

THE PLACE OF PORTUGUESE PHONETICS/ PHONOLOGY IN PORTUGUESE OFFICIAL DOCUMENTS OF SCHOOL EDUCATION¹

Siane Gois Cavalcanti RODRIGUES*
Cristina Manuela SÁ**

- **ABSTRACT:** The grammatical nomenclature in effect in Portugal until 2003 dates back to 1967. However, in 2007, a new linguistic terminology was instituted with the publication of the Terminological Dictionary (TD). The dictionary was the result of the revised Linguistic Terminology for Elementary, Middle and High School (LTEMHS), analyzed in this study. In 2015, another important document entered into effect: the Portuguese Program and Curriculum Goals for Elementary, Middle and High School, (PPCGEMHS). Considering the importance of Phonetics and Phonology in reflecting on language and broadening linguistic knowledge, and taking into account the fact that, traditionally, these areas have been poorly represented in Portuguese school curricula (VELOSO, 2006), the objectives of this research are: to analyze how much Phonetics and Phonology are covered in the PPCGEMHS in the 3rd cycle of school education² and analyze whether the entries in the revised LTEMHS cover the content of these fields as prescribed by the PPCGEMHS. This study was based on the works of Cagliari (2009), Veloso (2006), Veloso and Rodrigues (2002), and our findings reveal that: those subject-matters are poorly represented in the PPCGEMHS; the entries in the revised LTEMHS do not cover all the content prescribed by the PPCGEMHS for those areas; and there are terminological errors and theoretical imprecision in the way the entries investigated have been written.
- **KEYWORDS:** Phonetics. Phonology. Portuguese Language Teaching. Curriculum. School Education.

Introduction

Until 2003, the linguistic terminology in effect for Portuguese language instruction in elementary, middle and high school in Portugal dated back to 1967. That year, a

* Federal University of Pernambuco (UFPE), Center for Art and Communication, Recife – PE - Brazil. Language Department. sianegois@yahoo.com.br. ORCID: 0000-0002-5263-2670.

** Universidade de Aveiro (UA), Department of Education and Psychology, Aveiro - Portugal. Researcher for the Portuguese Government's Science and Technology Foundation. cristina@ua.pt. ORCID: 0000-0002-8768-661X.

¹ This article was reviewed by Doctor Orison Marden Bandeira de Melo Júnior, English professor of the Language Department of UFRN, Natal (RN)/Brazil. Note: All translations of citations are the Translators unless otherwise referenced.

² In Brazil, the 3rd cycle of Portuguese school education is equivalent to grades 7, 8, and 9 of middle school.

team of linguists, responding to the Ministry of Education's request and based on their pedagogical experience, revised the terminology in a document entitled Linguistic Terminology for Elementary, Middle and High School (LTEMHS),³ which was ratified by Decree nº 1488/2004 (LISBOA, 2004). Their initiative was justified

[...] by the broadly shared need of specialists and professors to correct terminological errors and to replace outdated Portuguese grammatical nomenclature approved by Decree nº 22 664, April 28, 1967. (LISBOA, 2007a, p. 2476, our translation).⁴

According to this Decree, the LTEMHS would undergo a trial period of three academic years, which began in 2004/2005. At the end of the trial period, it seemed that the LTEMHS would be implemented definitively in the country, even though the Decree itself had foreseen the inclusion of possible alterations presented by the results of the trial period. Nevertheless, upon implementation, the document was the target of numerous critiques by educators, linguists and intellectuals who identified various weak points throughout the document. In January 2007, a petition against the document with 8,132 signatures was submitted to public authorities (The Presidency of the Republic and the Assembly of the Republic, as well as the Ministry of Education). Reinforcing this movement, a group of 51 university professors sent a letter to the Ministry of Education requesting the suspension of the linguistic terminology.

However, what led to Decree nº 476/2007 (LISBOA, 2007a), which determined that the LTEMHS be subject to scientific review and pedagogical adaptation, were, according to the Decree, terminological inadequacies and scientific generalizations verified during the pilot experiment in the academic year 2005-2006, applied in fourteen groups and eight schools. The document, therefore, underwent the aforementioned revision coordinated by the General Director of Innovation and Curriculum Development of the Ministry of Education, with the collaboration of specialists.

The revision of the Linguistic Terminology for Elementary, Middle and High School (RTLEMHS) (LISBOA, 2008) was completed in 2007 and consisted of a list of entries that make up the Terminological Dictionary (TD) (LISBOA, [200-], which originated from it. The TD is an online tool for elementary, middle and high school teachers, which determines the terms to be used in Portuguese language instruction. Considering the fact that the TD contains theoretical principles, a hierarchy of terms and entries of the RTLEMHS, we chose to analyze the latter document⁵, which facilitated data collection due to its linear nature.

³ Original: *Terminologia Linguística para o Ensino Básico e Secundário* (TLEBS).

⁴ Original: “[...] pela necessidade, largamente partilhada pelos especialistas e pelos próprios professores, de corrigir os erros terminológicos e de superar a desatualização da nomenclatura gramatical portuguesa, aprovada pela Portaria n.º 22 664, de 28 de Abril de 1967.” (LISBOA, 2007a, p. 2476).

⁵ The *online* TD, given its hypertextual nature, is not organized linearly. Readers, then, can define their own convenient research strategies.

The RTLEMHS presented a reduced list of terms (equivalent to 40% of terms included in the original list) as they were found to be most used in the context of Portuguese language instruction in schools.

Despite criticisms about the first version of the LTEMHS, Veloso (2006) positively evaluated the section of the document dedicated to phonetics and phonology. He emphasized his satisfaction upon noting the quantitative prominence of these areas in the LTEMHS (LISBOA, 2004), which was then in effect, compared to the Grammatical Nomenclature of 1967, in use until 2003. The nearly 70 entries in this document went up to 113, in a context where morphology and syntax were traditionally dominant. Such dominance, as claimed by the author, allows elementary and middle school students to master basic concepts in those areas, but not in phonetics and phonology.

After the approval of the RTLEMHS in 2007, elementary, middle and high schools in Portugal underwent two reforms. Those of special interest to this study, besides the terminological dictionary, are the curriculum guidelines that came into effect in the country beginning in 2015 with the publication of the Portuguese Program and Curriculum Goals For Elementary, Middle and High School (BUESCU *et al.*, 2015), henceforth referred to as PPCGEMHS⁶. This document presents the curriculum goals, establishing objectives to be achieved throughout the three cycles of school education⁷, and the contents to be followed. To ensure its operation, performance indicators are proposed. According to the document, this organization “[...] promotes the expansion of core curriculum, the establishment of a coherent course, the cultivation of autonomous speakers and writers in the multifunctional and cultural use of language, capable of progressing to higher levels of education.” (BUESCU *et al.*, 2015, p. 3, our translation)⁸.

In the three cycles of school education, the program and its respective goals are structured around four domains (areas of instruction): orality; reading and writing; literary education, and grammar. In the 3rd cycle, reading and writing are separated and become independent domains.

The document is organized as described below. The introductory text is soon followed by a list of twenty-one general objectives of Portuguese language instruction, organized around the aforementioned domains. Next, each of the three cycles of school education is characterized. After this characterization, tables are presented, describing the context of each domain and establishing correlations with curriculum goals (which are represented by numbers in the tables and detailed in the final part of the document),

⁶ This document was based on the Portuguese Curriculum Goals for School Education, *Metas Curriculares de Português do Ensino Básico*, approved on August 3rd, 2012 by the Office nº 5305/2012 during the Revision of the Curriculum Structure of the same year.

⁷ In Portugal, the 9 years of elementary and middle school, which are equivalent to Brazil’s fundamental education) are distributed into three cycles as follows: 1st cycle - 1st, 2nd, 3rd, and 4th years; 2nd cycle - 5th and 6th years; 3rd cycle - 7th, 8th, and 9th years.

⁸ Original: “[...] permite expandir um núcleo curricular, configurar um percurso coerente, delinear o perfil de um falante e de um escrevente autónomo na utilização multifuncional e cultural da língua, capaz de progredir para outros graus de ensino.” (BUESCU *et al.*, 2015, p. 3).

followed by a short text on methodology and evaluation. Finally, the books and texts that should be used in each cycle are listed in attachments.

Considering that, traditionally, Portuguese phonetics and phonology are not sufficiently covered in school curricula in Portugal (VELOSO, 2006) and the importance of these fields for students to reflect upon the language and expand linguistic knowledge, this study sought to answer the following questions: How much are phonetics and phonology covered in the PPCGEMHS? Does the RTLEMHS offer theoretical support for the goals defined by the PPCGEMHS involving the areas in question? Our objectives were: to analyze how much phonetics and phonology are covered in the three cycles of school education in the PPCGEMHS⁹ and whether the entries of the RTLEMHS correspond to the content of these areas prescribed by the PPCGEMHS. To this end, an evaluation of the content included for the three cycles to be analyzed was carried out. We observed whether the content of the first two cycles supports the work proposed in the third cycle and examined the RTLEMHS to verify whether concepts necessary to follow the content in question were adequately defined.

Phonetics and Phonology in School Education in Portugal

Traditionally, phonetics and phonology are not sufficiently covered in school curricula both in Brazil (see CAGLIARI, 2009¹⁰) and in Portugal (VELOSO, 2006). For this reason, Veloso and Rodrigues (2002) defend the “extension and reorganization” of these areas in the third cycle of school education in Portugal. To justify the proposal, the authors present a list of theoretical and methodological arguments, which we now discuss.

The first argument, mounting their defense, is that phonology is a fundamental grammatical component of every natural language and, therefore, the restriction of grammatical instruction to morphosyntax is limiting. The second and third arguments present the need to improve students’ “hearing sensitivity,” increasing their capacity to perceive levels of sound and their written representations as two planes of language, which leads positively to a reduction of written errors. The fourth responds to the issue of the evolution of Portuguese phonetics throughout history, predicted by current programs and present in school grammar. The fifth argument is based on the existence of content prescribed by the programs that mobilize knowledge in the field of phonetics, such as, in literary studies, “[...] stylistic resources based on rhythmic or phonic standards.” (VELOSO; RODRIGUES, 2002, p. 237, our translation)¹¹. In

⁹ The three cycles of Portuguese elementary and middle School correspond to the initial and final years of Brazilian school education.

¹⁰ Cagliari (2009) offers important reflections on the *status quo* of phonetic and phonological instruction in Brazilian schools.

¹¹ Original: “[...] recursos estilísticos baseados em critérios rítmicos ou fônicos.” (VELOSO; RODRIGUES, 2002, p. 237).

their sixth argument, they point out the frequency of phonological work in the foreign language classroom setting, such as the articulation of segments and the observation of those that contrast with the phonetic inventory of the mother tongue of the students and those that do not. Lastly, the seventh and eighth arguments recall the importance of students' familiarity with phonetic symbols for their efficient use of dictionaries and potential interdisciplinary work inherent to phonetics and phonology. Having listed these arguments, the analysis conducted directly relates to the objectives of the present study and, thus, is of particular interest to us that is the approach given by four school grammars and portuguese curricular programs to phonetic and phonology (VELOSO; RODRIGUES, 2002).

By analyzing the four grammar books *Da Comunicação à Expressão*, by Azeredo *et al.* (1985); *Compêndio de Gramática Portuguesa: Ensino Secundário*, by Ferreira and Figueiredo (1990); *Da Palavra ao Texto: Gramática da Língua Portuguesa*, by Figueiredo and Bizarro (1997) and *Gramática de Português*, by Pinto (1998)¹², direct and indirect approaches to phonetic and phonological content were observed.

To analyze the direct approaches, the authors verified:

- If these grammar books dedicate a separate chapter on the notions of phonetics and phonology;
- Whether phonetics and phonology are explicitly considered as a complete chapter within the study of language or whether, alternatively, these two domains are explicitly secondary;
- If a systematic distinction is made between the phonic plane and the graphic plane;
- If the IPA symbols are used correctly;
- If any description of the speech apparatus is covered;
- If some version of the traditional articulatory classification of consonants and vowels of Portuguese is presented;
- Which strictly phonetic or phonological notions are the subject of explicit definitions. (VELOSO; RODRIGUES, 2002, p. 241, our translation)¹³.

¹² We clarify that these books were not consulted by us during the development of the present search. Thus, they don't make part of this article references.

¹³ Original: "Se cada uma destas gramáticas reserva um capítulo à parte para a exposição das noções de fonética e fonologia; Se explicitamente se considera a fonética e a fonologia como um capítulo de pleno direito dentro do estudo da linguagem ou se, em alternativa, esses dois domínios são expressamente secundarizados; Se se estabelece uma distinção sistemática entre o plano fónico e o plano gráfico; Se são corretamente utilizados os símbolos do AFI; Se há lugar para qualquer tipo de descrição do aparelho fonador; Se é apresentada alguma versão da classificação articulatória tradicional das consoantes e das vogais do português; Quais as noções estritamente fonéticas ou fonológicas que são objecto de definições explícitas." (VELOSO; RODRIGUES, 2002, p. 241).

The results indicated that the four grammar books dedicated a specific chapter for phonetics and phonology (although one book presented this information as a subchapter of morphology). Nonetheless, the authors concluded that the approach to these areas by half of the grammar books analyzed (namely *Da Comunicação à Expressão*, by Azeredo *et al.* and *Compêndio de Gramática Portuguesa: Ensino Secundário*, by Ferreira and Figueiredo) was, in their own words, “clearly secondary.” Morphosyntax was the field that enjoyed most prestige. In the other two books ((*Da Palavra ao Texto: Gramática da Língua Portuguesa*, by Figueiredo and Bizarro and *Gramática de Português*, by Pinto), phonetics, phonology, morphology and syntax were equally covered. The distinction between phonic and graphic planes was properly made by Azeredo [the authors highlight that the other three books did not include the International Phonetic Alphabet symbols] and Pinto. It was not clearly made by the other two. In regard to speech apparatus, only Figueiredo and Bizarro did not include explanations. Veloso and Rodrigues point to the fact that all authors presented the articulatory classification of Portuguese sounds as well as explanations about diphthongs, vowels, consonants, syllables and phonemes, and basic notions of phonetics and phonology.

Concerning the presence of these subject areas in Portuguese programs¹⁴ in effect during the period of the study, Veloso and Rodrigues (2002) verified that, in consonance with the results of the analysis of the grammar books, morphosyntax was more prominent than phonetics and phonology. The content was briefly presented in the high school program and, according to them, in a “fairly disorganized manner”: difference between vowels, semi-vowels and consonants; separation between voiced and unvoiced, oral and nasal sounds; stress, pause and rhythm. The indirect presentation, in turn, was found in the following content: orthography, regional variation, literary analysis, and phonetic evolution.

Based on the results of the analyses, Veloso and Rodrigues (2002, p. 243, our translation) make a suggestion that they claim is aligned with the objectives of the programs. In their words, “[...] phonetics and phonology, in the levels of education herein considered, urgently need to become more viable and systematized both visibly and deliberately.”¹⁵ Next, they propose a list of basic notions of the subject matters which, in their opinion, should be covered not only in programs, but also in grammar books and Portuguese language classes.

In a posterior publication Veloso (2006, p. 115, our translation) highlights the little knowledge students acquire in elementary, middle and high school Portuguese instruction in comparison to the knowledge they acquire in other levels of language analysis:

¹⁴ The documents analyzed by the authors were: for the third cycle, the Portuguese Language Programs approved by Decree nº 124/ME/91, July 31, 1991; for high school, Portuguese programs included in the document entitled Portuguese A and B Programs, 10th, 11th, and 12th years (DES, 1997).

¹⁵ Original: “[...] grande necessidade de se tornar mais viável e de se sistematizar de forma mais evidente e mais deliberada essa presença da fonética e da fonologia nos níveis de ensino aqui considerados.” (VELOSO; RODRIGUES, 2002, p. 243).

[...] there is, in fact, a noticeable deficiency in knowledge related to basic notions of phonetics and phonology in general in the EBS¹⁶. Actually, it seems realistic to assume that, in general, any student at the end of the 12th year¹⁷ of schooling should, minimally, be able to identify and classify morphosyntactic and syntactic categories or identify inflectional processes of language. However, it would be difficult for a student of this level of education to use terms such as “fricative consonant,” “open-mid vowel,” “open syllable,” among others in explicit discourse on language properties.¹⁸

Similarly, Sônia Valente Rodrigues (2005, p. 1, our translation), who is a lecturer in the Language Department of the University of Porto, argues for

[...] the introduction of phonetic and phonological concepts in elementary, middle and high school [...] as fundamental to the instruction-learning process of the mother tongue in specific areas (e.g., orthography, phonetic evolution of language, lexical relationships, stylistic resources, and versification).¹⁹

In order to present the contributions of these areas to different facets of language teaching, Rodrigues (2005) presents didactic sequences that mobilize phonetic and phonological understanding of concepts, such as homophony, alliteration, the development of oral competence. She shows how they may be applied in the context of school education.

Having understood this context, we examine, in the following sections, how much these areas are covered in official Portuguese documents currently in effect, specifically, the RTLEMHS (LISBOA, 2007b) and the PPCGEMHS (BUESCU *et al.*, 2015).

The Revision of Linguistic Terminology for Elementary, Middle and High School (RTLEMHS)

As previously stated, the RTLEMHS (LISBOA, 2007b) is one of the official Portuguese documents that comprise the *corpus* of this study. However, before our

¹⁶ Elementary, Middle and High School (*Ensino Básico and Ensino Secundário*).

¹⁷ In Brazil, this year corresponds to the third year of high school.

¹⁸ Original: “[...] existe, de facto, um défice de conhecimento explícito das noções de fonética e fonologia na generalidade do EBS. Com efeito, parece-me realista admitir que, de uma forma geral, qualquer aluno do final do 12º ano de escolaridade saberá minimamente identificar e classificar categorias morfossintactas e sintactas ou ainda identificar processos flexionais da língua; porém dificilmente um aluno desse nível de escolaridade usará termos como ‘consoante fricativa’, ‘vogal semifechada’, ‘sílabas abertas’, entre outros, no seu discurso explícito sobre as propriedades da sua língua.” (VELOSO, 2006, p. 115).

¹⁹ Original: “[...] a introdução de conceitos de fonética e de fonologia no ensino básico e no ensino secundário [...] como fundamental para o ensino-aprendizagem da língua materna, em domínios tão concretos como o da ortografia, da evolução fonética da língua, das relações lexicais, dos recursos estilísticos, da versificação.” (RODRIGUES, 2005, p. 1).

analysis, we find it necessary to investigate the research carried out by Portuguese phonologists and/or phoneticians dedicated to the study of the original version of the LTEMHS (LISBOA, 2004). We aim to compare their research with ours and to analyze whether the changes to the text at the time of its revision were, in fact, positive regarding the subject areas of this study.

Similarly, before doing the analysis of the RTLEMHS, we searched for the opinions of Portuguese researchers (in the field of Portuguese linguistics as well as Portuguese language instruction) about this document through the Internet. However, we were surprised to find there were no publications on the topic despite its importance in the instruction of Portuguese in elementary, middle and high school

In regard to the original document – the LTEMHS 2004 – the only publication we found was the aforementioned article by Veloso (2006), entitled “Phonetics and Phonology in the New Linguistic Terminology for Elementary, Middle and High School” [*A fonética e a fonologia na nova Terminologia Linguística para os ensinós básico e secundário*]. We want to sidetrack a little to present the conclusions of the scholar’s analysis.

In his quantitative analysis of the phonetics and phonology notions included in the document, Veloso makes an inventory of terms, totaling 113 entries (as previously stated). He groups them into 10 categories and informs the percentage values that each category occupies in the terminological dictionary under analysis: 1) Types/Articulatory Categories (28, 3%); 2) Prosody (17.7%); 3) Articulation Phonetics/Speech Apparatus (10, 6%); 4) Combination Phonetics (9.8%); 5) Acoustic Phonetics (8%); 6) Other Notions (8%); 7) Syllabic structures (7.1%); (8) Phonology (4.4%); (9) Definition of the Disciplines (4.4%); (10) Perceptive Phonetics (1.7%).

Having presented these data, he points out that it is the responsibility of those involved in school education to define the strategies for teaching them and that there are different levels of importance in this inventory of terms, which results in the need to rank them adequately for different school levels.

Next, in discussing the “[...] structuring principles underlying the set of phonological and phonological terms.” (VELOSO, 2006, p. 121, our translation)²⁰ in the LTEMHS, he believes they are organized in a balanced manner, appropriate for the intended audience and approves of the respect for the nomenclature of “pedagogical tradition.” In the case of terms that have become the subject of recent linguistic discussion (such as diphthong, triphthong and nasal vowel), the document chooses to “[...] continue to prescribe [...] terms already reaffirmed and established by decades of a pedagogical tradition that is crystallized in some way, to the detriment of more recent terms which are the objects of discussion in the linguistic community.” (VELOSO, 2006, p. 122, our translation).²¹

²⁰ Original: “[...] princípios estruturadores subjacentes ao conjunto de termos de fonética e de fonologia.” (VELOSO, 2006, p. 121).

²¹ Original: “[...] continuar a prescrever [...] termos já firmados e estabelecidos por décadas de uma tradição pedagógica de alguma forma já cristalizada, em detrimento de termos mais recentes e que são objectos de discussão na comunidade

For Veloso (2006), the introduction of notions that reveal significant advances in the development of linguistic studies in the field of phonetics and phonology is as important as the maintenance of the terms already established by tradition. He devotes the final section of his text to address two aspects of this issue: the distinction between phonetic and phonological levels and the emphasis given to the prosodic levels of the phonological plane. The paragraph that introduces the conclusion of his article summarizes very clearly his evaluation of the first version of the LTEMHS:

As stated in several parts of this text, I consider that the LTEMHS's list of phonetic and phonological entries represents a significant improvement to NG1967, both quantitatively and in terms of its appropriateness to the most recent developments in linguistics. However, as has been also indicated, it keeps 'significant areas of consensus' which, according to the objectives set for the LTEMHS, [...] should be maintained. (VELOSO, 2006, p. 125, our translation).²²

Now we analyze the document that followed the 2004 LTEMHS and preceded the publication of the online TD. The Revision of Linguistic Terminology for Elementary, Middle and High School (RTLEMHS) was published in September 2007. In the first pages of the RTLEMHS, readers are informed about what the document is (and what it is not): it is a normative text which determines the terms to be used in language instruction; in other words, it is a terminological dictionary. However, it is not a grammar book, nor a program, nor a list of contents. It states that

As it is known, the LTEMHS is a supporting tool for grammar instruction and the study of texts. It is a normative document that intends to establish the terms to be used when describing and analyzing different aspects of language functioning. As a normative document, it should not be confused with a program, a grammar book, a list of contents; it is better understood as a terminological dictionary. (LISBOA, 2007b, p. 5, our translation).²³

In addition, it is worth noting that, from its inception, the document was not meant to be a list of terms to be taught at the different years of elementary, middle and high school,

dos linguistas." (VELOSO, 2006, p. 122).

²² Original: "Como já foi dito em diversas partes deste texto, considero que a lista de entradas de fonética e fonologia da TLEBS representa um avanço significativo relativamente à NG1967, quer em termos quantitativos, que em termos da sua adequação aos desenvolvimentos mais recentes da linguística enquanto ramo do saber (mantendo porém, como também foi referido, continuidades importantes relativamente às 'zonas significativas de consenso' que, segundo os objetivos fixados para a TLEBS [...] devem ser mantidos." (VELOSO, 2006, p. 125).

²³ Original: "Como é sabido, a TLEBS constitui uma ferramenta de auxílio ao ensino da gramática e ao estudo dos textos, sendo um documento normativo, que pretende fixar os termos a utilizar na descrição e análise de diferentes aspectos do funcionamento da língua. Enquanto documento normativo, não se confunde com um programa, com uma gramática escolar ou com uma lista de conteúdos, devendo ser entendido como dicionário terminológico que é." (LISBOA, 2007b, p. 5).

and the instructor, upon selecting the material, would be responsible for aligning the proposal with the curriculum guidelines. In order to minimize the difficulties resulting from this orientation, the RTLEMHS presented a shorter list of terms, corresponding to only 40% of the entries in the first list. The authors included those that they believed would probably be used in Portuguese language instruction in schools.

The document is thus structured: the context of its production is followed by a section in which the methodology and criteria of the LTEMHS revision are explained. Next, they present the assumptions that led to the revision; the main changes in relation to the first document; the criteria for the revision; the hierarchy of terms, and those related to the revision of the database; the theoretical perspectives that fostered the revision (discourse analysis, rhetoric, pragmatics and textual linguistics); and finally, the methodology adopted for the development of the work.

The RTLEMHS draws readers' attention to the importance of the "hierarchy of terms" so they can understand how the proposed terms relate to one another and to the different domains of linguistics. It also informs them about the approach adopted in relation to the terms that belong to different areas of this science: "As several areas of linguistics overlap, we should understand that the inclusion of terms in a specific domain does not mean its exclusion from another." (LISBOA, 2007b, p. 7, our translation).²⁴

This hierarchy is organized into five categories and their respective subcategories²⁵: a) Language, Linguistic Community, Variation and Change; b) Descriptive Linguistics; c) Discourse Analysis, Rhetoric, Pragmatics, and Textual Linguistics; d) Lexicography and e) Graphical Representation.

Phonetics and phonology, similar to other levels of linguistic analysis, are situated under the category of Descriptive Linguistics and include the following content: phonetics and phonology (sounds and phonemes: phoneme, vowel, semi-vowel, consonant; characterization of sounds: form and point of articulation; sound sequences: diphthong, semantic group, hiatus); prosody/prosodic level (acoustic characteristics: pitch, duration, intensity; syllable: syllable formats (open and closed), syllable stress (tonic and atonic), classification of words according to the number of syllables (tonic and atonic – monosyllabic, disyllabic, trisyllabic, polysyllabic); stress (classification of words according to the nucleus position – high-pitched, low-pitched and irregular words), stress properties of syllables (atonic and tonic syllables); intonation: pauses (silent and full); phonological processes (insertion, suppression and alteration of segments – assimilation, dissimilation, nasalization, diphthongization, reduction, crasis); metathesis.

Phonetics and phonology, in comparison to other levels of linguistic analysis, is well represented in the RTLEMHS, which takes into account issues related to sound

²⁴ Original: "Havendo várias áreas de cruzamento entre disciplinas da Linguística, deve entender-se que a opção por inserir um termo num determinado domínio não significa excluir o seu tratamento por outra disciplina da Linguística." (LISBOA, 2007b, p. 7).

²⁵ Considering the objectives of this research, we chose to include only the manner in which the document presents the subcategories related to phonetics and phonology.

articulation, the characteristics of consonants, vowels and semivowels, and phonological processes. The study of articulation is of fundamental importance for students to reflect on the characteristics of sounds that make up the phonetic and phonological inventory of their native language. The presentation of phonological processes, in turn, encourages their reflection on the phonetic changes that occur in words from natural languages, from a synchronic and diachronic perspective, motivated internally (linguistically) and externally (extra-linguistically).

Another issue to be observed – upon reading the terms contemplated in the document – is the possibility of articulation between items of different disciplines. As we observe closely the hierarchy of phonetic and phonological terms – specifically those related to phonological processes (which, as stated, are found under Descriptive Linguistics) – and the terms that pertain to language, linguistic community, variation and change, we find that the theoretical approach to these topics is coherent. We should pinpoint that, in the presentation of entries in the RTLEMHS, linguistic change is defined as:

A phenomenon that results from the projection of a community language in the history of this community and its descendent communities. [...] Linguistic change is observed in all grammatical levels and results from the combination of different factors: internal factors, related to the structure of the language itself, and external factors, primarily of a geographical and social nature. (LISBOA, 2007b, p. 32, our translation).²⁶

The perspective of linguistic change transcribed above (as linguistic or extra-linguistic) theoretically concurs with the conception of subjacent language in the study of the aforementioned phonological processes. As previously mentioned, the RTLEMHS aims to be “[...] a supporting tool for grammar instruction and the study of texts. It is a normative document that intends to establish the terms to be used when describing and analyzing different aspects of language functioning.” (LISBOA, 2007b, p. 5, our translation).²⁷

Based on this objective, we chose to analyze whether this tool, after the revision published in 2007, actually continues to offer the necessary support for teachers who work with the content, the curriculum goals and the performance indicators prescribed by the *Program and Curriculum Goals for Portuguese School Education* (BUESCU *et al.*, 2015). In the following section we present our detailed investigation of the content

²⁶ Original: “Fenómeno que resulta da projecção da língua de uma comunidade na história dessa comunidade e das suas comunidades descendentes. [...] A mudança linguística observa-se a todos os níveis gramaticais e resulta da combinação de diferentes factores de mudança: os factores internos, que são constituídos pela própria estrutura da língua, e os factores externos, de natureza sobretudo geográfica e social.” (LISBOA, 2007b, p. 32).

²⁷ Original: “[...] uma ferramenta de auxílio ao ensino da gramática e ao estudo dos textos, sendo um documento normativo, que pretende fixar os termos a utilizar na descrição e análise de diferentes aspectos do funcionamento da língua.” (LISBOA, 2007b, p. 5).

prescribed by the aforementioned program for the 9th grade and, more superficially, for the 8th grade.

We chose 8th and 9th grades because we noticed that, in the third cycle, phonetic and phonological content is addressed specifically in those years. It is important to point out that different from what we verified in the 9th grade, in which phonetics and phonology are presented in three categories, as shown in Table 2 in the next section, in the 8th grade, the content pertaining to these areas is presented in a single category (orality), only considering phonological variation in oral texts and the distinction of geographical contexts in which variations occur (see Table 1 in the next section).

Taking into consideration this methodological strategy, our observation of the RTLEMHS focuses on the analysis of those entries that directly support the professor in meeting curriculum goals and the performance indicators defined for the 9th grade and addressing the content associated with them. Besides, as previously stated, it is in this school year that more knowledge of the areas is imparted. Furthermore, the content for the 9th grade curriculum encompasses that which is designated to the 8th grade.

Phonetics and Phonology in the Program and Curriculum Goals for Portuguese School Education and in the RTLEMHS

The analysis of the content, goals and performance indicators defined for the last two years of the 3rd cycle required the examination of phonetic and phonological contents necessary to reach such goals during the first and second cycles. Thus, even though an analysis of the programs for the first and second cycles may divert our attention from the objectives of the present investigation, we find it necessary to present them below.

The phonetic and phonological content related to the first cycle is organized in progressive levels of complexity, which allows students to develop skills that are necessary for the acquisition and consolidation of reading and writing.

In the first year, working on students' perception, consciousness and sensitization leads them to expand knowledge of the oral modality of their native language, already consolidated before they start school. This way, students develop awareness, for example, when working with minimum pairs, that the exchange of sounds within a word can change its meaning. They understand that words are formed by different numbers of syllables and that, for this reason, some words are larger than others (monosyllables, disyllables, trisyllables and polysyllables), and they acquire intrasyllabic awareness, that is, the understanding that syllables are made up of minimal units.

In the second year, students continue to develop syllabic and intrasyllabic awareness, focusing on the way syllables, vowels, semivowels and consonants are combined, leading to the formation of digraphs and diphthongs; the graphophonemic relationship is also taught. Furthermore, students learn all the letters of the alphabet (in uppercase and lowercase), as well as the relationship between graphemes and phonemes.

In the third year, phonological awareness, specifically syllabic and intrasyllabic, is consolidated. Stress is also taught so that students learn to classify words based on the position of the stressed syllable, the nucleus.

Despite this development of phonological awareness, which so positively affects the consolidation of writing, we noticed that the PPCGEMHS (BUESCU *et al.*, 2015) does not prescribe phonetic and phonological content for the 4th, 5th, 6th, and 7th grades (which correspond to the entire second cycle and the first year of the third cycle).

When reading the document, we also realize that other levels of linguistic analysis, such as morphology, lexicology and syntax, are continuously addressed during almost the whole school education, thus taking more place in the curriculum. Morphology is assigned to grades one through eight; lexicology, to grades one to nine, and syntax, to grades three to nine.

In the document two general objectives are outlined for the third cycle: to constantly consolidate writing and reading skills, developed in the previous cycle and to “[...] develop and substantiate their use so that more knowledge can be acquired and more complex skills, naturally adapted to students’ age group, be progressively developed.” (BUESCU *et al.*, 2015, p. 27, our translation).²⁸ We consider that the lack of phonetic and phonological content during four consecutive years hinders the accomplishment of the objectives above, because it is impossible to consolidate skills in the third cycle that were not developed in the second cycle. Similarly, “more complex skills [that can] be progressively developed” is suddenly interrupted with this break.

As stated previously, our research focuses specifically on the analysis of the sections of the document that discuss phonetics and phonology in the 8th and 9th school years. This is our focus from this point onwards.

The section of the document entitled “Characterization” presents the specific objectives to be reached in reading, writing and literary education; then it makes explicit which ones are related to grammar, a field of linguistics that, the text claims, allows interaction with other fields. Thus, the progressive (and annual) consolidation of morphological and syntactic knowledge is planned throughout the cycle.

In the field of phonology it is determined that the main phonological processes should be addressed through the study of texts in which they are explicitly described. Therefore, it is indicated that, at this level, phonology be approached. This does not rule out, as seen in the following text, a continuous retrieval of knowledge relevant to the phonetical plane.

We now turn to the phonological concepts that are included in the tables, listed as the content of grades eight and nine. Five domains of language study (orality, reading, writing, literary education and grammar) are related to specific content, distributed in blocks.

²⁸ Original: “[...] desenvolver e consubstanciar a sua utilização, para a aprendizagem de outros saberes e para o desenvolvimento de capacidades progressivamente mais complexas, adaptadas, naturalmente, à faixa etária em consideração.” (BUESCU *et al.*, 2015, p. 27).

The table below is our adaptation of the tables that show curriculum goals, performance indicators and content to be addressed in the 8th grade, related to phonetics/phonology, included in the PPCGEMHS:

Table 1 –Phonetic/Phonological Content for the 8th Grade

Domain	Curriculum Goals Performance Indicators	Content
Orality	6. Recognize language variation 1. Identify, in oral texts, variation in the phonological, lexical, and syntactic planes. 2. Distinguish geographical contexts in which different varieties of Portuguese occur.	Language variation phonological, lexical and syntactic planes Geographical contexts

Source: Buescu *et al.* (2015, p. 80).

When reading the table, we understand that, in the 8th grade, phonological concepts are only presented in the domain of orality, in the block entitled language variation, which encompasses phonological, lexical, syntactic, and geographical contexts. The curriculum goal defined for the phonological content is accompanied by two performance indicators: “Identify, in oral texts, variation in the phonological, lexical, and syntactic planes” and “Distinguish geographical contexts in which different varieties of Portuguese occur” (BUESCU *et al.*, 2015, p. 80, our translation)²⁹.

Although the fields of phonetics and phonology are interdependent, the identification, at this level, of that which pertains to phonology (and, consequently, to phonetics) is very important for students, because they can consolidate the idea that, in the realm of their native language sounds, there are multiple possibilities of phonetic realization of a single sound and that not every sound affects communication. After affirming that this knowledge is important at this level, we consider that abstraction skills should be systematically developed throughout the previous cycles. Similarly, the knowledge of what refers to the geographical plane (and, consequently, to other planes, such as social and diachronic) in language is essential for students to differentiate norms.

In order to understand the scope of these observations, we should imagine that a teacher decides to explore the phonological variations of European Portuguese and Brazilian Portuguese, specifically with regard to the phonemic use of the grapheme “l” at the end of a syllable (for example, in the Portuguese word for salt, “sal”). To do so, the teacher could show students that, in the great majority of Brazilian Portuguese dialects, the vocalization of this segment [‘saw] occurs, whereas in a very restricted group (present in some regions of the states of Rio Grande do Sul and Santa Catarina, for example) and among the Portuguese, the phoneme observed is an velarized voiced

²⁹ Original: “Identificar, em textos orais, a variação nos planos fonológico, lexical e sintático” and “Distinguir contextos geográficos em que ocorrem diferentes variedades do português.” (BUESCU *et al.*, 2015, p. 80).

alveolar lateral [ˈsaj]. This explanation will only succeed if the following content of articulatory phonetics has already been addressed in the classroom: the characteristics of consonant segments (point and mode of articulation, voiced and unvoiced) and the properties of vowel segments (tongue position in terms of opening, anteriority and posteriority, and roundness of lips).

It is important to clarify that we do not argue for the idea that schools should train specialists in phonetics and phonology (we know it is the teacher’s responsibility to carry out the appropriate didactic transposition of these contents into the school context). We, nevertheless, defend that phonetics and phonology should take more place in the curriculum so that they can finally be recognized as rich for students’ education as morphology, lexicology and syntax, linguistic domains that, as we will discuss further on, comprise most of the Portuguese-language curriculum in general.

In the table below we present our adaptation of the tables that show curriculum goals, performance indicators and content to be addressed in the 9th grade, related to phonetics/phonology, included in the PPCGEMHS:

Table 2 – Phonetic/Phonological Content to be addressed in the 9th Grade

Domain	Curriculum Goals Performance Indicators	Content
Orality	6. Recognize language variation 1. Identify, in oral texts, variation in the phonological, lexical, and syntactic planes. 2. Distinguish geographical contexts in which different varieties of Portuguese occur.	Language variation Phonological, lexical and syntactic planes Geographical contexts
Reading	12 Recognize language variation 1. Identify, in written texts, variation in the phonological, lexical, and syntactic planes. 2. Distinguish geographical contexts in which different varieties of Portuguese occur.	Language variation Phonological, lexical and syntactic planes (identification) Historical and geographical contexts (distinction)
Grammar	24 Make explicit phonological aspects of Portuguese 1. Identify Phonological processes of insertion (apheresis, epenthesis and paragoge), suppression (apheresis, synthesis and apocope) and alteration of segments (vowel reduction, assimilation, dissimilation, metathesis).	Phonology Phonological processes of insertion (apheresis, epenthesis and paragoge), suppression (apheresis, synthesis and apocope) and alteration of segments (vowel reduction, assimilation, dissimilation, metathesis).

Source: Based on Buescu *et al.* (2015, p. 6-24).

Table 2 shows that in the 9th Grade (the last year of the 3rd cycle), there is a considerable expansion of phonological concepts, which are found in three different domains: orality, reading and grammar. For this reason and because the incorporation of these concepts requires mastery of various notions that underlie them, we carry out a closer and more detailed analysis of this part of the program. Thus, in orality, the content determined for the 8th year is repeated. The same happens in reading and language variation. However, the identification of what is in the phonological plane and the distinction of what is in the geographical plane are included.

The verbs “recognize,” “identify” and “distinguish,” which introduce these goals and performance indicators draw our attention due to their strictly content-related nature. We know that for schools to educate young people who can fight against linguistic prejudices that are materialized through socio-ideological and historic-cultural value judgments, school programs must have a reflective perspective. The actions triggered by these verbs must be associated with attitudinal competences, which are important in the fight against such prejudices: respect for and appreciation of linguistic variants of lesser social prestige used by rural communities or groups with low education levels, for example. In other words, the actions of recognizing, identifying, distinguishing and making explicit do not discard the respect and value placed in different language norms.

In addition, we consider that the performance indicator “Identify, in oral texts, variation in the phonological plane” is very broad and does not provide the teacher with the necessary means to achieve it. The term “phonological variation” covers a relatively large range of phonological phenomena, among which are: various modes of vowel and consonant reduction; vowel variation based on their positions in words (tonic, pre-tonic, oral and nasal post-tonic, mid-vowels, etc.); phonetic boosting and palatalization. This broad range is aggravated by the omission of the reason why these issues are addressed in Portuguese language classes, affecting the teaching dimension of the content. In other words, with which general teaching objective is the development of this competency associated? Is the nature and characteristics of the Portuguese phonological system addressed in contrast to that of the written alphabet? Perhaps the reason for this gap is that there is no dialogue between the very performance indicators: from the way the text was written, there is no relationship between the content of orality and the content of reading.

In this context, the terminological imprecision aggravates it even more: in reading, students should identify, in written texts, variation in the phonological plane. As it is widely known, orthography does not allow variations. What actually happens is that the phonological system interferes in the alphabetic-orthographic system, especially during the process of learning how to write. In other words, there is no phonological variation in writing, but rather a phonological system that can interfere in the writing system. Thus, “transgressions” in the writing system, motivated by a phonological process, is the result of students’ phonetic-phonological projection. They project something that stems from speech in writing.

In Grammar, the content listed is related to the phonological processes of insertion, suppression, alteration, and segmentation. The approach to these processes demands students' understanding of basic concepts of phonetics and phonology, which should have been taught in the previous years. In order to identify a few of them, we take the following steps:

- We present examples of each phonological process, using the following strategy: whenever they are verifiable in European Portuguese, we search for examples that illustrate them at the Camões Institute website (2008) and in the RTLEMHS (LISBOA, 2007b); whenever we do not find examples in these sources, they reflect Brazilian Portuguese usage; at times, considering that the distinction between geographical contexts is a noteworthy indicator in the document, we choose to compare the phenomena in both contexts (Europeans and Brazilian Portuguese);

- We indicate the knowledge that needs to be mobilized in order to work on a specific content, and we verify whether the PMCPED (BUESCU *et al.*, 2015) defines how such content should be approached in the years prior to the 8th and 9th grades;

- We examine the RTLEMHS (LISBOA, 2007b) in order to find whether definitions of concepts necessary for the work on the phonological processes under consideration are included; this showed us that we need to address the terms not only qualitatively: we must analyze their content as well.

We now present a reflection on phonological processes. We start with the phonological process of insertion, which includes Prothesis, Epenthesis and Paragoge:

- Prothesis: it corresponds to the addition of a unit at the beginning of the word. According to the RTLEMHS (LISBOA, 2007b), this phenomenon occurs in some dialects of European Portuguese, between an article and a noun (e.g., “a água” [the water]/ “a[i]água”. We also notice it in the speech of Brazilians and the Portuguese with lower levels of education (e.g., “voar” [fly] / “avoar”, “lembrar” [remember] / “alebrar”).³⁰ The approach to this process requires the reaffirmation (and the positive consolidation of its content) of the goal set for the 8th grade, mentioned in Table 2 (“Recognizing language variation”), and the respective performance indicators (“Identify, in oral texts, variation in the phonological, lexical, and syntactic planes” and “Distinguish geographical contexts in which different varieties of Portuguese occur”). In this case, a possible strategy is to explore the phonetic characteristics of European and Brazilian Portuguese.

- Epenthesis: it is the insertion of a segment in the middle of the word. This happens, for example, for etymological reasons, when words have consonant sequences that do not follow the Portuguese syllabic pattern (a single vowel as its nucleus). In this case, Brazilian speakers insert a vowel. The words “obstáculo” [obstacle], “corrupto” [corrupt] and “obvio” [obvious] (from the Latin *obstaculum* / *corruption* / *obvius* respectively) are pronounced with an epenthetic vowel: “obistáculo,” “corruptito,”

³⁰ Although these four forms exist in Brazilian Portuguese, the use of “voar” and “lembrar” are more socially acceptable and, therefore, used more frequently by speakers who know the norm.

and “obívio.” For teachers to explain this phonological process, as well as all others found in the PPCGEMHS, they have to teach contents related to the structure of the Portuguese syllable, which is introduced in the first three years of elementary school and is revisited/expanded afterwards. To successfully reach the goals proposed by the document, the teacher would have to introduce content not included in curriculum for the previous years, such as the components of the syllable in European Portuguese (nucleus, rhyme, onset and coda), the sonority sequencing principle and the sonority scale.

- Paragoge: it is the addition of a segment at the end of a word. In some instances, in European Portuguese, the phenomenon tends to occur at the end of the verbs in the infinitive form: a vowel that succeeds the final “r” is heard: “cantar” [sing] – “cantare” [kã’tare], “pular” [jump] – “pulare” [pu’lare]. Different instances occur in a considerable number of dialects of Brazilian Portuguese. In this case, people tend to erase this final consonant “r”: “cantar” [sing] – “canta” [kã’ta], “pular” [jump] – “pula” [pu’la]. When working with this phenomenon, students need to understand that writing and speaking have their specificities and that the first is not a faithful representation of the latter. In the PPCGEMHS, curriculum goals, performance indicators and content that relate to orality are included in every year of school education. This is innovative if we consider that, historically, school education focused on writing and reading and felt no obligation to teach formal oral genres that students normally do not learn outside school. However, among the curriculum goals, performance indicators and contents, the approach to the relationship between speech and writing is not anticipated as a continuum of discursive practices: sometimes they approach one another; sometimes they distance themselves from one another. This reflection is essential for students not to evaluate speech based on writing or vice-versa and to overcome the dichotomy according to which writing is superior to speech. However, this observation is not part of the objectives of this research and needs further investigation.

Our analysis of the RTLEMHS showed us that the presentation of these processes needs depth and detail. After the brief definition of the phenomenon – “Segment insertion: a phonological process in which a new segment is articulated in the initial (prosthesis), medial (epenthesis) and final (paragoge) position.” (LISBOA, 2007b, p. 38, our translation)³¹ – the only example they give is of epenthesis. As to the entry *phonological process*, they only offer a general definition of the expression: “A term used to refer to the changes undergone by the segments in several contextual circumstances (at the beginning and at the end of a word, next to a stressed vowel, etc.)” (LISBOA, 2007b, p. 40, our translation)³².

It is important to note that in the introductory paragraph of the document we find the purpose with which it was originally conceived:

³¹ Original: “Inserção de segmentos: Processo fonológico em que um novo segmento passa a ser articulado em posição inicial (prótese), medial (epêntese) e final (paragoge).” (LISBOA, 2007b, p. 38).

³² Original: “Termo usado para referir as modificações sofridas pelos segmentos em diversas circunstâncias contextuais (no início e no final das palavras, junto de vogal acentuada, etc.)” (LISBOA, 2007b, p. 40).

[...] a reference document for the teaching practices of Portuguese language instructors that aims to surpass the outdated Portuguese Grammar Nomenclature of 1967 and its consequent terminological derivation largely documented in textbooks for language teaching. (LISBOA, 2007b, p. 3, our translation).³³

The lack of precise, detailed and exemplified definitions of the phonological processes prescribed in the current program in Portugal in the RTLEMHS is an indicator that it needs to be revised according to the reforms of the school education programs; otherwise, it will not fulfil the purpose for which it was created. For a teacher who has not completed the Portuguese language undergraduation program recently (or who has completed it recently but has had no instruction in phonetics and phonology) and who does not attend any continuing education courses in the area, the teaching content determined by the current program will be challenging. As regards the scope of this investigation, the “[...] outdated Portuguese Grammatical Nomenclature of 1967 and its consequent terminological derivation largely documented in textbooks for language teaching.” has not been updated yet.

We shall now turn our focus to the phonological processes of suppression, which include apheresis, syncope and apocope:

Apheresis: it is the suppression of a segment at the beginning of a word. According to Mattoso Câmara Junior (2009, p. 49, our translation), “[...] in the Portuguese language, there is a tendency to suppress the initial vowel of a word that forms a syllable because of the expiratory force given to the consonant that begins the next syllable.”³⁴ In Brazil, we see this phenomenon in the speech of people with a low level of education (e.g., “arrancar” [pluck] / “rancar” and “aguentar” [endure] / “guntar”), or in the informal speech of individuals of all social groups (e.g., the deletion of the first syllable of the verb “estar” [be] in the first person, “eu estou” [I am] / “eu tou”).

According to the explanation of this process in the classroom, the reflection on speech and writing as a *continuum* of discourse practices (about which we wrote when discussing paragoge) would be an appropriate strategy. Furthermore, it would be necessary to approach this phenomenon from the perspective of linguistic variation based on the observation that apheresis refers to the level of education of the speaker (as in the forms of “arrancar” and “aguentar” aforementioned), and to the degree of formality of the situation in which the communication occurs (as in the case of the verb “estar” aforementioned). In the PPCGEMHS prior to the 8th and 9th grades there is no content related to linguistic variation. In these years, as shown in Tables 1 and 2, they are a specific content designated, in the 8th grade, to orality and, in the 9th grade, to orality and reading.

³³ Original: “[...] um documento de referência para as práticas pedagógicas dos professores de língua portuguesa com a finalidade de superar a desatualização da Nomenclatura Gramatical Portuguesa de 1967 e consequente deriva terminológica largamente documentada nos materiais didáticos destinados ao ensino da língua.” (LISBOA, 2007b, p. 3).

³⁴ Original: “Na língua Portuguesa, há tendência à aférese da vogal inicial que constitui sílaba simples, por causa da força expiratória que se dá à consoante que começa a sílaba seguinte.” (CÂMARA JUNIOR, 2009, p. 49).

- Syncope: it consists of the suppression of a medial segment. At the Camões Institute website (2008, our translation), there is a section entitled “Características Fonéticas do Português Europeu vs. Português Brasileiro” [Phonetic Characteristics of European Portuguese vs. Brazilian Portuguese].” Among the observations regarding the differences between European Portuguese and Brazilian Portuguese, we find that

The most apparent difference between European Portuguese and Brazilian Portuguese refers to the audibility of unstressed vowels, which are much more audible in Brazilian Portuguese than in European Portuguese, in which it is very short, leading sometimes to its suppression. The consequence of this feature of European Portuguese is that foreigners understand the pronunciation of Brazilians better than that of the Portuguese. They feel that, in European Portuguese, the language has only consonants.³⁵

To illustrate this phenomenon, there are four phonetic transcriptions (two from Brazilian Portuguese and two from European Portuguese) of the clause “A menina faltou ao teste de psicologia” [The girl missed the psychology exam]. We will only transcribe and comment on the two transcriptions to European Portuguese. The first occurrence is a paused and syllabic pronunciation, and the second, a colloquial pronunciation:

[ɐ mɨˈninɐ faɫˈto aw ˈtɛʃtɨ di psikuluˈziɐ]
[ɐ mˈninɐ faɫˈto aw ˈtɛʃt d psikluˈziɐ]

In the first transcription, the first vowel phoneme of the word “menina” [girl], which is in a pre-tonic position, is reduced and occurs only, according to the website, in the paused and syllabic register. In turn, in the second transcription (colloquial register), the same segment is suppressed. A similar phenomenon occurs with the second vowel phoneme of the word “psicologia” [psychology], which is also in a pre-tonic position: it is reduced in the paused register and suppressed in the colloquial register.

In order to approach this process, the knowledge of the structure of the Portuguese syllable is essential. As it is prescribed only to the first cycle, the teacher must include these contents in their syllabus in order to successfully reach 9th-grade goals.

- Apocope: it is the deletion of a segment at the end of a word. To illustrate this type of occurrence, in the second phonemic transcript above, we find the pronunciation of the words “faltou” [missed] / [faɫˈto], “teste” [exam] / [ˈtɛʃt] and “de” / [d]. In these cases, the deletion of the final vowel phoneme occurs. As we can easily notice, in most

³⁵ Original: “Uma característica do Português Europeu que constitui, talvez, a mais notória diferença em relação ao Português do Brasil diz respeito às vogais não-acentuadas que são muito mais audíveis no Português Brasileiro do que no Europeu, sendo, nesta variedade, muito reduzidas, o que leva, por vezes, à sua supressão. Esta característica do Português Europeu tem como consequência que os estrangeiros compreendem melhor a pronúncia de um brasileiro do que de um português, sentindo, neste último caso, que a língua parece ter só consoantes.” (CAMÕES INSTITUTE, 2008).

Brazilian Portuguese dialects, when infinitive verbs are pronounced, Brazilians tend to suppress the segment corresponding to the orthographic ar(r) at the end of the word. This phenomenon is seen in informal situations, in the speech of people from different Brazilian regions and different levels of education.

For students to learn this content, they need to know Portuguese syllable structure and the relationship between writing and speaking, as we mentioned previously.

In the RTLEMHS, there is no entry for apheresis (nor for apocope or syncope). It is mentioned only in the entry “segment deletion,” according to which it is a “Phonological process in which a segment stops being articulated in the initial (apocope), medial (syncope) and final (apheresis) position of the word.” (LISBOA, 2007b, p. 42, our translation)³⁶. There is a more serious issue related to terminology error than the one noted above: interchanged definition of apocope and apheresis. The first process takes place at the end of the word and the second, in the beginning, not the other way around, as we find in the terminological dictionary.

In the RTLEMHS, the following entries related to syllables can also be found: syllable, open syllable, atonic syllable, closed syllable, and tonic syllable. The definition of syllable is highlighted below:

A unit that groups sounds within the word. It may include one or more sounds as in the syllables of the word *a-pro-vei-tar*. Within the syllable, sounds may occur in the onset syllable (consonant(s) to the left of the vowel), **in the syllable nucleus (vowel or diphthong)** or in the syllable coda (consonant to the right of the vowel). The nucleus and the coda constitute the syllable rhyme. (LISBOA, 2007b, p. 41, emphasis added, our translation).³⁷

Our attention was drawn to the fact that, although words such as “onset,” “coda” and “nucleus” are included in the definition, there are no specific entries for them, providing readers with a more precise explanation of these concepts, which are fundamental to understanding syllable structure. Having identified this problem, we reiterate the need for synchrony between curriculum goals, performance indicators and the content prescribed by the PPCGEMHS, and the entries of the RTLEMHS. The misconception of the composition the syllable nucleus, emphasized in the quotation above, makes the issue even more complicated: according to the entry, the syllable nucleus can be comprised of vowels or diphthongs; however, this phenomenon is not defined in the structure of the Portuguese syllable, which only admits one (and only one) vowel as a nucleus although more than one vowel can be part of the same syllable.

³⁶ Original: “Processo fonológico em que um segmento deixa de ser articulado em posição inicial (apócope), medial (síncope) e final (aférese) da palavra.” (LISBOA, 2007b, p. 42).

³⁷ Original: “Unidade que agrupa os sons dentro da palavra. Pode incluir um ou mais sons, como nas sílabas da palavra *a-pro-vei-tar*. Dentro da sílaba, os sons podem ocorrer no ataque da sílaba (consoante (s) à esquerda da vogal), no núcleo da sílaba (vogal ou ditongo) ou na coda da sílaba (consoante à direita da vogal). O núcleo e a coda constituem a rima da sílaba.” (LISBOA, 2007b, p. 41).

Now we turn to the modification of segments, which includes vowel reduction, assimilation and dissimilation:

- Vowel reduction: it corresponds to the natural weakening that vowels receive when occupying an atonic position in words, whether in the initial, medial or final position. In the syllabic and paused phonetic transcription [v mɨ 'ninɐ faɫ 'to aw 'tɛʃtu dɨ psikulu 'zɨv], this phenomenon occurs, as mentioned above, with the first vowel of the word “menina” (it is in a pretonic position), and the vowel phoneme of the word “teste” (it occurs in the final postonic position). The table below is found at the Camões Institute website (2008). It offers examples of terms in which such reduction occurs: in the initial position (“merecer” [deserve] / ['mrser]); initial and medial (“despegar” [detach] / ['dʃpgar]); and initial and final (“telephone” [telephone] / ['tɫfɔn]). Before discussing this process, we need to focus on:

- 1) The articulatory parameters of the Portuguese vowel segments [the position of the tongue in terms of height, posteriority, anteriority and roundness (or not) of the lips] so students may understand that the two first vowel segments of [mɨ'ninɐ] are not articulated in the same way, despite referring to the same grapheme;
- 2) The phonological inventory of the oral vowels in order to foster the understanding that there are, in European Portuguese, ten oral vowel phonemes [i, u, e, o, ɛ, ɔ, a, w, v, ɨ], as shown in the table below. Thus, it is possible to understand that the phonemes [i] and [ɨ] of the word “menina” [girl] / [mɨ'ninɐ] are different and are part of the phonological inventory of their mother tongue.

Table 3 – Phonological Inventory of the Portuguese Oral Vowels

Oral vowels					
<a>	[a] (pá)	[ɐ] (da)			
<e>	[e] (vê)	[ɛ] (pé)	[v] (meia)	[i] (emigrar)	[ɨ] (de [dɨ])
<i>	[i] (vi)	[j] (pai)			
<o>	[ɔ] (sol)	[o] (pôr)	[u] (sapo)	[w] (mágoa)	
<u>	[u] (tu)	[w] (pau)			

Source: Camões Institute (2008).

- 3) The secondary characteristic of the unvoicing of vowels so students may understand that, although the primary characteristic of vowels is voicing, they can be unvoiced in some contexts, as in the pretonic and postonic positions, both illustrated in the pronunciation of the initial and final vocal phonemes of the word [mɨ'ninɐ].

- Assimilation: it is the modification of phonemes through voicing or nasalization due to the influence of neighboring segments. In European Portuguese, the word “vamos” [let's go], if uttered alone, is pronounced ['vamɔʃ] – the final phoneme is an unvoiced alveopalatal fricative [ʃ]. However, when uttered in a sentence, such as in

the example given by the Camões Institute website (2008) “vamos jantar” [let’s have dinner], it is pronounced [ˈvəmuʒ ʒãˈtar], if pronounced slowly. What happens is that the first phoneme of the word “jantar” [dinner], which is a voiced alveopalatal fricative [ʒ], assimilates the voicing characteristic of the neighboring [j]. In the context of everyday language, [j] is fused with [ʒ]: [ˈvəmu ʒãˈtar]. Similarly, the vowel phoneme [u], which is high, front, and rounded, due to the influence of the voiced bilabial nasal phoneme [m], becomes nasalized in the word “muito” [very] [ˈmũ̃to].

The PPCGEMHS does not prescribe the content necessary to explain assimilation before the 9th grade. Therefore, teachers need to introduce it. We highlight the necessary parameters for the description of consonant sounds: the point of articulation (bilabial, labiodental, dental, alveolar, alveopalatal, palatal, velar and glottal sounds), the way or the mode of articulation (occlusive, nasal, fricative, affricate, tap, vibrant, retroflex and lateral sounds), and the state of the glottis during the production of sound (voiced or unvoiced). After that, it is possible for teachers to explain that, besides these primary characteristics, phonemes also have secondary articulations, such as the voicing assimilation of [j] and the nasalization of the phoneme [u] illustrated in the previous paragraph.

- Dissimilation: according to the RTLEMHS (LISBOA, 2007b, p. 37, our translation), dissimilation is a “Phonological process in which a phonetic segment loses one or more phonetic traits that it had in common with a neighboring segment, diverging from it.”³⁸ An example of this phenomenon can be observed in the word “lirio” [lily], which derives from the Latin word “*lilium*” and changed the second consonant phoneme from [l] to [r]. With a synchronic perspective, the document cites, as an example of dissimilation, the pronunciation, in Lisbon dialect, of the first vowel of the word “telha” [tile]. For teachers to address this process in the classroom, they have to previously teach diachronic variation, which is not assigned to the years prior to the 9th grade.

- Metathesis: it corresponds to the modification of a segment due to its transposition to a new position in the syllable. It also occurs when a syllable moves to another position in the word.

Diachronically speaking, the changes that occurred in the words *semper/sempe* and *super/sobre* from Latin to Portuguese illustrate this concept. From a synchronic perspective, the RTLEMHS cites the following examples of metathesis in European Portuguese: “The exchange of syllables in ‘*estômago*’ > ‘*estôgamo*’, or the exchange of segments in ‘*prateleira*’ > ‘*parteleira*’ in some social varieties” (LISBOA, 2007b, p. 39, our translation).³⁹ In Brazilian and European Portuguese, metathesis occurs when people with low levels of education say “cardeneta” (instead of *caderneta*) [notepad] and “*largoato*” [lizard] (instead of *lagarto*). It is essential to revisit and deepen the content

³⁸ Original: “Processo fonológico em que um segmento fonético perde um ou mais traços fonéticos que tinha em comum com um segmento vizinho, diferenciando-se dele.” (LISBOA, 2007b, p. 37).

³⁹ Original: “A troca de sílabas em ‘*estômago*’ > ‘*estôgamo*’, ou a troca de segmentos em ‘*prateleira*’ > ‘*parteleira*’ em algumas variedades sociais.” (LISBOA, 2007b, p. 39).

(language variation; phonological, lexical and syntactic plane; geographic content), the curriculum goal (to recognize language variation) and the performance indicators (identify, in oral texts, the variation in the phonological, lexical and syntactical planes, and to distinguish geographical contexts in which different varieties of Portuguese occur) assigned for the 8th grade by the PPCGEMHS, as it is shown in Table 1, in order to address metathesis.

In the RTLEMHS, we find the following definitions of the modification processes:

- “Reduction: A phonological process which consists of the weakening of an atonic vowel; thus, the first vowel of “bolo” [cake] is reduced in “bolinho” [little cake]. The same happens in the pairs “medo” [fear] / “medroso” [fearful], “mata” [woods] / “matagal” [dense forest].” (LISBOA, 2007b, p. 41, our translation)⁴⁰;

- Assimilation, is a “Phonological Process in which a phonetic segment identifies itself with a neighboring segment or approaches the other as it acquires one or two phonetic traits of that neighboring segment.” (LISBOA, 2007b, p. 36, our translation).⁴¹ However, as a universal linguistic phenomenon, this process is found not only in Portuguese from Europe, Brazil or Guinea-Bissau, but in all natural languages. This document illustrates assimilation only from a diachronic point of view, through the evolution of the word “mão” [hand] in its transition from Latin into Portuguese - “Assimilation: *manum*>*mānu*>*mão*”. We believe that they have missed a valuable opportunity to show that phonological processes happen both from the diachronic and synchronic perspective, and particularly, to show their presence in everyone’s speech.

- “Metathesis: the transposition of segments or syllables within a word” (LISBOA, 2007b, p. 39, our translation).⁴²

Final remarks

Our analysis showed that, despite the positive aspects of the RTLEMHS, some weak points were identified in the organization and composition of the entries selected in this investigation, among which we highlight the following:

- the phonological processes could have been approached from both synchronic and diachronic perspectives, as an inherent phenomena to all natural languages; instead, the document does not make such an articulation and misses, on several occasions, valuable opportunities to make further statements in this regard;

- it lacks an in-depth definition of the three phonological process of insertion and lacks examples as well;

⁴⁰ Original: “Redução: Processo Fonológico que consiste no enfraquecimento de uma vogal em posição átona; assim, a primeira vogal de “bolo” sofre uma redução em “bolinho” e o mesmo sucede nos pares “medo”/“medroso”, “mata”/“matagal.” (LISBOA, 2007b, p. 41).

⁴¹ Original: “Processo Fonológico em que um segmento fonético se identifica com um segmento vizinho, ou dele se aproxima, ao adquirir um ou dois traços fonéticos desse segmento vizinho.” (LISBOA, 2007b, p. 36).

⁴² Original: “Metátase: transposição de segmentos ou sílabas no interior de uma palavra.” (LISBOA, 2007b, p. 39).

- there are no specific entries related to the definition of syllable, such as onset, nucleus and coda, and the definition of nucleus is mistaken (see the entry “sílaba” [syllable]);

- there are no specific entries for each of the three phonological processes of suppression;

- there are terminology errors in the entry of segment suppression and in the definition of apocope and apheresis,

The present investigation also aimed to clarify each of these issues during the analysis of the curriculum goals, performance indicators and contents related to phonetics and phonology prescribed by the PPCGEMHS. We thus compared the contents assigned to the 9th grade and the entries that make up the RLTEMHS in order to verify if there were enough entries to address the contents, goals and indicators.

We conclude that the reduction in the number of entries done during the revision of the first LTEMHS was detrimental to the areas of phonetics and phonology from a quantitative perspective (essential definitions to understand phonological processes assigned to the 9th grade by the current program were excluded) and a qualitative perspective (definitions are so succinct that they become vague and create terminological misunderstandings).

In addition, we know that the PPCGEMHS innovates⁴³ when it defines curriculum goals, performance indicators and phonetic and phonological content for the final two years of the third cycle; nevertheless, it does not anticipate essential knowledge to be taught in the years before the 8th and 9th grades. For teachers to successfully implement the content prescribed in the document, they must fill a four-year gap (4th, 5th, 6th and 7th grades) of phonetics and phonology instruction in one school year, which seems somewhat unachievable.

RODRIGUES, S.; SÁ, C. O lugar da fonética/fonologia do português em documentos oficiais portugueses do Ensino Básico. *Alfa*, São Paulo, v. 63, n.1, p.189-215, 2019.

- *RESUMO: A Nomenclatura Gramatical em vigor em Portugal até 2003 datava de 1967. Em 2007, instituiu-se uma nova terminologia linguística, por meio da publicação do Dicionário Terminológico (DT). Tal dicionário resultou da revisão da Terminologia Linguística para os Ensinos Básico e Secundário, analisada neste estudo. Em 2015, outro importante documento entrou em vigor: o Programa e Metas Curriculares de Português para o Ensino Básico e Secundário (PMCPEB). Considerando a importância da Fonética e da Fonologia para a reflexão sobre a língua e para a ampliação dos saberes linguísticos dos alunos, e levando em conta o fato de, tradicionalmente, essas áreas fazerem-se pouco presentes no currículo escolar português (VELOSO, 2006), os objetivos desta pesquisa foram: analisar o espaço ocupado*

⁴³ In relation to the previous document: Curriculum goals for Basic Education (BUESCU *et al.*, 2012).

pela Fonética e pela Fonologia no PMCPEB, no 3º ciclo do Ensino Básico⁴⁴ e analisar se os verbetes da revisão da TLEBS contemplam os conteúdos desses campos previstos pelo PMCPEB. O estudo fundamentou-se em Cagliari (2009), Veloso (2006), Veloso e Rodrigues (2002) e evidenciou que essas disciplinas têm escasso lugar no PMCPEB; que os verbetes constantes da revisão da TLEBS não abrangem todos os conteúdos previstos pelo PMCPEB para essas áreas e que há erros terminológicos e imprecisão teórica na composição dos verbetes investigados.

- *PALAVRAS-CHAVE: Fonética. Fonologia. Ensino de Língua Portuguesa. Currículo. Ensino Básico.*

REFERENCES

BUESCU, H. C. *et al.* **Programa e metas curriculares de Português do Ensino Básico**. Lisboa: Ministério da Educação e Ciência, 2015.

BUESCU, H. C. *et al.* **Metas curriculares de Português – Ensino Básico, 1º, 2º e 3º Ciclos**. Lisboa: Ministério da Educação e Ciência, 2012.

CAGLIARI, L. C. **Alfabetização e linguística**. 11.ed. São Paulo: Scipione, 2009.

CÂMARA JUNIOR, J. M. **Estrutura da Língua Portuguesa**. 44.ed. Petrópolis: Vozes, 2009.

CAMÕES INSTITUTE. **A pronúncia do português europeu**. [Lisboa]: Instituto Camões, 2008. Available in: http://cvc.instituto-camoes.pt/cpp/ acessibilidade/capitulo6_3.html. Access on: 20 mar. 2019.

LISBOA. Ministry of Education. **Revisão da terminologia linguística para os ensinos básico e secundário**. Lisboa: Ministério da Educação, 2008. Disponível em: <http://princípio.org/revisão-da-terminologia-linguística-para-os-ensinos-bsico-e-secu.html>. Acesso em: 23 mar. 2019.

LISBOA. Ministry of Education. Portaria nº 476/2007. **Diário da República**, Lisboa, n.º 76/2007, Série I de 2007-04-18, p. 2467/2468, 2007a.

LISBOA. Ministry of Education. **Revisão da Terminologia Linguística para os Ensinos Básico e Secundário**. Direcção Geral de Inovação e de Desenvolvimento Curricular: Lisboa, 2007b.

LISBOA. Ministry of Education. Portaria nº 1488/2004. **Diário da República**, Lisboa, n.º 300/2004, Série I de 2004-12-24, p. 7307/7315, 2004.

⁴⁴ The 3rd cycle of Basic Portuguese Education is equivalent, in Brazil, to the 7th, 8th and 9th grade of Elementary School Final Years.

LISBOA. Ministry of Education. **Dicionário Terminológico para consulta em linha**. Lisboa: Ministério da Educação e Ciência, [200-]. Available in: <http://dt.dge.mec.pt/>. Access on: 19 mar. 2019.

RODRIGUES, S. V. Fonética e fonologia no ensino da Língua Materna: modos de operacionalização. *In*: ENCONTRO SOBRE TERMINOLOGIA LINGUÍSTICA: DAS TEORIAS ÀS PRÁTICAS, 2005, Porto. **Anais** [...]. Porto: Faculdade de Letras da Universidade do Porto, 2005. p. 1-33. Available in: http://web.letras.up.pt/srodrigues/pdfs/term_ling_actas.pdf. Access on: 20 maio 2014.

VELOSO, J. A fonética e a fonologia na nova terminologia linguística para os ensinos básico e secundário. *In*: DUARTE, I.; FIGUEIREDO, O. (org.). **Terminologia linguística**: das teorias às práticas. Porto: Faculdade de Letras da Universidade do Porto, 2006. p. 115-127.

VELOSO, J.; RODRIGUES, A. S. A presença da fonética e da fonologia no ensino do português (ensino básico e secundário): algumas considerações preliminares. *In*: ENCONTRO COMEMORATIVO DOS 25 ANOS DO CENTRO DE LINGUÍSTICA DA UNIVERSIDADE DO PORTO, 2002, Porto. DUARTE, I. M. *et al.* **Anais** [...]. Porto: C.L.U.P., 2002. v.1, p. 231-246. Available in: <https://bibliotecadigital.ipb.pt/handle/10198/3314>. Access on: 20 ago. 2017.

Recebido em 09 de janeiro de 2018

Aprovado em 17 de junho de 2018

