PA did not outperform their L1 PA counterparts in accuracy. In fact, in terms of accuracy, their performance was comparable. In conducting this new pool of experiments, Hu (2008) once again reasoned that participants with an insufficient L1 PA had difficulties with L2 vocabulary. Nevertheless, the author recognizes that poor PA may inhibit the initial stages of L2 vocabulary acquisition but it does not signify that this problem is irredeemable.

López and Greenfield (2004) claim that a fruitful L2 performance hinges on a satisfactory, well-established L1 literacy. The investigators developed a series of L1 and L2 PA and L2 vocabulary experiments involving 4-5 year-old Hispanic children living in Miami, United States. A Phonological Sensitivity Test was designed to assess participants PA in both Spanish and English. The phonological skills measurement constituted rhyming, alliteration, which is a frequent aspect in the English language (LINDSTROMBERG; BOERS, 2008) and sentence segmenting. In one of the tests children were presented with three pictures (i.e. door, floor and nose) and were asked to inform which picture rhymed with "door".

In the Alliteration Matching Test, children were presented with a new series of three pictures, namely "car", "cat" and "swing" and were solicited to name these pictures in English and say which words began with the same sound. The authors sustain that implementing constant PA training tests does afford a better L2 development.

Dickinson *et al.* (2004) state that an initial development of lexical repertoire results in a more sensitive PA, that is, being in contact with a considerable quantity of words since the early speech at home is beneficial for children to attain a better PA performance when they are in literacy process in the classroom. The authors also argue that early acquired words permit a more refined PA achievement than their later or unusual words counterparts.

Dickinson *et al.* (2004), in designing a study akin to López and Greenfield (2004)'s, with a group of low-income Hispanic children living in the U.S. who had L1 PA assessed by means of rhyming, early writing and alphabetic knowledge also concluded that L1 and L2 PA do exert an influence on the L2 development. The authors reasoned that using Spanish and English interchangeably in classes which, *a priori* English should be the only language, may be helpful for these underprivileged young learners living away from their homeland to refine PA in both languages.

Verhoeven (2007) implemented a series of studies with early Turkish-Dutch bilingual kindergarteners living in the Netherlands to investigate the relations between early bilingualism and PA. The PA tests constituted tests with Dutch items. The tests encompassed rhyming tasks in which children heard a word, were presented with four pictures (one of them illustrating something that rhymed with the word previously presented) and were requested to inform the picture containing the rhyming word; a word objectification test in which children were orally presented with word pairs and were solicited to judge which word was the longest and a phoneme segmentation test wherein participants were requested to analyze words into their phonemes.

Participants were also administered an Auditory Discrimination Test wherein minimal phonemic differences in monosyllabic words in the languages under consideration were assessed. Participants were requested to repeat minimal lexical pairs that differ in one phoneme. The total test score is the quantity of word pairs participants reproduced correctly.

In terms of lexical measurement, participants were also administered a series of vocabulary tests. In the Receptive Vocabulary Test, participants listened to spoken words while were presented with four pictures, one of them containing the correct meaning of the word. A total of 60 items with augmenting difficulty was presented and if a participant did respond correctly to five consecutive items, the task was ended. In the Productive Vocabulary Test (30 nouns and 10 verbs), subjects were presented with pictures of objects and actions and were solicited to describe them. A total of 40 items with augmenting difficulty were depicted and when participants did not respond to five consecutive items, the testing was concluded.

Participants were also administered a Function Word Comprehension Test in which their comprehension of reference to concepts was measured in the following categories: color (15 items), shape (15 items), quantity (15 items), space (10 items) and cause-effect (10 items). The children were presented with three pictures and orally read a stimulus sentence that corresponded to one of the pictures.

Subjects were also administered Story Comprehension Test with the presentation of orally presented stories in Dutch and Turkish. Each test encompassed four short texts. The experimenter read each text and asked participants five questions about the information explicitly and implicitly presented in the text.

In order to tap the relations between bilingualism and PA, children with high proficiency in both Turkish and Dutch were compared to children with a high level of proficiency in one of the languages and to participants with a low proficiency in both languages.

Verhoeven (2007) reasoned that participants who showed high levels of L1 and L2 competence produced relatively higher scores on the four PA tests, especially in the phoneme segmentation test. Thence, the investigator concluded that bilingualism development does contribute to PA development. Verhoeven (2007), however, recognizes that there are some limitations in the study as the fact that 75 is not a great number of participants to get a more accurate conclusion and the fact that the PA tests were assessed in Dutch. The author admits that a L1-L2 series of tests could have been conducted to get a broader perception of the cross-language transfer of PA.

Atwill *et al.* (2010), likewise, ran a set of experiments with 68 kindergarteners (mean age 69 months). These children were L1 Spanish speakers living in the United States attending public schools. The authors assessed children's L1 and phonemic abilities and L1 and L2 receptive vocabulary. Albeit a direct relation between L1 phonemic abilities and L2 receptive vocabulary has not been found, children who presented a satisfactory performance in the assessment of L1 abilities also presented an expected performance on the assessment of the L2 abilities, including receptive vocabulary.

Uchikoshi (2019), in running a set of experiments with Spanish, English and Cantonese English bilinguals in the United States, found a positive effect/influence of English vocabulary knowledge on phonological awareness skills at the beginning of kindergarten. According to Uchikoshi (2019), bilinguals who started kindergarten with a broader English vocabulary also had high phonological awareness abilities.

Another relevant contribution for this section stems from Lockiewicz, Sarzata and Lipowska (2018)'s study with Polish pre-school (3-5 years old) taking regular English classes

in their school curriculum in Poland. Lockiewicz, Sarzata and Lipowska (2018) interestingly found that participants' L1 phonological awareness predicted English oral language competence. The authors also verified that letter identification restricted to Polish alphabet predicted English oral skills of these Polish preschoolers learning English as foreign language.

Albeit the aforementioned authors presented some positive interfaces between L1 PA and L2 vocabulary acquisition, Nicolay and Poncelet (2013)'s experiments assessing phonological abilities, including PA awareness and their relation with L2 vocabulary among French kindergartener learners of English as a foreign language did not fully corroborate this premise. Although the experimenters expected a relationship between L1 PA and L2 vocabulary, in their study, L2 vocabulary performance was not underpinned by L1 PA. Rather, other variables contributed to a satisfactory L2 vocabulary performance, to wit, auditory selective attention and flexibility.

Nicolay and Poncelet (2013)'s findings are equally important as those previously reported and they impact the current study in the sense that it makes the experimenter take into the consideration the possibility that L1 PA and L2 vocabulary acquisition might not always be two linearly correlated variables.

Given that the current thesis will analyze assessment tests, a summary of the experiments reported in this chapter is pertinent. Different types of relevant procedures to assess L1 PA and/or L2 were ran namely the implementation of segmenting, blending and matching words by Durgunoglu, Nagy and Hancin-Bhatt (1993), the application of the vocabulary test entitled Picture Vocabulary in Woodcock Johnson Tests of Achievement by Zhao *et al.* (2017) and the study developed by Lopez and Greenfield (2004) which consisted of the employment of phonological sensitivity test assessing participants' PA in both English and Spanish and the vocabulary test named Alliteration Matching Test.

Considering the characteristics and the importance of PA and L2 vocabulary learning and the experiments involving these variables, we can conclude that albeit some relationship between L1 PA and L2 vocabulary can be found, these interfaces are weak or moderate but not strong. A pertinent suggestion to, in the future, verify if a possible strong association between L1 PA and L2 vocabulary holds true is the implementation more studies assessing L1 PA and L2 vocabulary. After the presentation of the theoretical and empirical contributions to this debate, we are now moving into the next section.

#### **CHAPTER III**

#### **METHOD**

The present chapter outlines in detail the methodological procedures to be adopted in this study. It is organized into three sections. In section 3.1, the general objective, specific objectives and research questions are presented. In section 3.2, the instruments for the purposes of the present study are described, which includes the analysis of the L1 phonological awareness tests (see Table 1) and the analysis of the L2 vocabulary tests (Table 2). In section 3.3 data analysis will be presented.

## 3.1 GENERAL OBJECTIVE, SPECIFIC OBJECTIVES AND RESEARCH QUESTIONS

#### **GENERAL OBJECTIVE**

The general objective of the present study is to carry out a descriptive analysis of phonological awareness tests in Portuguese as L1 and of vocabulary tests in English as L2 in order to determine the general characteristics of the two types of tests.

### SPECIFIC OBJECTIVES

The specific objectives of the present study are:

- 1. To determine how the L1 (Portuguese) phonological awareness tests *Prova de Consciência Fonológica por Produção Oral (PCFO)*, proposed by Capovilla and Capovilla (1998) and *CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial*) designed by Lamprecht *et al.* (2003) define and measure phonological awareness, by means of the analysis of conceptual and validity issues, the structure and organization of the tests and the stimuli.
- 2. To determine how the L2 vocabulary tests *Vocabulary Level Tests* (*VLT*) and the vocabulary size tests *V\_YesNo de* fine and assess vocabulary in L2, by means of the analysis of conceptual and validity issues, the structure and organization of the tests and the stimuli used in each test.

# RESEARCH QUESTIONS

The present study will pursue the following research questions:

RQ1: How do the phonological awareness tests selected for analysis (*Prova de Consciência Fonológica por Produção Oral – PCFO* and *CONFIAS – Consciência Fonológica: Instrumento de Avaliação Sequencial*) define and measure phonological awareness?

RQ2: How do the L2 vocabulary tests selected for analysis (Vocabulary Level Tests – *VLT* and *V YesNo*) define and measure L2 vocabulary?

### 3.2 INSTRUMENTS

In this section I will present the instruments devised for the purposes of the present study.

### 3.2.1 Analysis of the L1 phonological awareness tests

In order to carry out the descriptive analysis of *Prova de Consciência Fonológica por Produção Oral (PCFO)* and *CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial)*, I devised a questionnaire consisting of 4 main categories of analysis, each with specific questions. The questionnaire is presented in Table 1 and it is based on the ideas of the authors discussed below.

**Table 1** – Questionnaire for analysis of two tests of phonological awareness in Portuguese as L1.

	L1.
<b>Question Types</b>	Questions for analysis
	a) When was the test made available to the public?
Conceptual issues	b) How does it define phonological awareness?
	c) Does the test contain screening measures (i.e. rapid
	naming), thus separating low performers and high
	performers?
	d) Does the test encourage progress-monitoring measures?
	a) How is the test organized?
Structure/Organization	b) How many tasks are there in the test?
	c) What types of tasks were designed?
	d) What types of skills (productive or receptive) are
	assessed? Are examinees tested at the receptive level
	(rhyming recognition activities) or at the productive level
	(rhyme production activities)? Is the same scoring system applied for both?
	e) Are examinees tested individually or in groups?
	f) Are there instructions on how to apply the tests?
	a) What age group is the test aimed at?
Validity	b) Is the test applied for examinees from different
	backgrounds and socioeconomic status?
	c) What are the scoring criteria and procedures?
	a) Does the test explain the criteria adopted to select the
	linguistic stimuli? Are low-frequent words or high-frequent

Stimuli	words employed? Is the word-length taken into consideration? Are pseudo-words employed?
	b) Does the test consider the examinees' experience with
	other languages, i.e., bilingualism?
	c) Does the test contain pictorial stimuli measures or verbal
	stimuli measures? Is there a difference between both
	stimuli?

These categories are related to objective 1 and research question 1, both targeting the construct of phonological awareness. The category labelled Conceptual Issues addresses the publication of the tests, the definition of phonological awareness adopted by *Prova de Consciência Fonológica por Produção Oral (PCFO)* and *CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial)* and whether these tests contain screening measures and progress-monitoring measures. It is important to determine if tests that assess abilities such as phonological awareness have both screening measures and progress-monitoring measures because they are important to any response to intervention (RTI) model (MELLARD; MCKNIGHT; WOODS, 2009).

According to Mellard, Mcknight and Woods (2009), screening measures would ensue in the solid identification of students who are at risk for learning and all students who are not at risk of learning. Therefore, screening measures are pivotal for the prevention of academic and behavioral hindrance (MELLARD; MCKNIGHT; WOODS, 2009). As for progress monitoring measures, Mellard, Mcknight and Woods (2009) maintain that it is a formative appraisal to determine if students are profiting from instruction and if these benefits are manifesting at a satisfactory pace.

Mellard, McKnight and Woods (2009) also sustain that an effective progress-monitoring assessment should be sensitive to the effects of intervention and thus should relate to the tasks wherein participants have received the instruction. Petersen and Spencer (2012), in a similar vein, advocate that an effective education for children requires tailored attention wherein children's progress is thoroughly monitored and adjustments are made according to their response. Therefore, these authors' premises reinforce the necessity of verifying if *PCFO* and *CONFIAS* contemplate screening measures and progress-monitoring measures in their repertoire of tasks.

The category labelled Structure/Organization addresses how the test is organized, how many tasks are in the test, what types of tasks were designed, what types of skills are assessed (receptive or productive skills), whether participants are tested individually or in groups and if there are instructions on how to apply the tests. In the present study, questions related to the to

the organization of the test and the types of task that were designed were inspired by Lane *et al.* (2002)'s ideas. Some of the PA activities proposed by Lane *et al.* (2002) are as follows:

- a) tapping words: students can be instructed to tap for each word uttered by the teacher or the examiner.
- b) counting and tallying words: according to Lane *et al.* (2002) this dynamics is interesting on account of its great degree of cognition.
- c) tapping syllables: participants are taught to tap out the number of syllables in a word. According to the authors, this activity requires auditory attention.
- d) segmenting syllables: children are taught to segment multisyllable words into individual syllables and the authors contend that it can begin to be taught in kindergarten.
- e) rhyme recognition: Lane *et al.* (2002) propose that in order to make the activity more appealing, rather than the examiner simply providing a pair of words they can inform children that the words "cat" and "sat" have an "at" and add the word "hat" to check if students identify the rhyme and rhyme generation. Lane *et al.* (2002) bolster that the ability of generating words that rhyme with a given word is a quite challenging-yet-excellent of a child's ability to apply phonological competence.
- f) rhyme oddity detection: children are asked to indicate which word in a list of words does not rhyme with the other words of the list.
- g) rhyme matching: students are requested to indicate which word rhymes with a given target word.
- h) sound detection: The teacher/examiner says a target phoneme and students are instructed to begin or end with that sound.
- i) sound matching: students are asked to match sounds in a selection of words elicited by the teacher.

As for the question related to participants being assessed individually or in groups Lane *et al.* (2002) affirm that individual assessments are effective. Lane *et al.* (2002) also sustain that repeated observation by an *au fait* teacher of the child's ability to perform PA tasks is quite useful.

The necessity of screening and monitoring measures in PA assessments highlighted by Mellard, Mcknight and Woods (2009); Petersen (2012) and Chard and Dickson (1999) motivated me to formulate some the questions about PA assessments. Lane *et al.* (2002)'s proposals about the types of PA activities, in turn, boosted me to attempt to verify the most appropriate types of tasks to be designed for the assessment of phonological awareness and the importance of reconciling the assessment of PA abilities both at the receptive levels and at the

productive levels. In assessing PA, Lane *et al.* (2002), interestingly, propose that teachers also implement informal assessment of PA skills by encouraging students to think of words that contain a given quantity of syllables or phonemes. The authors sustain that combining informal sound play and formal phonological awareness instruction addresses the varied needs in primary classroom practices.

As for the category labeled stimuli, Chard and Dickson (1999) sustain that the implementation of pseudo-words predicts which kindergartener is inclined to demonstrating growth in blending and segmenting. The authors propose the application of five nonwords. With the ideas of the aforementioned authors the questions about PA assessments tests were formulated and they will be answered in Chapter IV.

# 3.2.2 Analysis of the L2 vocabulary tests

In order to carry out the descriptive analysis of the *Vocabulary Levels Tests* and of the vocabulary size test named *V\_YesNo Test*, I also devised a questionnaire consisting of 4 main categories of analysis, each with specific questions. The questionnaire is presented in Table 2:

**Table 2** - Questionnaire for analysis of two tests of L2 vocabulary learning tests. **Question Types Questions for analysis** a) When was the test made available to the public? Conceptual issues b) How does it define word knowledge? c) What domains of vocabulary learning are emphasized? Does the test emphasize the form-meaning connections or other levels of word knowledge are taken into consideration i.e. word associations, collocations, word parts, concepts and polysemy? d) Does the test focus on a specific category of words, such as verbs or adjectives or nouns? e) Does the test encourage progress-monitoring, that is, are teachers or experimenters instigated to accompany participants' learning gains in the long term? a) How is the test organized? Structure/Organization b) How many tasks are there in the test? c) What types of tasks were designed? d) What types of skills (productive or receptive) are assessed? Are examinees tested at the receptive level (vocabulary recognition activities) or at the productive level (vocabulary production activities)? e) What is the scoring system of the test? f) Are examinees tested individually or in groups? g) Are there instructions on how to apply the tests?

Validity	<ul><li>a) What age group is the test aimed at?</li><li>b) Can the test be applied to examinees from different backgrounds and socioeconomic status?</li><li>c) What are the scoring criteria and procedures?</li><li>d) Does the test determine the minimum number or percentage of corrected questions the examinees are expected to answer?</li></ul>
Stimuli	<ul> <li>a) Does the test explain the criteria adopted to select the linguistic stimuli? Are low-frequent words or high-frequent words employed? Are pseudo-words employed?</li> <li>b) Does the test contain pictorial stimuli measures or verbal stimuli measures? Is there a difference between both stimuli?</li> <li>c) Does it encourage the assessment of vocabulary size so as to verify if the participants have enough vocabulary to be able to perform some tasks as reading a text or a book?</li> </ul>

Questions c and d of the conceptual issues category were motivated by Schmitt, Nation and Kremmel (2019), who argue for the implementation of a rigorous criterion in choosing the words and what could be counted as words when selecting the stimuli of vocabulary tests. Question e of the same category, likewise, was inspired by Schmitt, Nation and Kremmel (2019)'s ideas inasmuch the authors bolster that specifying the type of learners and educational context the tests were designed for contribute for both the development of the tests and for the validation whether it meets the specifications.

Schmitt, Nation and Kremmel (2019) also champion the monitoring of test takers' behavior by interviewing them or giving them feedback so as to verify how scores translate the relevant knowledge participants have acquired. This premise is in line with question e of the conceptual issue category.

Still in the conceptual issue category, Zhang and Koda (2017) defend the importance of bearing in mind what word knowledge signifies; what can be considered as a separate word; what type of words must be taken into consideration before selecting assessment criteria; the importance of adopting high-frequent words and participants' backgrounds. These ideas are in consonance with questions of the four categories of the present dissertation.

As for the validity category, questions c and d were inspired by Schmitt, Nation and Kremmel (2019) insomuch as the authors uphold that defining a purpose on how to evaluate the scores contribute to a better understanding of what the numbers or percentage represent in terms of learning progress.

Coxhead *et al.* (2018)' study has prompted the formulation of question f of the Structure/Organization category, as according to the authors when participants are tested individually they do not tend to deviate attention from the test and, consequently, their scores are more compatible with their knowledge.

Still concerning the Structure/Organization category, question d was inspired by Schmitt (2014) in so far as according to him the dichotomy between receptive versus productive mastery results in a great ecological validity because the fact the learners are able to comprehend the lexical items when listening or reading a material does not necessarily mean that these learners will be able to properly reproduce these items in a conversation or in a writing activity.

All the categories namely Conceptual issues, Structure/organization, Validity and Stimuli contain questions that stem from Bogaards' ideas (2000), especially question c of *stimuli* category and question c of *conceptual issues* category, wherein the authors emphasize the call for establishing what knowing a word means. Bogaards (2000) also sustains that considering that word knowledge is a broad construct, selecting the appropriate materials and effective procedures to arrive at a solid outcome is pivotal. Given that lexical knowledge manifests in different avenues, more than one way of assessing L2 vocabulary competence is legitimate. Therefore, Bogaards (2000) advocates that different types of tests are needed to suit the ranged types of demands. Such a premise is jibes with question b of validity category.

In order to answer the research questions of the present study, a qualitative analysis will be carried out based on the instruments presented in section 3.2.

This analysis will be underpinned by the ideas and findings of previously conducted studies which are effective for the scrutiny of both L1 PA tests and L2 vocabulary acquisition tests.

#### 3.3 DATA ANALYSIS

The analysis of the PA and vocabulary tests selected will be of a qualitative (descriptive and interpretative) nature. The categories presented in Tables 1 and 2 will be used as a guide to the analysis.

#### **CHAPTER IV**

#### RESULTS AND DISCUSSION

This chapter aims at presenting the results of the analysis of the two L1 PA tests selected - Prova de Consciência Fonológica por Produção Oral (PCFO), proposed by Capovilla and Capovilla (1998) and CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial), designed by Lamprecht et al. (2003) and the two L2 vocabulary tests selected -The Vocabulary Levels Test (VLT) by Paul Nation in 1983 and V YesNo vocabulary size test by Meara (1992). The PA tests were selected because of the following reasons: they were developed by Brazilian researchers and experts in PA, literacy and speech therapy and they were designed to be applied in Brazilian schools. The L2 vocabulary assessment tests, in turn, were selected because they are free, they are readily available and they were designed by experts in vocabulary learning. Section 4.1 and its subsections present the analysis of the L1 PA test Prova de Consciência Fonológica por Produção Oral (PCFO) by Capovilla and Capovilla (1998). Section 4.2 and its subsections, in turn, present the analysis of CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial), developed by Lamprecht et al. (2003). Again, the analysis of these tests is based on the categories presented in Table 1 (Chapter 3, section 3.2.1). Section 4.3 presents a general discussion of the results of the analyses. Finally, section 4.4 presents the analysis of the two L2 vocabulary acquisition tests – The Vocabulary Levels Test (VLT) by Nation (1983) and V YesNo vocabulary size test by Meara (1992).

In order to answer the research questions of the present study, a qualitative analysis will be carried out based on the instruments presented in Chapter III, section 3.2.

4.1 DESCRIPTIVE ANALYSIS - A QUALITATIVE ANALYSIS OF THE L1 PA TEST NAMED *PROVA DE CONSCIÊNCIA FONOLÓGICA POR PRODUÇÃO ORAL* (CAPOVILLA AND CAPOVILLA, 1998).

### 4.1.1 Conceptual issues

Question a: When was the test made available to the public?

According to Dias *et al.* (2012) the *PCFO* test was originally published and made available to the public in 1998. Initially, Capovilla and Capovilla (1998) applied the *PCFO* test to 175 students (3-9 years old) of a private school in Marília, State of São Paulo – Brazil, with

the intent of assessing the development of varied literacy abilities from preschool through second grade. The results obtained indicated that participants' performance in PA increased as students moved to the next grade (DIAS *et al.*, 2012).

# **Question b**: How does it define phonological awareness?

Dias *et al.* (2012, p. 100) define PA as follows: "children's ability to manipulate the sounds of speech thus orally expressing the result of this manipulation" (my translation)<sup>1</sup>.

**Question c:** Does the test contain screening measures (i.e. rapid naming), thus separating low performers and high performers?

The *PCFO* test has a psychometric nature. Moreover, low proficient children at *PCFO* are prone to presenting insufficient performance in the reading activities as well (DIAS *et al.*, 2012).

The aforementioned authors mention results of a study conducted by Capovilla, Dias and Montiel (2007) wherein a screening measure was applied to 1<sup>st</sup>-4<sup>th</sup> grade-students of a public school of São Paulo. Initially, 394 children were tested (their age varied from 6-15 years old). Due to the age mismatch the number of participants in the sample was reduced to 363. With this reduction students' age varied from 6-10 years old. Statistical analyses were performed to assess standard performance in *PCFO* total score and its subtests. There was a significant score increase from 1<sup>st</sup>-2<sup>n</sup>d and from 2<sup>nd</sup>-3<sup>rd</sup> grade, thus corroborating improvement in children's achievement as they moved to the next grade.

Therefore, it can be inferred that *PCFO* test encourages screening measures inasmuch the test establishes a comparison between low-proficient and high-proficient participants.

#### **Question d:** Does the test encourage progress-monitoring measures?

Dias *et al.* (2012) state that the *PCFO* test encourages progress-monitoring measures. The authors report studies conducted by Capovilla and Capovilla (1998) which reveal an increase in PA students' performance in accordance with their school year and this increase was defining for their total score and for all of the subtests of *PCFO*. As for students' age group, Dias *et al.* (2012) mention a study conducted by Capovilla *et al.* (1998) which advocates that participants' age plays an important role in their performance both in the total score and each subtest isolately.

<sup>&</sup>lt;sup>1</sup> "... a habilidade das crianças de manipular os sons da fala, expressando oralmente o resultado dessa manipulação".

In terms of Conceptual Issues, the analysis of the *Prova de Consciência Fonológica por Produção Oral (PCFO)* indicates that since its publication by Capovilla and Capovilla (1998) this test boosted some studies including primary school children that contributed for a better comprehension about literacy and reading development.

For instance, an experiment conducted by Capovilla, Dias and Montiel (2007) evaluated an important aspect for the conceptual issues, such as screening measures. In this study these authors established a comparison between participants' low-proficiency and high-proficiency thus revealing a meaningful increase in PA students' performance in accordance with their school year. Besides this information, Dias *et al.* (2012) report a PCFO research conducted by Capovilla *et al.* (1998) in which it can be found that results represent a significant effect upon age throughout months and years in both the total score and each subtest encouraging progress-monitoring measures.

## 4.1.2 Structure/Organization

**Question a:** How is the test organized?

The PCFO test is organized into subtests. Each subtest is divided into items made of training tests and the tests *per se*.

**Question b:** How many tasks are there in the test?

PCFO test contains 10 (ten) subtests.

**Question c:** What types of tasks were designed?

The *PCFO* test contains subtests that are presented and described in detail below:

- Syllabic synthesis (*Síntese silábica*) participants are expected to merge the syllables uttered by the examiner to form the correct word as can be seen in the following examples.

```
/lan/- /che/ \Longrightarrow /lanche/;
```

 $/pe/-/dra/\Longrightarrow/pedra/.$ 

- Phonemic synthesis (*Sintese fonêmica*): children are expected to merge the phonemes spoken by the examiner into a real word, as in the following examples:

```
/<sub>S</sub>/-/ó/⇒/<sub>S</sub>ó /;
```

 $/g/-/a/-/t/-/o/\Longrightarrow/gato/.$ 

- Rhyme (*Rima*): out of three words spoken by the examiner, children must identify two of these words that end with the same sound. See the following examples:

```
/queijo/, /moça/, /beijo/ \implies/queijo/, /beijo;
```

/até/, /bola/, /sopé/⇒/até/, /sopé/.

- Alliteration (*Aliteração*): out of three words spoken by the examiner, children must identify two of these words that start with the same sound. See the following examples:

```
/boné/, /rato/, /raiz/;
```

/inveja/, /inchar/, /união/\impsi/inveja/, /inchar/.

- Syllable segmentation (Segmentação silábica): in this subtest children are expected to decompose the syllables of the words spoken by the examiner, as the examples below:

```
/bola/⇒/bo/-/la/;
/lápis/⇒/lá/-/pis/
```

- Phonemic Segmentation (*Segmentação fonêmica*): children are requested to decompose the phonemes of the words uttered by the examiner, as can be shown below:

```
/pé/⇒/p/-/é/;
/casa/⇒/c/-/a/-/s/-/a/.
```

- Syllable manipulation (*Manipulação silábica*): participants must add and remove the syllables of a word and inform which word remains. Check the examples below:

```
adicionar/rrão/ ao fim de /maca/⇒/macarrão/; subtrair/sa/do início de /sapato/⇒/pato/.
```

- Phoneme manipulation (*Manipulação fonêmica*): students must add and remove the phonemes of a word and inform which word remains. Check the examples below:

```
adicionar /r/ no fim de /pisca/ ⇒/piscar/;
subtrair /f/ do início de /falta/⇒/alta/.
```

- Syllable transposition (*Transposição silábica*): examinees are expected invert the syllables of a word and inform the new word, as the following examples show:

```
/boca/⇒/cabo/;
/lobo/⇒/bolo/.
```

- Phoneme transposition (*Transposição fonêmica*): examinees are expected invert the phonemes of a word and inform the new word, as the following examples depict:

```
/olá/⇒ /alô/;
/olé/⇒ /elo/.
```

**Question d:** What types of skills (productive or receptive) are assessed? Are examinees tested at the receptive level (rhyming recognition activities) or at the productive level (rhyme production activities)? Is the same scoring system applied for both?

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In relation to the abilities assessed, the *PCFO* test measures children's competence of

manipulating the segments of sounds, that is, it evaluates participants at the productive level. It

also gauges the ability of participants recognizing phonological aspects of words (i.e. rhyming,

alliteration and phoneme transposition), thus, rating participants at the receptive level.

**Question e**: Are examinees tested individually or in groups?

The *PCFO* test was designed to be tested individually. Seabra and Capovilla (2012),

importantly, add that the PCFO test can be applied by psychologists, neuropsychologists,

pedagogues, speech therapists, education professionals and healthcare practitioners.

**Question f:** Are there instructions on how to apply the tests?

The *PCFO* test contains instructions on how to apply the tests. In this respect, according

to Seabra and Capovilla (2012), PCFO test presents a detailed explanation about the training

items and the official exercises. It allows the examiner to repeat each item to examinees if

necessary, to write the examinees' answers on the Folha de Registro de Resposta and assessing

students' performance in both the full test and in each subtest separately.

After answering the questions related to Structure and Organization I can reason that

analyzing topics such as number and types of tasks that were designed, number of participants

per task and the instructions on how to apply them are utmost relevance for the application of

a given PA test.

In this regard, Seabra and Capovilla (2012) present a thorough guidance on how to apply

the PCFO test containing examples together with the subtests. Thus, considering the set of

instructions presented by the authors I can conclude that understanding these constructs is

helpful for both examiners and examinees' performance.

4.1.3 Validity

**Question a:** What age group is the test aimed at?

The PCFO test is aimed at 3-14 year-old individuals.

Question b: Is the test applied for examinees from different backgrounds and

socioeconomic status?

Dias, Trevisan and Seabra (2012) state that the standardization of PCFO test was

applied to public schools of the State of São Paulo – Brazil. This standardization encompassed

middle class and lower middle class children (3-14 years old). The number of children of this

sample was 699. Based on this information, it can be inferred that *PCFO* test suits varied socioeconomic status individuals. Moreover, with respect to the application of *PCFO* test the authors affirm that there were no children with any sensorial disorders.

**Question c:** What are the scoring criteria and procedures?

In the *PCFO* test the number of total items is 60 (sixty). Out of these 60 items, 20 (twenty) items were designed for training (two items per question). The remaining 40 (forty) items were developed for application.

As for the scoring, the *PCFO* test attributes participants 1,0 (one) point for each correct answer, 0 (zero) point for each incorrect answer and 0,5 (half) point for partially correct answer and the total score is 40 (forty). For example, according to Seabra and Capovilla (2012), when the examiner applies the *PCFO* test they must fill the *Folha de Registro de Respostas* and attributes participants the corresponding score. For instance: in the *segmentação fonêmica* subtest, the examinee is expected to decompose the phonemic fragments of the word *casa*. If they decompose /casa/=/c/-/a/-/s/-/a/ this is considered a correct answer (1,0 point). Nevertheless, according to Seabra and Capovilla (p. 117) if students decompose /casa/=/c/-/asa/ this is a partially correct answer (0,5 point) which decreases participants' score.

After answering the questions about Validity category I conclude that Dias, Trevisan and Seabra (2012) depict important data about the validity of *PCFO* test. In line with this, the authors' outcomes of the standardization encompass data about number of participants', group age and different background and socioeconomic status. Moreover, the authors feature scoring tables to guide the standardization with results obtained in each subtest developed. Therefore, in my opinion, this pool of information accounts for the validity of *PCFO* test.

#### 4.1.4 Stimuli

**Question a:** Does the test explain the criteria adopted to select the linguistic stimuli? Are low-frequent words or high-frequent words employed? Is the word-length taken into consideration? Are pseudo-words employed?

Seabra and Capovilla (2012) do not explain the criteria adopted for the selection of the linguistic stimuli for the *PCFO* test, nor do they mention low-frequent words and high-frequent words as some of the criteria for the elaboration of the *PCFO* test. In this respect, in analyzing the *Folha de Aplicação* of *PCFO* test I can infer that words like *gelatina* and *elo* are among the low-frequent words, and that *casa* and *mãe* are among what we could call high-frequent words. In the same vein, I can reason that as for the word-length, the test mostly presents short words

albeit some long words are inserted (e.g., *bicicleta*, *macarrão*). In relation to the employment of pseudo-words, after my analysis I found that the test does not include pseudo-words.

**Question b**: Does the test consider the examinees' experience with other languages, i.e., bilingualism?

The *PCFO* test does not inform or mention examinees' experience with other languages as one of the defining criteria for the linguistic stimuli.

**Question c:** Does the test contain pictorial stimuli measures or verbal stimuli measures? Is there a difference between both stimuli?

*PCFO* test does not contain pictorial stimuli measures. However, it does contain verbal stimuli. In analyzing the *Folha de Aplicação* of the *PCFO* test it is possible to find some examples of verbal stimuli (Seabra and Capovilla, 2012, p. 119): "Syllable segmentation – Instructions: I am going to say a word and now you are going to pretend to be a robot by repeating the word very slowly, speaking each part separately" (my translation).<sup>2</sup>

Another example of verbal stimuli on Seabra and Capovilla's work is on page 120: "Phoneme manipulation – Instructions: Once I add or remove sounds of a word, you should say what new word we have" (my translation).<sup>3</sup>

Considering that the *PCFO* test does not contain pictorial stimuli measures it is not possible to establish a difference between both stimuli.

Albeit Capovilla and Capovilla (1998) do not expose the criteria adopted to select the linguistic stimuli (e.g. low-frequent and high-frequent words; pictorial and verbal stimuli) by means of the analysis of *Folha de Aplicação* of *PCFO* test I can interpret that there are some low-frequent words and some high-frequent words. Notwithstanding, I did not find pseudowords. Nevertheless, although linguist stimuli in *PCFO* test are not salient I can deduce that they play an important role to predict literacy.

After the analysis of *PCFO* test now we are moving into the next section which is the analysis of another PA test, named *Consciência Fonológica: Instrumento de Avaliação Sequencial (CONFIAS)* proposed by Lamprecht *et al.* (2003).

<sup>&</sup>lt;sup>2</sup> Segmentação Silábica - Instruções: Vou dizer uma palavra, e agora você é quem vai fingir ser o robô, repetindo a palavra bem devagar, falando cada parte separadamente (Seabra and Capovilla, 2012, p. 119).

<sup>&</sup>lt;sup>3</sup> Manipulação Fonêmica – Instruções: Você vai dizer como fica uma palavra quando se coloca (ou se tira) um pedaço (Seabra and Capovilla, 2012, p. 120).

4.2 DESCRIPTIVE ANALYSIS – A QUALITATIVE ANALYSIS OF THE L1 PA TEST NAMED CONFIAS – CONSCIÊNCIA FONOLÓGICA: INSTRUMENTO DE AVALIAÇÃO SEQUENCIAL (LAMPRECHT et al., 2003).

In order to carry on this qualitative analysis of phonological awareness tests, in this section a study about the test named *CONFIAS* (*Consciência Fonológica: Instrumento de Avaliação Sequencial*) developed by Lamprecht *et al.* (2003) will be made. Lamprecht has PhD in Applied Linguistics and is the President of *Centro de Estudo sobre Aquisição e Aprendizagem da Linguagem - CEAAL/PUCRS* and an assistant professor at *Programa de Pós-Graduação em Letras* of *PUCRS* (LAMPRECHT *et al.*, 2003).

# 4.2.1 Conceptual issues

**Question a:** When was the test made available to the public?

According to Lamprecht *et al.* (2003), the first version of *CONFIAS* was elaborated in 1998 by a group of pedagogues with the intent of being applied by psychopedagogues, speech therapists and psychologists based on theoretical studies and empirical studies about phonological awareness (PA). Subsequently, *CONFIAS* test was piloted in March/April of 1999 in a private school in Porto Alegre/RS-Brazil in a sample with 16 (sixteen) children whose ages ranged from 5 to 7 years old. In the pilot version, *CONFIAS* consisted of ten items at the syllabic level and ten items at the phonemic level.

As Lamprecht *et al.* (2003) point out, after the analysis of the pilot version *CONFIAS* underwent some adjustments and the first validation was in June, 1999, of which results were rigorously analyzed by cross-curricular staff giving rise to the current version of *CONFIAS*.

#### **Question b**: How does it define phonological awareness?

The authors of *CONFIAS* define phonological awareness (PA) as the capacity of reflecting and manipulating the sounds of speech encompassing syllables, rhymes, alliteration and phonemes, as can be seen in the following quotation (Lamprecht *et al.*, 2003, p. 9): "Phonological awareness is the capacity of reflecting upon the sounds of speech and manipulating them, thus encompassing the syllables, rhymes, alliteration, ultrasyllabic units and phonemes" (my translation).<sup>4</sup> This definition is compatible with the definition of

<sup>&</sup>lt;sup>4</sup> A consciência fonológica é a capacidade de refletir sobre os sons da fala e manipulá-los, englobando a consciência de sílabas, rimas, aliterações, unidades ultrassilábicas (ataque e rima) e fonemas (LAMPRECHT et al., 2003, p. 9).

phonological awareness sustained by some authors (VELLUTINO *et al.*, 1996; CHEUNG, 2001; GRIGORENKO, 2001; CASTLES; COLTHEART, 2004; ZIEGLER, 2005; PAULA; MOTA; KESKE-SOARES, 2005; FRANCISCO *et al.*, 2006; VERHOEVEN, 2007; VERHAGEN, 2010; UCHIKOSHI, 2019; YOUNGER *et al.*, 2019) presented in the Review of Literature in Chapter II. In the same vein, the authors add that PA cannot be perceived as a single ability but as a series of competences to be developed and evaluated (Lamprecht *et al.*, 2003, p. 9): "Given that PA involves different cognitive abilities, PA cannot be perceived as a single entity but as a set of abilities that can be assessed and developed" (my translation).<sup>5</sup>

Lamprecht *et al.* (2003) also sustain that the development of reading and writing underlies the faculty of recognizing, chunking, arranging and manipulating the sounds of speech. These abilities, according to the above mentioned authors, characterize a solid phonological awareness competence.

**Question c:** Does the test contain screening measures (i.e. rapid naming), thus separating low performers and high performers?

In analyzing the *CONFIAS* test it was not possible to pinpoint the explicit allusion about screening measures that could ensue in a separation of low performers and high performers. Notwithstanding, by means of the reading of the instrument I can infer that *CONFIAS* allows a hierarchy within the subtests. In this regard, according to Lamprecht *et al.* (2003), two initial validations of the instrument wherein middle-class students' performance was assessed by means of a written evaluation based on four hypotheses: pre-syllabic, syllabic, syllabic-alphabetic and alphabetic were accomplished. After the statistical analysis, considering the four aforementioned hypotheses, the authors report that it was possible to determine the level of difficulty presented by examinees and rearranging the instrument starting with the items students obtained a better performance and ending with the items children had more difficulty with. Therefore, it can be deduced that *CONFIAS* contains screening measures, thus separating low performers and high performers.

**Question d:** Does the test encourage progress-monitoring measures?

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<sup>&</sup>lt;sup>5</sup> Por envolver diferentes habilidades cognitivas, a consciência fonológica não deve ser entendida como uma entidade única, mas como um conjunto de habilidades que podem ser avaliadas e desenvolvidas (LAMPRECHT et al., 2003, p. 9).

The authors of *CONFIAS* encourage progress-monitoring measures inasmuch they defend the employment of a written evaluation together with the application of the test. In line with this I can quote the following passage (Lamprecht *et al.*, 2003, p.33): "In order to assess the subjects it is recommended that *CONFIAS* is applied together with a written evaluation" (my translation).<sup>6</sup>

According to the authors this type of evaluation is based on four hypotheses: pre-syllabic, syllabic, syllabic-alphabetic and alphabetic. The aforementioned authors point out some characteristics of each hypothesis namely: the pre-syllabic hypothesis, which can be identified by means of numbers, letters and written representation of some objects; the syllabic hypothesis, which can be recognized when examinees demonstrate sensitivity to identify phonological parts of words and each letter corresponds to a syllable; the syllabic-alphabetic hypothesis, in turn, manifests when children demonstrate competence to make a phonemegrapheme association; and last but not least, alphabetic hypothesis can be perceived when participants are able to recognize that each character has a smaller impact on speech than each syllable has. Finally, the authors emphasize that the adoption of only one word in the sample does not do justice to corroborate what alphabetic hypothesis the children lie at.

Therefore, it can be inferred that as for the progress-monitoring measures the premises sustained by Lamprecht *et al.* (2003) enable examiners and speech-therapists to accompany examinees' performance, results and some eventual difficulties they might have in the test.

With respect of conceptual issues, in analyzing the *CONFIAS* test some critical factors can be underscored for a broader comprehension. For example, there is a concern about the theoretical aspects of phonological awareness (PA) abilities. In this respect, Lamprecht *et al.* (2003) importantly advocate that PA cannot be regarded a single entity, but as a set of abilities to be developed and evaluated. Another important aspect to be taken into consideration is the interest on part of the designers of *CONFIAS* in pursuing a combination between theoretical and empirical/statistical studies during the formulation of the test, which contributes for a validity of the instrument.

# 4.2.2 Structure/Organization

**Question a:** How is the test organized?

The instrument is organized in tasks that include segmentation, identification, production and phonemic and syllabic transposition. *CONFIAS* consists of the following

<sup>6</sup> Para fins de avaliação do desempenho dos sujeitos testados, sugere-se que o instrumento CONFIAS seja aplicado juntamente com uma avaliação da escrita (LAMPRECHT et al., 2003, p.33).

categories: syllabic awareness tasks (synthesis at the syllabic level; segmentation at the syllabic level; initial syllable identification; rhyming identification; production of a word with the correct syllable; identifying the medial syllable; rhyming production; deletion at the syllabic level; transposition at the syllabic level) and phonemic awareness tasks (target sounds task; identifying the initial phoneme; identifying the last phoneme; deletion at the phonemic level; synthesis at the phonemic level; segmentation at the phonemic level; transposition at the phonemic level). In question c, the types of tasks are explained in details.

# **Question b:** How many tasks are there in the test?

CONFIAS is divided into two categories namely: syllabic awareness which includes nine items and phonemic awareness which contains seven items. Therefore, the CONFIAS test contains a total number of sixteen tasks.

# **Question c:** What types of tasks were designed?

As mentioned in question *a*, *CONFIAS* is composed by the following types of tasks: syllabic awareness tasks which includes synthesis at the syllabic level; segmentation at the syllabic level; initial syllable identification; rhyming identification; production of a word with the correct syllable; identifying the medial syllable; rhyming production; deletion at the syllabic level; transposition at the syllabic level. Phonemic awareness tasks, in turn, includes the following tasks: target sounds task; identifying the initial phoneme; identifying the last phoneme; deletion at the phonemic level; synthesis at the phonemic level; segmentation at the phonemic level; transposition at the phonemic level. In the next paragraphs, some of the tasks that can originally be found on pages 23-25 are explained in detail:

- Synthesis at the syllabic level: the experimenter chunks a word and participants are asked to inform what word it is. E.g.: "And now *pi-ja-ma*. What word did I say?" (my translation).<sup>7</sup>
- Segmentation at the syllabic level: this task proposes the opposite of the previous one. In this case, the examiner says a full word and asks participants to chunk it. E.g.: "Now I am going to say a word and I want you to chunk it: *sala*" (my translation).<sup>8</sup> As mentioned in the Review of Literature in Chapter II, some authors as Li *et al.* (2020) agree about the importance of lexical segmentation for speech ability.
- Initial syllable identification: the examiner draws something (e.g. a snake), says three words afterwards and asks examinees to inform what word starts with the same syllable. E.g.: "What

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<sup>&</sup>lt;sup>7</sup> E agora pi-ja-ma. Que palavra eu disse?

<sup>&</sup>lt;sup>8</sup> Agora eu vou dizer uma palavra e quero que você separe em pedaços: sala.

is this drawing? (*cobra*) I am going to say three words [*copo, time, loja*]. Which one starts with *cobra*" (my translation). <sup>9</sup> The expected answer is: *copo*.

- Rhyming identification: the experimenter draws something on the board and asks children to inform what word rhymes with the drawn object. E.g.: "What is this drawing  $(m\tilde{a}o)$ ? I am going to say 3 words  $(sal, c\tilde{a}o)$  and  $(sal, c\tilde{a}o)$  and I want you to say what word ends (or rhymes) with  $m\tilde{a}o$  (my translation). The expected answer is:  $c\tilde{a}o$ .
- Production of a word with the correct syllable: the experimenter enunciates a syllable (pa) and requests participants to utter a word that starts with the same syllable. E.g.: "What word starts with pa? (my translation).<sup>11</sup> Participants are expected to utter words as papai and pacote.
- Identifying the medial syllable: the examiner draws something (a giraffe). Subsequently, s/he says three words and asks examinees to identify the word that has the same medial syllable as the drawn object (a giraffe). E.g.: "What is this drawing (girafa)? What is the medial part (or syllable) in the word girafa? I am going to say 3 words [pirata, panela, dinheiro] and only one has the medial part as the word girafa. What word is it?" (my translation). <sup>12</sup> The expected answer is pirata.
- Rhyming production: the experimenter draws an object (a hat) and asks subjects to enunciate a word that ends with the same sound. E.g.: "What is this drawing (*chapéu*)? What word ends (or rhymes) with *chapéu*?" (my translation). <sup>13</sup> Some of the expected answers are: *céu* and *véu*.
- Deletion at the syllabic level: the examiner deletes a syllable of a word (*so* of *socorro*) and asks participants to inform the new word (*corro*). E.g.: "If I remove *so* of *socorro*, what do we have?" (my translation).<sup>14</sup>
- Transposition at the syllabic level: the experimenter enunciates a backward syllable word and participants are expected to sort it out. E.g.: "Could you unscramble *darro*, please?" (my translation). The expected answer is *roda*.
- Identifying the initial phoneme: the examiner draws an object (a bell), enunciates three words, one of which starting with the same sound as the word that represents the object drawn and students ought to find which word it is. E.g.: "What is this drawing? Now I am going to say 3

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<sup>&</sup>lt;sup>9</sup> Que desenho é este? (cobra). Agora eu vou dizer 3 palavras [copo, time, loja]. Qual delas começa como cobra?

<sup>&</sup>lt;sup>10</sup> Que desenho é este? (mão) Eu vou dizer 3 palavras [sal, cão, luz] e quero que você me diga qual delas termina (ou rima) como mão.

<sup>&</sup>lt;sup>11</sup> Que palavra começa com pa?

<sup>&</sup>lt;sup>12</sup> Que desenho é este? (girafa) Qual é o pedaço (ou sílaba) do meio da palavra girafa? (ra). Eu vou dizer 3 palavras [pirata, panela, dinheiro] só uma tem o pedaço (ou sílaba) do meio igual ao de girafa. Qual é?

<sup>&</sup>lt;sup>13</sup> Que desenho é este? (chapéu) Que outra palavra termina (ou rima) como chapéu?

<sup>&</sup>lt;sup>14</sup> Se eu tirar so de socorro fica?

<sup>&</sup>lt;sup>15</sup> darro fica.

words [sede, chuva, gema]. One of them starts with the same sound as sino. Could you identify the word, please?" (my translation). The expected answer is: sede.

- Identifying the last phoneme: this activity has the same logic as the previous one, except that in this case participants have to identify the word that ends with the same sound as the word that represents the object drawn. E.g.: "What is this drawing? (*janela*) Now I am going to say 3 words [*xarope*, *sorriso*, *farinha*]. One of these words ends with the same sound as *janela*. Could you locate the word, please? (my translation). <sup>17</sup> The expected answer is: *farinha*.
- Segmentation at the phonemic level: the examiner says a full word ( $v\acute{o}$  or lua) and asks testees to chunk their phonemes. E.g.: "Now you are going to say the sounds of the words. Examples:  $v\acute{o}$ ; lua" (my translation). <sup>18</sup> Expected answers:  $v-\acute{o}$  and l-u-a.

**Question d:** What types of skills (productive or receptive) are assessed? Are examinees tested at the receptive level (rhyming recognition activities) or at the productive level (rhyme production activities)? Is the same scoring system applied for both?

CONFIAS assesses both types of skills: productive and receptive. Within syllabic awareness tasks we can pinpoint some tasks that assess participants at the receptive level namely: synthesis at the syllabic level, initial syllable identification, rhyming identification, identifying the medial syllable.

Some tasks, conversely, assess examinees at the productive level. The following examples portray this: production of a word with the correct syllable and rhyming production (syllabic awareness tasks); and transposition at the phonemic level (phonemic awareness).

As for the scoring system, *CONFIAS* scoring system parameters vary based on the syllabic awareness tasks *versus* phonemic awareness tasks rather than on the receptive level versus the productive level tasks. In spite of *CONFIAS* attributes both types of phonological awareness tasks (syllabic and phonemic) the same score (0-1 point) to each item, the instrument has a larger number of tasks (9) within the syllabic awareness scope than tasks (7) at the phonemic spectrum, which results in the possibility of 40 (forty) points for correct answers on tasks at the syllabic level and 30 (thirty) points for tasks at the phonemic level.

Question e: Are examinees tested individually or in groups?

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<sup>&</sup>lt;sup>16</sup> Que desenho é este? (Sino). Agora eu vou dizer 3 palavras [sede, chuva, gema]. Uma delas começa com o mesmo som da palavra sino. Descobre qual é a palavra.

<sup>&</sup>lt;sup>17</sup> Que desenho é este? (janela) Eu vou dizer 3 palavras [xarope, sorriso, farinha]. Uma delas termina com o mesmo som de janela. Descobre qual é a palavra.

<sup>&</sup>lt;sup>18</sup> Agora você vai falar os sons das palavras. Exemplos: vó; lua.

Albeit the authors do not explicitly inform if the test was developed to assess testees individually, in analyzing *CONFIAS* instructions for the application, it is possible to deduce that this instrument addresses the audience individually as the following passages suggest (Lamprecht *et al.*, 2003, p. 21):

...When the comprehension of the most complex tasks requires visual support, it is recommended the use of chips that will guide the child [the noun *child* is conjugated in the singular, which might imply that *CONFIAS* addresses subjects individually] what s/he must do with the sound thus relating each chip to a given sound of the word (my translation).<sup>19</sup>

And, further below we have another passage that might suggest that examinees are tested individually (Lamprecht *et al.*, 2003, p. 21): "In the tasks wherein drawings are used (S3, S4, S6, S7, F2 and F3) the child [again, the noun *child* is conjugated in the singular] must visualize each drawing at a time..." (my translation).<sup>20</sup>

#### **Question f:** Are there instructions on how to apply the tests?

CONFIAS contains clear-cut instructions for the examiners to apply each task. Some important instructions defended by Lamprecht *et al.* (2003) can be found on pages 21 and 22. They include the recommendation that the examiner reads the instructions before applying CONFIAS to be familiar with the tasks of the test. Other instructions encompass the advice that the examiner when applying CONFIAS says the words aloud and repeat them only once.

Lamprecht et al. (2003) also sustain that the examiner marks participants' answers on Folha de Respostas and takes some relevant notes during the application for subsequent qualitative analysis. The authors, in the same vein, recommend that the examiner sticks to the production of the phoneme under analysis thus avoiding the utterance of an adjacent vowel. Another important caveat in the instructions is that the experimenter always bears in mind that phonological awareness is concerned with sounds rather than letters.

After answering the questions of structure and organization category, it has been found that the activities of this instrument are organized in clear fashion providing the examiner the necessary input such as relevant instructions and examples of the activities to be applied thus enabling the experimenter to better analyze the results obtained by examinees in order to attribute a score compatible to students' performance. This organization reveals a

<sup>&</sup>lt;sup>19</sup>Nos casos em que o entendimento das tarefas mais complexas exige apoio visual, recomenda-se a utilização de fichas\* com as quais deve-se demonstrar para a criança o que deve fazer com o som, relacionando cada ficha a um som da palavra (LAMPRECHT et al., 2003, p. 21).

<sup>&</sup>lt;sup>20</sup> Nas tarefas em que são usados desenhos (S3, S4, S6, S7, F2 e F3), a criança testada deve visualizar um desenho de cada vez ... (LAMPRECHT et al., 2003, p. 21).

preoccupation on part of the designers of the test in assessing children's phonological awareness in a stepwise, continuous manner.

In the next section aspects about the validity of the instrument are going to be discussed.

## 4.2.3 Validity

**Question a:** What age group is the test aimed at?

Lamprecht *et al.* 2003, mention the variable "age group" on page 15 wherein they state that a sample of *CONFIAS* was piloted at a private school of Porto Alegre/RS-Brazil in 1999 comprising children whose ages ranged from 5 (five) to 7 (seven) years old. The intent of this sample was verifying if the instructions were clear for examinees, if the participants elicited the names of objects represented by the pictures of the sample properly and what feedbacks (positive, negative or both) testees gave in relation to *CONFIAS*. Lamprecht *et al.* (2003) state that some adjustments to were necessary for the refinement of *CONFIAS* such as the removal of words that appeared more than once and the removal of synonyms in activities that assessed subjects at receptive level. Aside from this information, Lamprecht *et al.* (2003) inform on page 21 that *CONFIAS* can be applied to children from 4 (four) years onwards.

Question b: Is the test applied for examinees from different backgrounds and socioeconomic status?

The authors state that the test was piloted and validated at different private schools from Porto Alegre/RS-Brazil (Lamprecht *et al.*, 2003, p. 15). They do not mention any event wherein *CONFIAS* might have been applied to public school children which might not be so simple to determine if the test addresses low-income individuals. Therefore, I suggest that before applying *CONFIAS* at a public school, the experimenter has a conversion with local teachers and practitioners to learn more about the level of literacy of students of that school and maybe try to adapt some activities or exclude some tasks in order to adjust *CONFIAS* to the context of that given school.

**Question c:** What are the scoring criteria and procedures?

Examinees are given 1 (one) point for each correct answer and 0 (zero) point for each incorrect answer. Within the syllabic awareness category there are nine items and the total score is 40, whilst within the phonemic awareness category there are seven items and the total score is 30 which sum up 70 points (100% of correct answers). The tests are divided into different

stages: the syllabic awareness tasks are applied first and then after a while (the authors do not specify the how long this interval must last) the phonemic awareness category tasks are applied.

As for the score within each specific task, to the best of my knowledge, in analyzing the *Protocolo de Respostas*, Lamprecht *et al.* (2003) do not establish an explicit distinction between the specific tasks. Therefore, the total score within each task is 1 (one) point albeit it can also be observed that the tasks S8 (at the syllabic level) and F4 (at the phonemic level) feature more subtests which may be a clue that there might be different score criteria within some of the tasks.

#### **4.2.4 Stimuli**

**Question a:** Does the test explain the criteria adopted to select the linguistic stimuli? Are low-frequent words or high-frequent words employed? Is the word-length taken into consideration? Are pseudo-words employed?

The test explains the criteria adopted to select the linguistic stimuli i.e. the insertion of words that are part of children vocabulary which includes high-frequent words. Another criterion adopted is the increase of the number of syllables of the words during the elaboration of the test which shows that word-lenght is taken into account. CONFIAS does not employ pseudo-words.

**Question b**: Does the test consider the examinees' experience with other languages, i.e., bilingualism?

The *CONFIAS* test does not inform whether examinees experience with other language were taken into consideration for the linguistic stimuli.

**Question c:** Does the test contain pictorial stimuli measures or verbal stimuli measures? Is there a difference between both stimuli?

In *CONFIAS*, pictorial stimuli measures and verbal stimuli measures are blended in both syllabic and phonemic tasks. Notwithstanding, *CONFIAS* does not specify the criteria adopted to use both types of stimuli measures interchangeably.

In analyzing the main characteristics of *CONFIAS*, concerning the criteria for the elaboration of the test, we can conclude that Lamprecht *et al.* (2003) attributed a weighting for stimuli category. Aside from the information provided in the previous paragraphs, another important aspect can be highlighted such as the criteria for the selection of the target-words which, according the authors, must be words that are part of children's vocabulary namely:

sorvete, gato, bola. Moreover, Lamprecht et al. (2003) were concerned with the form and the number of syllables each word has thus prevailing the consonant-vowel (e.g.: pão; sai) structure and consonant-vowel-consonant (e.g.: fada; fumaça) structure.

After analyzing the main aspects of *CONFIAS* it is important to establish a parallel between *CONFIAS* and *PCFO* tests aiming at intensifying their contributions for the assessment of children's phonological awareness.

#### 4.3. DISCUSSION AND COMPARISON OF THE TESTS

Concerning the *PCFO* and *CONFIAS* tests some similarities and differences can be pinpointed and they will be discussed in the following paragraphs.

Initially, *PCFO* test was made available to the public in 1998 proposed by Capovilla and Capovilla. The first version of *CONFIAS* was published in 2003 by Lamprecht *et al*. Both the tests were designed with the purpose of being applied by psychopedagogues, speech therapists and psychologists. The two tests resemble in the sense that they were piloted before the official validation and because they both assess PA in a comprehensive fashion given the varied types of tasks that make up each test.

As for the definition and characteristics of the tests analyzed, *PCFO* and *CONFIAS* present an important premise targeting a solid phonological awareness (PA) development. For instance, Capovilla and Capovilla (1998) sustain the importance of evaluating PA competence in order to avoid some eventual difficulties in the writing process. Lamprecht *et al.* (2003), in turn, importantly advocate that PA ability involve the recognition that words are made of separate sounds that can be manipulated by individuals. These premises defended in the aforementioned tests, in my interpretation, converge in one very important aspect: in both tests (*PCFO* and *CONFIAS*) there is a common ground that phonological awareness is an important competence for the literacy development. These premises are in accord with Rezai and Jeddi (2020)'s ideas presented in Chapter II about the causal relation between adequate phonological processing and appropriate reading skills.

It is worth noting that both tests above analyzed contain clear instructions in relation to the scoring system and the procedures for application. *PCFO* and *CONFIAS* tests, for instance, contain criteria which facilitate the assessment of examinees' answers and scoring for each cluster of tasks. Furthermore, each test features an appendix with instructions to be followed by the examiners. Therefore, *PCFO* test provides the *Folha de Aplicação* together with the *Folha de Registro de Respostas*, whereas *CONFIAS* features *Caderno de Aplicação* with the *Protocolo de Respostas*.

In relation to statistical analyses the tests converge about the importance they attribute to the validity of the instruments and eventual correlation with other variables such as changes and progress as students get older and move onto the next grades.

Another relevant aspect related to the tests analyzed is that they coincide in the sense that they encourage progress-monitoring measures. *PCFO* test accompanies children's performance and progress as they move onto the next grades. *CONFIAS* test, in turn, motivates the employment of a written evaluation based on four hypotheses: pre-syllabic, syllabic, syllabic-alphabetic and alphabetic.

With respect to the types of tasks, *PCFO* and *CONFIAS* present subtests that emphasize the importance of evaluating PA at different levels such as syllabic assessment, rhyme activities and phoneme identification.

Nevertheless, it is worth noting that the tests differ in relation to examinees' backgrounds and socioeconomic status. *PCFO* was applied to public and private children, whilst CONFIAS test was validated at different private schools, albeit as for *CONFIAS* it is not clear if the test excludes the possibility of being applied to an audience of another socioeconomic status.

Finally, the analyses depicted above, which were inspired by the research questions and the reading of the instruments aim at having a broader knowledge about each test, their characteristics, peculiarities and the intrinsic relation between PA and literacy acquisition. This study may be effective for pedagogues, scholars, psychopedagogues and speech therapists who might be interested in applying or investigating one of these instruments for future research in the field for the constant progress of literacy.

## 4.4 DESCRIPTIVE ANALYSIS OF TWO L2 VOCABULARY LEARNING TESTS

In this section of Chapter IV, an analysis of two L2 vocabulary tests, namely, the *Vocabulary Levels Test (VLT)*, proposed by Paul Nation in 1983 and the vocabulary size test named *V\_YesNo* developed by the Eurocentre Group, proposed by Paul Meara in 1988, will be presented based on the questions formulated in chapter III, section 3.2.2. The questions and their respective categories are in a table 2. In order to sustain this analysis, some authors (e.g. Webb, Sasao and Ballance, 2017 and Stoeckel, McLean and Nation, 2020) interested in investigating L2 vocabulary tests and their adequacy will be included in the discussion of the tests.

### 4.4.1 The Vocabulary Levels Tests (VLT)

### 4.4.1.1 Conceptual issues

**Question a:** When was the test made available to the public?

It was first developed in 1983 by Paul Nation. Paul Nation is an Emeritus Professor in Applied Linguistics at the School of Linguistics and Applied Language Studies at Victoria University of Wellington New Zealand whose main interest is the learning of vocabulary in the L2. An updated version was subsequently proposed by Schmitt, Schmitt, and Clapham in 2001 (KREMMEL; SCHMITT, 2018). According to Schmitt, Schmitt and Clapham (2001) it was later republished in Nation's book in 1990. Schmitt, Schmitt and Clapham (2001) also inform that *VLT* began to be used worldwide as a Nation's book became to be considered a key vocabulary reference source. Schmitt, Schmitt and Clapham (2001) also state that Schmitt paid a visit to the Victoria University of Wellington, New Zealand in 1999 and revised the *VLT* initially proposed by Paul Nation and wrote three additional versions of the test that started to be used together with the initial version developed by Nation in 1983 addressing learners of other native languages who studied English for general or academic proposes until the second version of *VLT* became official in 2001 (SCHMITT; SCHMITT; CLAPHAM, 2001). I could find that Schmitt; Schmitt; Clapham (2001) versions are more robust than the one developed by Nation.

Stoeckel, McLean and Nation (2020), importantly, state that the *VLT* test was initially developed by Nation in 1983 with the intent of verifying if learners mastered high, mid and low frequency words as well as words that are common in the academia. In line with the information that the *VLT* test was revised by Schmitt, Schmitt and Clapham (2001), Stoeckel, McLean and Nation (2020) contend that the version revised by Schmitt, Schmitt, and Clapham in 2001 is the most utilized today.

#### **Question b:** How does it define word knowledge?

The instructions of the different versions of the *VLT* test do not contain a definition of word knowledge. Notwithstanding, as already mentioned in The Review of Literature (Chapter II-Section 2.3), Schmitt (2008)' in advocating the importance of word knowledge, sustains that an L2 learner must not only have a wide L2 lexical repertoire, but must know way more about lexical items in order to appropriately use them, which is beyond creating a meaning-form relationship. This premise, nevertheless, is slightly different from the *VLT* test insofar as the *VLT* test does establish a meaning-form association.

<sup>&</sup>lt;sup>21</sup> Available on: www.etjbookservice.com/paul-nation. Accessed on October, 5<sup>th</sup>, 2021.

**Question c:** What domains of vocabulary learning are emphasized? Does the test emphasize the form-meaning connections or other levels of word knowledge are taken into consideration, i.e. word, associations, collocations, word parts, concepts and polysemy?

The updated version of *VLT* proposed by Schmitt, Schmitt and Clapham, in 2001 emphasizes form-meaning connections levels based on a word-frequency levels knowledge paradigm. These word frequency families are as follow: 1,000 word frequency; 2,000 word frequency; 3,000 word frequency; 5,000 word frequency and 10,000 word frequency and academic word level, being that from the 2,000 word family onwards the frequency of words used in the English language decreases. It is expected that participants master the most frequent 1000 word families (WEBB; SASAO; BALLANCE, 2017). According to Webb, Sasao and Ballance, 2017, mastering the most frequent 1000 word families is essential because the most 1000 word families comprehends 80% English. The most frequent 1001 to 2000 word families, conversely, account for from around 4 to 10% of English. In this respect, Webb, Sasao and Ballance, (2017) add that assessing the most frequent 1000 word family is the most valuable word frequency level to be rated inasmuch such a word frequency level is important for the comprehension of the English language. It is worth noting, though, that the most 1000 word families are not present in the first version of *VLT* but in the version designed by Schmitt, Schmitt, and Clapham in 2001 is (WEBB; SASAO; BALANCE, 2017).

**Question d:** Does the test focus on a specific category of words, such as verbs or adjectives or nouns?

The test includes nouns, verbs and adjectives in the lexical repertoire. The inclusion of these categories of words is compatible with the proportion of their occurrence in the English language albeit it might range within frequency bands, that is words that belong to one of the five groups of frequency words (WEBB; SASAO; BALLANCE, 2017).

**Question e:** Does the test encourage progress-monitoring, that is, are teachers or experimenters instigated to accompany participants' learning gains in the long term?

The test does not mention such an aspect but according to Kremmel and Schmitt (2018) *VLT* could be applied in more than one occasion which could enable teachers or researchers to accompany students' progress. Notwithstanding, the authors caution that the interim between these repetitions should be long, otherwise it would be difficult to determine participants' L2 gains in so far it is not a fine-grained test (e.g. it does not comprehend productive levels of word

knowledge nor it does assess examines' listening skills) that could diagnose incremental or even significant participants' L2 progress on daily basis.

## 4.4.1.2 Structure/Organization

Question a: How is the test organized?

*VLT* is organized into 10 (ten) clusters of 6 (six) words (three keys and three distractors) and three definitions at each level. Examinees are expected to write the appropriate item numbers beside their corresponding concepts (WEBB; SASAO; BALLANCE, 2017). In the next paragraphs some examples of the *VLT* published by Nation in 1983 are presented:

"Type numbers in the boxes":

1. blame

(2) keep away from sight

2. hide

(6) have a bad effect on something

3. *hit* 

(4) *ask* 

4. invite

5. pour

6. spoil

1. Basket

(4) money paid regularly for doing a job

2. Crop

(5) *heat* 

3. Flesh

(3) *meat* 

4. Salary

5. Temperature

6. Thread

1. birth

(1) being born

2. dust

(5) *game* 

3. operation

(6) winning

4. *row* 

5. sport

6. *victory* 

**Question b:** How many tasks are there in the test?

The initial version of *VLT* proposed by Paul Nation contains 30 tasks and the rev version proposed by Schmitt, Schmitt and Clapham contains 50 tasks. In each level of *VLT* test there is

an increase of the level of difficulty of words inasmuch the most frequent words of English appear in the first level.

# **Question c:** What types of tasks were designed?

The types of tasks that were designed are form-meaning connections of words tests wherein examinees are expected to match the definitions presented to their corresponding words (WEBB; SASAO; BALLANCE, 2017). Some examples of *VLT* (Nation, 1983) test can be seen below:

"Type numbers in the boxes"

- 1. configuration
- (1) *shape*

2. discourse

(2) speech

3. hypothesis

- (3) theory
- 4. intersection
- 5. partisan
- 6. propensity
- 1. deficiency

(3) swinging from

2. magnitude

(4) respect

3. oscillation

(1) *lack* 

- 4. prestige
- 5. sanction
- 6. specification

**Question d:** What types of skills (productive or receptive) are assessed? Are examinees tested at the receptive level (vocabulary recognition activities) or at the productive level (vocabulary production activities)?

Examinees are tested at the receptive level (vocabulary recognition activities) inasmuch they are asked to match words to their corresponding meanings. *VLT* cannot be deemed a productive level assessment test in so far as testees are not requested to write, pronounce words or having a conversation (communicative approach).

### **Question e:** What is the scoring system of the test?

For each correct answer the test taker receives 1 (one) point. Therefore, the maximum score at each level is 30 (thirty). The scoring of each level is more defining than the overall

score inasmuch it reveals where subsequent vocabulary learning ought to be spotlighted (WEBB; SASAO; BALLANCE, 2017). According to Webb, Sasao and Balance (2017), the new versions were made of five levels and the word family rather than lemma was utilized as the unit of counting for varied reasons based on the premise that if an individual knows the form of a word they may recognize an unknown form (e.g., accuser x accusation) without much effort, although Webb, Sasao and Balance (2017) admit that this rationale only holds true when it comes to receptive knowledge rather than productive knowledge.

**Question f:** Are examinees tested individually or in groups?

Examinees are tested individually.

**Question g:** Are there instructions on how to apply the tests?

In checking the *VLT* test *per se* I could find that the Paul Nation (1983)'s version of *VLT* test presents the activities in a straightforward way without a previous explanation about what examinees are expected to. For example, the test starts with the enunciation "Type the numbers in the boxes" and then presents the activities *per se* (examples of the activities can be found in question c of the Structure category). instruction and an example of the activities. In Schmitt and Clapham (2001, p. 1)'s version, the instructions are slightly more. Here I quote the instructions from the source: "This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning. Here is an example". Further down there is another instruction in the test with an example of the format of the tasks: "You answer it in the following way".

- 1. business
- 2. clock

(6) part of a house

3. horse

(3) animal with four legs

4. pencil

(4) something used for writing

- 5. shoe
- 6. wall

Finally, there is a recommendation that examinees do not try to guess word they do not know the meaning.

### 4.4.1.3 *Validity*

**Question a:** What age group is the test aimed at?

The *VLT* test does not specify the age group it aims at. Nevertheless, Webb, Sasao and Ballance (2017) applied the updated version of *VLT* (proposed by Schmitt, Schmitt and Clapham, in 2001) test to 250 participants learning English in three different countries (Japan, Spain and China) and their age varied between 18 and 45 (mean age: 22.9). Therefore the allusion to Webb, Sasao and Ballance (2017)'s study is important because based on this information it can be inferred that the *VLT* typically targets teenagers and adult EFL (English as a Foreign Language) learners rather than primary school children.

**Question b:** Can the test be applied to examinees from different backgrounds and socioeconomic status?

It does not specify the types of backgrounds and socioeconomic status the test is aimed at. Nevertheless, according to Webb, Sasao and Ballance (2017) the *VLT* can be applied to individuals from varied areas of knowledge such as engineering, economics and education which can be inferred that the *VLT* test suits the needs of varied types of audiences.

# **Question c:** What are the scoring criteria and procedures?

According to Webb and Sassao (2013) the overall score is not of great importance inasmuch the *VLT* test prioritizes scores on each of the five primary levels separately over the score on the whole test. In terms of statistical data I must admit that I found very difficult to understand the fine gained criteria to determine the score of each question in terms of specially considering that in the *VLT* tests (both in Nation's version and in Schmitt, Schmitt and Lampham's versions) participants are not required to take the full tests inasmuch they are allowed to do the exercises pertaining the levels that suit their lexical needs). Irrespective of the score, Kremmel and Schmitt (2018), importantly, sustain that VLT scores might not always be a solid parameter to determine how competent an individual is to use a L2 inasmuch the test does not explore language proficiency at the productive level (KREMMEL; SCHMITT, 2018).

**Question d:** Does the test determine the minimum number or percentage of corrected questions the examinees are expected to answer?

Given that VLT is not a test that assess participants' vocabulary size, examinees are assessed in accordance with their performance in a specific word level rather than in the whole test which might be slightly blurred to determine how many questions testees are expected to answer to be considered a good leaners of vocabulary in the L2, albeit the mastery of the 1,000-

3,000 word frequency bands may be a solid parameter to verify participants' proficiency (WEBB; SASAO; BALANCE, 2017).

#### 4.4.1.4 Stimuli

**Question a:** Does the test explain the criteria adopted to select the linguistic stimuli? Are low-frequent words or high-frequent words employed? Are pseudo-words employed?

The *VLT* updated version assesses learners'L2 lexical knowledge at 4 (four) frequency levels (2,000 word frequency, 3,000 word frequency, 5,000 word frequency, 1,0000 word frequency) and an academic vocabulary level albeit Kremmel and Schmitt (2018) caution that applying the 10000 and academic vocabulary levels to beginners might be time spent poorly. Therefore examiners are free to choose the word frequency levels that better suit participants' proficiency rather than applying the whole test at one go. The test employs verbs, adjectives and nouns in accordance with their proportional occurrence in the English language (WEBB; SASAO; BALLANCE, 2017), as explained in the answer to question *d* of the conceptual issue category. The *VLT* test does not employ pseudo-words.

**Question b:** Does the test contain pictorial stimuli measures or verbal stimuli measures? Is there a difference between both stimuli?

In accessing the VLT test I could verify that the VLT test contains written stimuli measures only.

**Question c:** Does it encourage the assessment of vocabulary size so as to verify if the participants have enough vocabulary to be able to perform some tasks as reading a text or a book?

Standpoints about this issue diverge. The *VLT* test might not be considered a vocabulary size test by some authors such as Stoeckel *et al.* (2020) for its main proposal is to determine how keen participants' knowledge of a specific word band (words pertaining to one of the five groups of frequency words as explained in question *c* of the conceptual issue category and question *a* of the Stimuli category) is. Notwithstanding, for Zhang and Koda (2017) knowing words of different lexical bands could be a characteristic of a vocabulary-size-based test. Other researchers such as Huibregtse, Admiraal and Meara (2002) and Zhang, Liu and Ai (2020), in the same vein, consider the *VLT* as a test that encourages the assessment of vocabulary size.

The *VLT* test might be effective to assess examinees' knowledge within a specific word frequency level. Nonetheless, in order to be deemed a robust vocabulary size test a much wider gamut of frequency levels should be gauged (WEBB; SASAO; BALLANCE, 2017).

Based on this analysis we can conclude that the updated version of *VLT* proposed by Schmitt, Schmitt, and Clapham in 2001 is more robust inasmuch it includes the 1,000 word frequency category whilst the first version of the *VLT* test proposed by Paul Nation in 1983 begins the test from 2,000 word frequency category onwards. Both versions of *VLT* coincide in the sense that they allow examinees to select the word band that they feel comfortable to, that is, subjects are not required to take the full test to attest their vocabulary level.

According to Kremmel and Schmitt (2018), by the same token, English learner beginners should not even undergo the academic vocabulary levels inasmuch the authors consider this investment time spent poorly. Another relevant aspect to be underscored is that the both versions of VLT do not assess participants at the productive level which might be somewhat blurred to determine if the fact that participants have had a good performance on the test necessarily means that these examinees would have a great performance on speech (KREMMEL; SCHMITT, 2018) albeit in my opinion it may be good test to be empirically applied to Brazilian participants. With these considerations we are moving into the analysis of another vocabulary assessment test named  $V\_Yes-No$  by Paul Meara (1992).

# 4.4.2 Questions about the vocabulary size test $V_Y$ esNo by Meara (1992)

### 4.4.2.1 Conceptual issues

**Question a**: When was the test made available to the public?

The vocabulary size test named  $V_YesNo$  was developed in 1992 by Paul Meara (CAMERON; 2002). Meara was a founding member of the Department of Applied Linguistics at Birkbeck College London and a Professor in the Department of English at Swansea University until 2009. Cameron (2002) informs that at each levels examinees are presented with a list of words and are requested to inform whether or not they know the word. Non-sense words are included. The vocabulary size test that contains the examples utilized in question c of Structure/Organization category can be found on the website: www.lognostics.co.uk/tools.

Question b: How does it define word knowledge?

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<sup>&</sup>lt;sup>22</sup> Available on: www.cardiff.ac.uk/people/view/101438-meara-paul. Accessed on October, 5<sup>th</sup>, 2021.

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The V YesNo test assumes that the recognition of a word is an adequate ability to

determine that a learner has a proficient word knowledge (MEARA; JONES, 1988). Although

The V YesNo vocabulary size test works with words out of context, according to Cammeron

(2002), recognition of words out of context is an important predictor of successful reading and

it should not be disregarded.

Question c: What domains of vocabulary learning are emphasized? Does the test

emphasize the form-meaning connections or other levels of word knowledge are taken into

consideration i.e. word associations, collocations, word parts, concepts and polysemy?

The V YesNo test (vocabulary size test) designed for the Eurocentre Groups emphasizes

the recognition of real words and the recognition of pseudo-words. Unlike the VLT test

previously analyzed which emphasizes form-meaning associations, the V YesNo test is more

concerned with the number of words participants know. Other aspects of word knowledge such

as collocations, metaphors, proverbs or polysemy are not encompassed.

Question d: Does the test focus on a specific category of words, such as verbs or

adjectives or nouns?

The V YesNo test works with nouns, verbs, adjectives and pseudo-words which have

some spelling resemblance with real words.

Question e: Does the test encourage progress-monitoring, that is, are teachers or

experimenters instigated to accompany participants' learning gains in the long term?

According to Cameron (2002), the vocabulary size test encourages progress-monitoring

in so far as the test provides detailed information about participants' language development

even for students recently arrived in the country with insufficient levels of English which can

aid specialists and mainstream teachers to decide on the most adequate intervention approaches.

4.4.2.2 Structure/Organization

**Question a:** How is the test organized?

In the same way as the VLT developed by Paul Nation, the V Yes/No test maintains the

same premise of levels of word frequency. At each level, the examinees are presented with a

list of words and are asked to indicate whether or not they know the word. The test contains 60

words at each of the 1K, 2K, 3K, 4K, 5K and Academic Levels. The 2K and Academic lists

utilized by Paul Meara are the same as those utilized by Paul Nation, albeit other levels are based on list words that are not the same as used by Nation (CAMERON, 2002).

### **Question b:** How many tasks are there in the test?

The *V\_YesNo* test contains 140 real words and 50 pseudo-words (ZHANG; LIU; AI, 2020). Notwithstanding, the version of the test available on www.lognostics.co.uk/tools (*V YesNo*) contains 200 items.

### **Question c:** What types of tasks were designed?

Multiple-choice format tests were designed wherein testees are expected to mark "Yes" on the correct alternatives and "Next" for the words they do not know or are not sure what they mean. These activities include both real words and imaginary (pseudo) words. Examples of the words of the vocabulary size test are as follow: "acute" (participants ought to mark "yes" or "next"); "podiast" (pseudo-word); "malicious"; "fair", "ajoin"; "makeshift"; "grudgingly" and "intimant".

**Question d:** What types of skills (productive or receptive) are assessed? Are examinees tested at the receptive level (vocabulary recognition activities) or at the productive level (vocabulary production activities)?

Examinees are tested at the receptive level (vocabulary recognition activities) inasmuch they are asked to mark the correct alternatives. This dynamics requires participants' abilities to recognize words when reading them (hence, receptive level) in the L2 rather than writing, pronouncing or applying these words in a conversation. Zhang, Liu and Ai (2020), interestingly, define the vocabulary size test as a meaning recall test in so far as testees are not required to provide the meaning of the words.

### **Question e:** What is the scoring system of the test?

According to Meara (1990) the scoring system takes into consideration two types of response made by the test-taker. The "Hit Rate" score which refers to the proportion of real vocables participants assume they know and the "False Alarm Rate" which refers to the proportion of non-existing words examinees think they know. The computer tallies an estimation of the true "Hit Rate" and adjusts it to the actual Hit Rate in view of the False Alarm Rate. Zhang, Liu and Ai (2020), in the same vein, describe the *V\_Yes-No* (vocabulary size test) scoring system as follows: "a Y(es) response to real words is a 'hit', a N(o) response to a real

word is a 'miss', a Y(es) response to a pseudoword is a 'false alarm', which is also regarded as a pseudoword guess and a N(o) response to a pseudoword is 'correct rejection'".

**Question f:** Are examinees tested individually or in groups?

The V YesNo test assesses examinees individually (UCHIHARA; CLENTON, 2020).

**Question g:** Are there instructions on how to apply the tests?

There are some instructions provided by Meara on how to apply the tests, as the follow quotation shows: "If you know what word means, then click YES

If you don't know what this word means, then click NEXT If you aren't sure, then click NEXT".

### *4.4.2.3 Validity*

**Question a:** What age group is the test aimed at?

Although, in the  $V\_YesNo$  test  $per\ se$  there is not a direct reference about participants' age group, some authors such as Cameron (2002) and Uchihara and Clenton (2020) state that the vocabulary size test can be applied to adults (scholars) and adolescents which suggests that the  $V\_YesNo$  test entails a diversified audience in terms of age group (13 years old students onwards).

**Question b:** Can the test be applied to examinees from different backgrounds and socioeconomic status?

According to Beglar (2010) the multiple-choice nature of the vocabulary size test permits a wide range of content to be trialed effectively and it enables the test to be applied to participants from a variety of language backgrounds inasmuch learners in general are acquainted with the multiple-choice format. As for socioeconomic status, in reading the test *per se* and some researchers interested in investigating the *V\_YesNo* (vocabulary size test) such as Meara and Jones (1988), Huibregtse and Admiraal (2002), Cameron (2002) and Uchihara and Clenton (2020) I could not find a clear reference about the *V\_YesNo* vocabulary size test addressing low-income individuals.

**Question c:** What are the scoring criteria and procedures?

According to the *V\_YesNo* Manual available on www.lognostics.co.uk/tools, scores in the 6,000 to 10,000 word range is considered good for non-native speakers of English. Scores

in the 3,500 to 6,000 word range are considered compatible with intermediate level learners. Scores in the 2,000 to 3,500 word range, conversely, are consistent with competent beginners. Finally, scores below 2,500 are unreliable and deserve attention.

**Question d:** Does the test determine the minimum number or percentage of corrected questions the examinees are expected to answer?

If a test-taker answers 90-100% of questions correctly they are considered "Advanced Plus. Notwithstanding, Uchihara and Clenton (2020) caution that a wide range of vocabulary size at the receptive level does not necessarily contribute for the production of a sophisticated discourse in the L2 in so far as high-frequent words are sufficient for speakers to express themselves. In line with this, the authors contend that obtaining a satisfactory performance in the vocabulary size test does not guarantee that participants would be able to use this wide range of words in spoken discourse.

#### 4.4.2.4 Stimuli

**Question a:** Does the test explain the criteria adopted to select the linguistic stimuli? Are low-frequent words or high-frequent words employed? Are pseudo-words employed?

The *V\_YesNo* test typically employs high-frequent words albeit some low-frequent words are employed, too. It also employs non-existing words (pseudo-words) and examinees are expected to recognize that these words are not real by pressing "Next" (MEARA, 1990; CAMERON, 2001; UCHIHARA; CLENTON 2020; ZHANG; LIU; AI, 2020).

**Question b:** Does the test contain pictorial stimuli measures or verbal stimuli measures? Is there a difference between both stimuli?

The V YesNo test does not contain visual stimuli.

**Question c:** Does it encourage the assessment of vocabulary size so as to verify if the participants have enough vocabulary to be able to perform some tasks as reading a text or a book?

The *V\_YesNo* test prioritizes the assessment of vocabulary size at the receptive level. For Meara and Jones (1988), for all that examinees are gauged at the receptive level, a considerable vocabulary size mastery approximates learners to a more active role in the usage of L2. This is in line with Milton and Donzelli (2013)'s rationale presented in Chapter I who sustain that vocabulary size is an important component of literacy in a second language.

After analyzing the *VLT* and *V\_YesNo* (vocabulary size test) we can conclude that both tests share some resemblance: they both base the assessment of L2 vocabulary on the knowledge of words within frequency-bands, that is, they assume that mastering the most frequent words is essential for an adequate performance in communication and reading, although the *V\_YesNo* prioritizes the quantity of words examinees know whilst the *VLT* test is more concerned with the mastery of words within a specific band. The *VLT* test priority which focuses on the word band is consistent Schmitt (2008)'s proposal presented in Chapter II that a L2 learner must not only possess a large L2 lexical repertoire, but must know way more about lexical items in order to appropriately use them, which is beyond establishing a meaning-form relationship.

Another similarity is that of VLT and  $V\_Yes/No$  test is that they both assess participants' L2 lexical competence at the receptive level; they both adopt similar linguistic stimuli, they can be applied to participants from varied backgrounds and both of them are applied individually. The main difference between them is that the  $V\_YesNo$  test includes pseudo-words and scores participants based on their performance on these pseudo-words.

The limitation both tests share is that they do not determine whether testees are able to be immersed in effective communicative scenarios in so far as neither assesses examinees at the productive levels. Moreover, another limitation of them is that the multiple-choice format might enable test takers to guess which might not be an effective parameter to determine if the participant indeed knows the words they are expected to know. This is in line with the premises of Uchihara and Clenton (2020) presented in the Review of Literature about L2 vocabulary acquisition which can be found in Chapter II wherein the authors report that they applied the vocabulary size test together with an oral picture narrative wherein four comic strips were selected to elicit participants' speech and attendees were requested to describe the images with a short-story in the L2 (English). The criteria adopted to gauge examinees' L2 speech were as follow: fluency, vocabulary, grammar and pronunciation. Uchihara and Clenton (2020), sustain that participants with a satisfactory performance in the *VLT* did not necessarily elicited sophisticated oral narratives. With this report, we can conclude that in spite of the importance of assessing participants at the receptive level, narrowing the assessment of vocabulary to this modality is not sufficient to indeed verify if participants are proficient learners of the L2.

By the same token, another interesting contribution for this debate that can also be found in The Review of Literature-Chapter II comes from Yeung *et al.* (2019)'s ideas insofar as the authors sustain that explicit vocabulary instruction activities with a focus on oral competence (productive level) are quite effective for a successful L2 lexical retention.

Notwithstanding, another important contribution for this discussion which can be found in Chapter II, too, is slightly incompatible with Uchihara and Clenton (2020) and Yeung *et al.* (2019)'s rationales. Shintani (2011), importantly, reports a study conducted with 36 Japanese children aged-6-8 with both input (receptive vocabulary) and output (vocabulary production) with the intent of verifying which of both modalities predicted better L2 outcomes (more details of this activity are in Chapter II). Shintani (2011) found that the input tests (assessment of vocabulary at the receptive level) provided richer opportunities for L2 vocabulary retention than the output test did (assessment of vocabulary at the productive level) although Shintani (2011) holds that both forms of calibrating L2 vocabulary are valid. This premise is in agreement with Santos and Lopes (2012)'s ideas depicted in the Review of Literature (Chapter II) given that the authors sustain that in assessing individuals' vocabulary, testing participants' oral and written abilities are equally important for the literacy development.

Albeit Shintani (2011) found that participants' performance at the productive level surpassed their performance at the receptive level, this finding was only possible because the author implemented activities at both the receptive level and at the productive level which lead us to conclude that the lack of the assessment of vocabulary at the productive level in both the VLT test and the vocabulary size test named  $V\_YesNo$  may be a limitation of the tests that are being analyzed in the present Chapter.

As for the absence of pictorial stimuli in *VLT* and *V\_YesNo*, this might be another limitation of the tests inasmuch Andra *et al.* (2020) reported wherein the authors ran a pool of vocabulary acquisition experiments with 8 year-old German children. These experiments consisted of pictures of L2 vocabulary together with gestures. Andra *et al.* (2020) reasoned that the picture-depiction dynamics rendered satisfactory L2 recall insofar as testees demonstrated to have absorbed the new words they had learnt in post hoc interventions.

Notwithstanding, in spite of the limitations of the test, both the *VLT* and the *V\_YesNo* are effective to suit students' L2 lexical needs and the possibility of applying them in Brazilian settings (schools and Universities) is, in my opinion, valid.

As for the possible similarities, interfaces and/or differences between the L1 PA tests and the L2 vocabulary tests, I could not find scientific studies that establish a comparison between the PA tests and the L2 vocabulary tests analyzed in the current Thesis. Notwithstanding, after my analysis of the tests it is possible to highlight some similarities between the L1 PA tests and the L2 Vocabulary tests namely: the PA and the L2 vocabulary tests assess participants at the receptive level (albeit the two PA tests also assess participants at the productive level whilst the two L2 vocabulary tests do not), the PA and the L2 vocabulary

tests are concerned with words that may be part of participants' lives and the PA and the L2 vocabulary tests encourage progress monitoring.

As for the differences between the two types of test, in PA tests it is overtly defended the recruitment of children whilst in the L2 vocabulary tests adolescents and adult participants are usually mentioned as the main audience (WEBB; SASAO; BALLANCE, 2017; UCHIHARA; CLENTON 2020).

Another difference between the two types of tests analyzed is that one of the L2 vocabulary tests ( $V\_YesNo$ ) includes pseudo-words whereas none of the PA tests analyzed employs pseudo-words.

#### **CHAPTER V**

#### **CONCLUSION**

When learning a second language it is important to recognize that vocabulary size is a crucial component. In this aspect, Staehr (2008) sustains that more than 70% of variance in reading in the L2 is predicted by vocabulary growth. Staehr (2008), likewise, advocates that lexical development also contributes to writing and auditory abilities. This premise is compatible with the proposal of the two L2 vocabulary tests that were analyzed in this study, especially the  $V\_YesNo$  test.

Given the paucity of research involving an important facet of literacy acquisition, such as phonological awareness, and the acquisition of L2 in the school setting I felt motivated to carry out a research wherein the constructs L1 PA and L2 vocabulary were the bedrock to conduct the present study.

In order to conduct the descriptive analysis the general objective was to carry out an analysis of phonological awareness tests in Portuguese as L1 (*Prova de Consciência Fonológica por Produção Oral – PCFO*, proposed by Capovilla and Capovilla in 1998 and *Consciência Fonológica: Instrumento de Avaliação Sequencial - CONFIAS by Lamprecht et al, 2003*) and two L2 vocabulary tests (*Vocabulary Levels Test – VLT*, proposed by Paul Nation in 1983 and *V YesNo* test designed by Paul Meara in 1992).

Aside the general objective, two specific objectives were outlined. The first specific objective included the endeavor to determine how the L1 (Portuguese) phonological awareness tests named *Prova de Consciência Fonológica por Produção Oral (PCFO)* and *CONFIAS (Consciência Fonológica: Instrumento de Avaliação Sequencial)* define and assess phonological awareness construct, by means of the analysis of categories namely conceptual and validity issues, structure and organization of the tests and stimuli used in each test. The other specific objective sought to comprehend how the L2 vocabulary tests *Vocabulary Level Tests (VLT)* and the vocabulary size tests *V\_YesNo* define and assess vocabulary in L2, by means of the analysis of the aforementioned categories.

With the intent of carrying out this inquiry, two research questions were proposed which included the attempt to verify how the phonological awareness tests selected for analysis (*PCFO* and *CONFIAS*) define and measure phonological awareness. The other research question, in turn, aimed at investigating how the L2 vocabulary tests selected for analysis (*VLT* and *V YesNo*) define and measure L2 vocabulary.

For the analysis of the aforementioned tests two questionnaires consisting of 4 main categories of analysis, each with specific questions, was exposed in Table 1 and Table 2, respectively. These questionnaires were inspired by some ideas sustained by the authors Lane *et al.* (2002), Mellard, Micknight and Woods (2009) and Nation and Kremmel (2019).

After the analysis of the L1 PA tests and L2 vocabulary tests, some results were reached. As for the two L1 PA tests, *PCFO* and *CONFIAS*, some similarities and differences can be pinpointed and they were discussed in Chapter IV.

Both tests (*PCFO* and *CONFIAS*) share some similarities and differences. The two tests resemble in the sense that they were piloted before the official validation. As for their definition and characteristics of the tests, it has been observed that *PCFO* and *CONFIAS* present an important premise targeting a solid phonological awareness (PA) development. Furthermore, it is worth noting that the premises defended in these tests converge in one very important aspect: there is a common ground that phonological awareness is an important competence for the literacy development. These ideas were also found in Chapter II in so far as Goswami (2010), Li *et al.* (2020) and Rezaei and Jeddi (2020) presented evidence sustaining a causal relation between adequate phonological processing and appropriate reading skills.

Moreover, in my analysis, I could find another relevant aspect related to the tests *PCFO* and *CONFIAS*. They agree that students must receive progress-monitoring measures, inasmuch *PCFO* test accompanies children's performance and progress as they move onto the next grades and *CONFIAS* test, in turn, stimulates the employment of a written evaluation based on the following hypotheses: pre-syllabic, syllabic, syllabic-alphabetic and alphabetic.

As for the L2 vocabulary assessment tests, it could be verified that the vocabulary size test named  $V\_YesNo$  emphasizes the importance of vocabulary size for the L2 learning process whilst the VLT test is more concerned with the domain of words within a specific word frequency band and how fruitful the mastery of these specific words can be for L2 learners. In spite of these slightly difference between both tests, they address vocabulary assessment at the receptive level which is a valid-yet-not robust methodology in so far as assessing vocabulary at the productive level is essential to determine how well-prepared L2 learners are to be immersed in a conversation and to determine how accurate individuals' pronunciation is (UCHIHARA; CLENTON, 2020). Moreover, after my analysis, I could also conclude that having a large vocabulary size in a receptive level assessment test does not necessarily mean that testees would be able to know the most appropriate context that a given word should be used (UCHIHARA; CLENTON, 2020). Furthermore, Uchihara and Clenton (2020) advocate that a great score in a

receptive level assessment test does not reject the hypothesis that the participant might have guessed some questions in a Multiple-Choice Test Taking.

#### 5.1 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

There are 3 main limitations of the present study as well as suggestions for future studies will be outlined. In this respect, it is worth noting that a great limitation of the current Master Thesis is that due the Pandemic caused by Covd-19, it was not possible to fulfil the initial objective of the study which was running empirical research in Primary Schools of Florianópolis, SC-Brazil to assess students' L1 PA and L2 vocabulary in order to check if there was a correlation between these two variables, that is, if students with higher levels of L1 PA were more inclined to demonstrating a better knowledge of L2 vocabulary or if a possible causal relationship between these two abilities would not hold true.

Therefore, a pertinent suggestion for future research is to conduct an empirical study investigating the constructs analyzed in the current Thesis by means of the application of some or all of the tests there were scrutinized in this qualitative study in order to collect statistical data of participants' performance in PA and/or L2 vocabulary, as one of the avenues of accompanying students' literacy and L2 learning progress.

Also, only 2 tests of PA and only 2 vocabulary testes were analyzed and theses tests were all chosen by the reasons explained in the Results and Discussion section in Chapter IV. Future research should include more tests for both PA and L2 vocabulary so as to establish a broader parameter of how to assess these constructs. As for the L2 vocabulary, given that the two tests analyzed only assess L2 vocabulary at the receptive level, it would be interesting to include a test that assesses L2 vocabulary at the productive level.

Also, the categories of analysis created as well as the analysis carried out were not submitted to independent judges for validity. Therefore, future research, in elaborating these categories of analysis, should consider submitting these categories to an expert who could assess them and make suggestions. This intervention could contribute for the improvement of the formulation of the questions for validity of the analysis of the tests.

#### 5.2 PEDAGOGICAL IMPLICATIONS

The present study may bring a broader comprehension about the main characteristics of the analyzed tests and may lay the groundworks for future studies that might be interested in investigating the relationship between phonological awareness and L2 learning, particularly vocabulary learning and literacy.

By the same token, the analysis of the materials selected can prompt L2 researchers and teachers to adjust these important skills, that is, L1 phonological awareness and L2 vocabulary learning, in a forthcoming event which may be effective not only for future research in the area, but also for pedagogues, speech therapists and English teachers to ameliorate literacy and L2 hindrance young learners may have.

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# APPENDIX A

# CONFIAS

Consciência Fonológica: Instrumento de Avaliação Sequencial

Nome:		
Escolandade:	Uara tármina.	Idade: Data:
	Hora termino: _	Data:
NÍVEL DA SÍLABA	oservações ,	(F) NÍVEL DO FONEMA
\$1	, , , , , , , , , , , , , , , , , , ,	F1 Observações
S2 0 1		F2 0 1
S3 0 1		F3 0 1
S4 0 1		F4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
S5 Produção		F5 0 1
S6 0 1		0 1 F6
0   1   Produção   S7		0 1
0 1 Produção		F7
S8		Possibilidades         Acertos           Sílaba         40           Fonema         30           Total         70
S9 Produção		OBSERVAÇÕES GERAIS:

APPENDIX B

SRRG.001.8

# **CONFIAS**

# CONSCIÊNCIA FONOLÓGICA: INSTRUMENTO DE AVALIAÇÃO SEQUENCIAL

Sônia Moojen (Coord.); Regina Lamprecht; Rosangela Marostega Santos; Gabriela Menezes de Freitas; Raquel Brodacz; Maity Siqueira; Adriana Corrêa Costa; Elisabet Guarda.

# CADERNO DE APLICAÇÃO

# **INSTRUÇÕES**

I - NÍVEL DA SÍLABA: CONJUNTO DE 9 TAREFAS

II - NÍVEL DO FONEMA: CONJUNTO DE 7 TAREFAS

O APLICADOR DEVERÁ SEGUIR AS INSTRUÇÕES DESCRITAS EM CADA TAREFA E ANOTAR AS RESPOSTAS DA CRIANÇA NO PROTOCOLO DE RESPOSTAS.

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### **APPENDIX C**

# (S) NÍVEL DA SÍLABA

S1 - Síntese

"Nós vamos brincar com os sons das palavras. Eu vou dizer uma palavra	Palavras-alvo
separada em pedaços: so-pa. Que palavra eu disse?"	bi-co
Pronuncie a palavra 'sopa' com um breve intervalo entre cada sílaba: so - pa.	sor – ve – te
"E agora pi – ja – ma. Que palavra eu disse?"	má-gi-co
	e-le-fan-te
Exemplos:	
so - pa = sopa	
pi - ja - ma = pijama	

S 2 - Segmentação

"Agora eu vou dizer uma palavra e quero que você separe em pedaços: sala."	Palavras-alvo
"E esta outra: urubu".	gato
	abacaxi
Exemplos:	cachorro
sala = sa - la	escova
urubu = u - ru - bu	

S 3 - Identificação de sílaba inicial

"Que desenh	o é este? (cobra). Agora eu vou	Desenhos	Alternativas
dizer 3 palavras. Qual delas começa como cobra?"		faca	fada – vaso – lata
Caso a criança não entenda, auxilie na identificação		pipoca	sapato - piscina - bigode
da sílaba inicial dos exemplos.		cabide	bandeira – palito – carroça
		cenoura	raposa – semana – chinelo
<b>Exemplos:</b>			
cobra	copo – time – loja		
garrafa	foguete - galinha - caderno		

S 4 - Identificação de rima

"Que desenho é este? (mão) Eu vou dizer	Desenhos	Alternativas
3 palavras e quero que você me diga qual delas	flor	pão – dor – trem
termina (ou rima) como mão."	martelo	morango – tapete – castelo
	abelha	relógio - orelha - vestido
Exemplos:	coração	armazém – carnaval – injeção
mão sal – $cão$ – luz		,
aranha montanha - umbigo - carrinho		

3

### APPENDIX D

S 5 - Produção de palavra com a sílaba dada

"Que palavra começa com 'pa'?"	Sílabas-alvo
	ca
Exemplos:	ba
pa = papai, pacote	pi
ja = jarra, Japão	so

S 6 - Identificação de sílaba medial

"Que desenho é este? (girafa) Qual é o pedaço	Desenhos	Alternativas
(ou sílaba) do meio da palavra girafa? ('ra'). Eu vou dizer 3 palavras e só uma tem o pedaço (ou sílaba) do meio igual ao de 'girafa'. Qual é?"	tomate palhaço cavalo jacaré	fumaça – lanterna – espeto mochila – caneta – telhado soldado – gravata – vizinho avental – macarrão – dominó
Aguarde que a criança evoque a sílaba do meio, antes de dizer as 3 palavras. Auxilie a evocação das sílabas do meio nos exemplos.		
Exemplos: girafa pirata – panela – dinheiro camelo colega – vermelho – bolacha	* 1	
•••		

S7-Produção de rima

"Que desenho é este? (chapéu) Que oura palavra termina (ou rima) como	Desenhos
chapéu?"	balão
·	café
Exemplos:	rato
chapéu = céu, véu (dependendo da região, estarão corretas respostas como	bola
'hotel', 'pastel').	
pente = quente, dente	

<sup>•••</sup> Se necessário, ajude a criança movendo fichas correspondentes ao número de sílabas ou fonemas.

APPENDIX E

O Instrumento

5

••• "cól" de caracol

"Se eu tirar 'so' de socorro fica? (corro)	Palavras-alvo
'Se eu tirar 'be' de cabelo fica? (calo)	"ci" de cipó
	"pi" de piolho
Exemplos:	"es" de escola
socorro = corro	"té" de pateta
cabelo = calo	"ve" de gaveta
	"le" de pele
	"to" de gasto

"Eu vou dizer uma palavra que não existe. Essa palavra tem dois pedaços	Palavras-alvo
(ou sílabas) e você vai trocar os pedaços: diga primeiro o pedaço do fim	tapór
e depois o pedaço do começo. Você vai descobrir uma palavra que existe. Assim:	lhomí
darró fica? (roda). Chobí fica? (bicho)".	cafó
	valú
Aguarde a resposta da criança para ter certeza de que ela entendeu a tarefa de transposição.	
Exemplos:	
darró = roda	
chobí = bicho	
000	

<sup>···</sup> Se necessário, ajude a criança movendo fichas correspondentes ao número de sílabas ou fonemas.

# APPENDIX F

# (F) Nível do Fonema

F1-Produção de palayra que inicia com o som dado

"Eu vou dizer um som e você vai me dizer uma palavra que comece com esse som."	Sons-alvo
Observação: o som de [3] corresponde ao 'g' e ao 'j' (gente, jóia); o som de	[3]
[ʃ] corresponde ao 'ch' e ao 'x' (chave, xícara).	[v]
Exemplos:	[[]
[a] = amigo, agulha	[s]
[f] = feijão, família	

F 2 -Identificação de fonema inicial

"Que desenho é este? (sino). Agora eu vou dizer	Desenhos	Alternativas
3 palavras. Uma delas começa com o mesmo som	urso	ovo – bolo – unha
da palavra 'sino'. Descobre qual é a palavra".	folha	vela – figo – cola
	macaco	menino – presente – salada
Exemplos:	dedo	doce – sapo – linha
sino sede – chuva – gema		
bota galo – banco – pêra		

F 3 - Identificação de fonema final .

"Que desenho é este? (janela) Eu vou dizer	Desenhos	Alternativas
3 palavras. Uma delas termina com o mesmo	lápis	pedra – garfo – férias
som de'janela'. Descobre qual é a palavra."	tambor	nariz – colher – manhã
•	piano	criança – cidade – banheiro
	escada	cabeça – parede – morcego
Exemplos:		
janela xarope - sorriso - farinha		
chave <i>pele</i> – cama – lobo		

F4-Exclusão

"Se eu tirar o som [ S ] da palavra 'chama' fica?" (ama)	Palavras-alvo
"Se eu tirar o som [r] da palavra 'barba' fica?" (baba)	som [r] de mar
	som[3] de jaula
Exemplos:	som [v] de vida
som [s] de chama = ama	som [s] de pasta
som [r] de barba = baba	som [a] de peça
E	som [u] de viúva

### APPENDIX G

O Instrumento

7

F 5 - Síntese

"A palavra Eva tem estes sons: E - V - A . Eu vou dizer uns sons, e	Palavras-alvo
você vai descobrir que palavra eles formam."	g-i-z
Pronuncie os sons com um breve intervalo entre cada um deles. A pronúncia	u - v - a
deve ser curta para que não se tornem sílabas. Por exemplo, o som de [z] deve	a-s-a
ser produzido como 'zzz' e não como 'zã'.	m-a-1-a
Na palavra "giz" o "z" tem som de [s].	
Exemplos:	
E - v - a = Eva	
m-e-s-a=mesa	

F 6 - Segmentação

"Agora você vai falar os sons das palavras."		Palavras-alvo
	C	chá
Exemplos:	C	SSO
$v \circ = v - \circ$	li	XO
lua = 1 - u - a	••• n	nola

#### F7 - Transposição

Este item, devido à sua complexidade, gera dificuldade tanto na aplicação quanto no	Palavras-alvo
entendimento da ordem por parte da criança. Sugere-se o uso de fichas durante toda	alé (ela)
a aplicação, conforme o seguinte procedimento:	óva (avó)
1°) diga as palavras inventadas, deslizando o dedo sobre as fichas;	ôla (alô)
2°) diga os sons isoladamente, apontando uma ficha por vez;	ias (sai)
3º) solicite que a criança diga os sons de trás para diante, juntando-os para formar uma palavra que exista.	
"Agora nós vamos falar de trás para diante. Eu vou dizer uma palavra esquisita como 'amú'. Ela tem três sons: a – m – u. Se você disser os sons de trás para	
diante nós vamos achar uma palavra que existe: 'uma". E a palavra esquisita  'ica' – se dissermos os sons desta palavra de trás para diante, que palavra  formaríamos? ('aqui')."	

<sup>•••</sup> Se necessário, ajude a criança movendo fichas correspondentes ao número de sílabas ou fonemas.

# APPENDIX H

# Prova de Consciência Fonológica por produção Oral Folha de Registro de Respostas

(Seabra & Capovilla)

Nome:	Idade:	Série:
Data:/	Pontu	ação Total:

Síntese silábica	resposta	Segmentação fonêmica	resposta
1. lan – Che		21. pé	
2. ca - ne - ta		22. aço	
3. pe - dra		23. casa	
4. bi - ci - cle - ta		24.chave	
Síntese fonêmica	resposta	Manipulação silábica	resposta
5. s - ó		25. per + na (no fim)	
6. m - ãe		26. bater - ba	
7. g - a - t - o		27. neca + bo (início)	
8. c - a - rr - o		28. salada - da	
Rima	resposta	Manipulação fonêmica	resposta
9. mão - pão - só		29. pisca + r (no fim)	
10.queijo - moça - beijo		30. falta - f	
11. peito - rolha - bolha		31. ouça + 1 (início)	
12. até - bola - sopé		32. calor - r	
Aliteração	resposta	Transposição silábica	resposta
13. boné - rato - raiz		33. boca	
14.colar - fada - coelho		34. lobo	
15. inveja - inchar - união		35. toma	
16.trabalho - mesa - trazer		36. faço	
Segmentação silábica	resposta	Transposição fonêmica	resposta
17. bola		37. olá	
18. lápis		38. sala	
19. fazenda		39. olé	
20. gelatina		40. alisa	

### APPENDIX I

# Prova de Consciência Fonológica por produção Oral

### Folha de Aplicação

(Seabra & Capovilla)

Síntese Silábica: A criança deve unir as sílabas faladas pelo aplicador, dizendo qual palavra resulta da união.

Instruções: Vamos jogar o jogo do robô, eu vou fazer de conta que sou um robô que fala as partes (sílabas) das palavras lentamente (com taxa de uma sílaba por segundo), e você deve adivinhar o que o robô está falando.

Treino: que palavra resulta da união de:

/pa/ - /pel/;

/pro/ - /fe/ - /sso/ - /ra/.

Teste: que palavra resulta da união de:

/lan/ - /che/ ⇒ /lanche/;

 $/ca/ - /ne/ - /ta/ \Rightarrow /caneta/;$ 

 $/pe/ - /dra/ \Rightarrow /pedra/;$ 

/bi/ - /ci/ - /cle/ - /ta/ ⇒ /bicicleta/.

Síntese Fonêmica: A criança deve unir os fonemas falados pelo aplicador, dizendo qual palavra resulta da união.

Instruções: Vamos jogar novamente o jogo do robô, mas agora eu vou falar os sons (fonemas) das palavras lentamente (com taxa de uma sílaba por segundo), e você deve adivinhar o que o robô está falando.

Treino: que palavra resulta da união de:

1f/ - /o/ - /i/;

/l/ - /a/ - /ç/ - /o/.

Teste: que palavra resulta da união de:

/s/ - /ó/ ⇒ /só/;

/m/ - /ã/ - /e/ ⇒ /mãe/;

 $/g/ - /a/ - /t/ - /o/ \Rightarrow /gato/;$ 

 $/c/ - /a/ - /rr/ - /o/ \Rightarrow /carro/.$ 

Rima: A criança deve julgar, dentre três palavras, quais são as duas que terminam com o mesmo som.

Instruções: Vou dizer três palavras, duas terminam com o mesmo som, e uma termina com um som diferente. Diga quais são as duas que terminam com o mesmo som.

# APPENDIX J

Treino: quais palavras terminam com o mesmo som:

/bolo/, /mala/, /rolo/  $\Rightarrow$  /bolo/, /rolo/;

/baleia/, /sereia/, /canoa/ ⇒ /baleia/, /sereia/.

Teste: quais palavras terminam com o mesmo som:

/mão/, /pão/, /só/ ⇒ /mão/, /pão/;

/queijo/, /moça/, /beijo/ ⇒/queijo/, /beijo/;

/peito/, /rolha/, /bolha/ ⇒ /rolha/, /bolha/;

/até/, /bola/, /sopé/ ⇒ /até/, /sopé/.

Aliteração: A criança deve julgar, dentre três palavras, quais são as duas que começam com o mesmo som.

Instruções: Vou dizer três palavras, duas começam com o mesmo som, e uma começa com um som diferente. Diga quais são as duas que começam com o mesmo som.

Treino: quais palavras começam com o mesmo som:

/fada/, /face/, /vila/ ⇒ /fada/, /face/;

/escola/, /menino/, /estrada/ ⇒ /escola/, /estrada/.

Teste: quais palavras começam com o mesmo som:

/boné/, /rato/, /raiz/  $\Rightarrow$  /rato/, /raiz/;

/colar/, /fada/, /coelho/ ⇒ /colar/, /coelho/;

/inveja/, /inchar/, /união/ ⇒ /inveja/, /inchar/;

/trabalho/, /mesa/, /trazer/  $\Rightarrow$  /trabalho/, /trazer/.

Segmentação Silábica: A criança deve separar uma palavra falada pelo aplicador nas suas sílabas compo-

Instruções: Vou dizer uma palavra, e agora você é quem vai fingir ser o robô, repetindo a palavra bem devagar, falando cada parte separadamente.

Treino: separar as sílabas de:

/livro/ ⇒ /li/ - /vro/;

 $/\text{bexiga}/ \Rightarrow /\text{be}/ - /\text{xi}/ - /\text{ga}/.$ 

Teste: separar as sílabas de:

 $/bola/ \Rightarrow /bo/ - /la/;$ 

/lápis/ ⇒ /lá/ - /pis/;

 $fazenda/ \Rightarrow fa/ - fa/ - fa/;$ 

 $/gelatina/ \Rightarrow /ge/ - /la/ - /ti/ - /na/$ .

Segmentação Fonêmica: A criança deve separar uma palavra falada pero apricador nos fonemas componentes.

Instruções: Vou dizer uma palavra, e você vai fingir ser o robô, repetindo a palavra bem devagar, mas agora falando as partes menores ainda da palavra, falando cada som separadamente.

Treino: separar os fonemas de:

/nó/ ⇒ /n/ - /ó/;

### APPENDIX K

```
/dia/ \Rightarrow /d/-/i/ - /a/;

Teste: separar os fonemas de:
/pé/ \Rightarrow /p/ - /e/;
/aco/ \Rightarrow /a/-/c/ - /o/;
/casa/ \Rightarrow /c/ - /a/-/s/ - /a/;
/chave/ \Rightarrow /ch/ - /a/-/v/ - /e/.
```

Manipulação Silábica: A criança deve adicionar e subtrair sílabas de palavras dizendo qual a palavra formada.

Instruções: Você vai dizer como fica uma palavra quando se coloca ou se tira um pedaço.

Treino:

adicionar /rrão/ ao fim de /maca/  $\Rightarrow$  /macarrão/;

subtrair /sa/ do início de /sapato/ ⇒ /pato/.

Teste:

adicionar /na/ ao fim de /per/ ⇒ /perna/;

subtrair /ba/ do início de /bater/ ⇒ /ter/;

adicionar /bo/ ao início de /neca/ ⇒ /boneca/;

subtrair /da/ do fim de /salada/ ⇒ /sala/.

Manipulação Fonêmica: A criança deve adicionar e subtrair fonemas de palavras dizendo qual a palavra formada.

Instruções: Você vai dizer como fica uma palavra quando se coloca (ou se tira) um pedaço.

Treino:

adicionar /r/ no fim de /come/ ⇒ /comer/;

subtrair /p/ do início de /punha/ ⇒ /unha/.

Teste:

adicionar /r/ no fim de /pisca/ ⇒ /piscar/;

subtrair /f/ do início de /falta/ ⇒ /alta/;

adicionar /l/ no início de /ouça/ ⇒ /louça/;

subtrair /r/ do fim de /calor/ ⇒ /calo/.

Transposição Silábica: A criança deve inverter as sílabas de palavras dizendo qual a palavra formada.

Instruções: Você vai falar uma palavra de trás para frente, invertendo as partes da palavra.

Treino: inverter as sílabas de:

 $/pata/ \Rightarrow /tapa/;$ 

 $/dona/ \Rightarrow /nado/;$ 

Teste: inverter as sílabas de:

/boca/ ⇒ /cabo/;

 $lobo/ \Rightarrow lolo/;$ 

### APPENDIX L

/toma/ ⇒ /mato/;

/faço/ ⇒ /sofá/.

**Transposição Fonêmica**: A criança deve inverter os fonemas de palavras dizendo qual a palavra formada. *Instruções*: Agora você vai falar a palavra de trás para frente, mas invertendo cada som da palavra.

Treino: inverter os fonemas de:

/és/ ⇒ /sé/;

/sai/ ⇒ /ias/;

Teste: inverter os fonemas de:

/olá/ ⇒ /alô/;

/sala/ ⇒ /alas/;

/olé/ ⇒ /elo/;

/alisa/  $\Rightarrow$  /asila/.