

## POSSIBLE IMPLICATIONS OF THE SLM AND SLM-R FOR BILINGUAL EDUCATION

### POSSÍVEIS IMPLICAÇÕES DO SLM E SLM-R PARA A EDUCAÇÃO BILÍNGUE

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**ABSTRACT:** Given the growing interest in pronunciation and second language (L2) acquisition, it is essential to align how L2 sounds are addressed in classroom practice. This article examines how the postulates and hypotheses of the Speech Learning Model (SLM; Flege, 1995) can inspire pedagogical practices with very young children in bilingual education contexts. We discuss how Flege's concepts can help teachers mediate L2 sound acquisition by guiding learners' formation of L2 phonetic categories through effective practices. In addition, we highlight the importance of both the quantity and quality of phonetic input for successful L2 sound acquisition. Finally, we explore the potential and implications of the interconnection between second language acquisition theories and pedagogical practices, for the benefit of teachers and learners, in order to achieve more successful L2 sound acquisition from early childhood.

**KEYWORDS:** L2 sound acquisition; phonetic input; bilingual education; Speech Learning Model

**RESUMO:** *Dado o crescente interesse pela pronúncia e pela aquisição de segunda língua (L2), é fundamental alinhar a forma como o trabalho com os sons da L2 é abordado em sala de aula. Neste artigo, examinamos como os postulados e as hipóteses do Speech Learning Model (SLM) (FLEGE, 1995) podem inspirar práticas pedagógicas com crianças muito pequenas em contextos de educação bilíngue. Discutimos como os conceitos de Flege podem ajudar professores a mediar a aquisição dos sons da L2 por meio de práticas eficazes que orientem a formação das categorias fonéticas da L2 pelos alunos. Além disso, destacamos a importância tanto da quantidade quanto da qualidade do input fonético para uma aquisição bem-sucedida dos sons da L2. Por fim, exploramos as potencialidades e os desdobramentos da interconexão entre teorias da aquisição de segunda língua e práticas pedagógicas, em benefício de professores e alunos, de modo a alcançar uma aquisição mais bem-sucedida dos sons da L2 desde a primeira infância.*

**PALAVRAS-CHAVE:** *Aquisição dos sons da L2; input fonético; educação bilíngue; Modelo de Aprendizagem da Fala*

## 1. Introduction

Research on L2 sound acquisition has gained increasing interest in recent decades (Thomson & Derwing, 2015). Technological advances have enabled more detailed studies, enriching the field. Discoveries in brain circuits and language processing have brought new evidence about how humans acquire language and perceive new sounds (DEHAENE, 2021; KUHL, 1991, 2011; FLEGE & BOHN, 2021). Factors such as attention, engagement (DEHAENE, 2021), age (KUHL, 2011), and input (FLEGE, 1995) have shaped our understanding of how L2 sounds are acquired.

Studies suggesting that input is the primary factor in sound acquisition have shifted the research perspective regarding L2 sounds. This has led to a deeper understanding of how the quality and quantity of input matter (FLEGE, 1995; FLEGE, 2009; MOYER, 2009). This new paradigm, combined with technological advances, has enabled phonetics research to generate more detailed data, providing valuable insights into enhancing speech perception and production techniques.

Flege's research was pivotal not only for putting the role of phonetic input in evidence but also for investigating L2 sound acquisition. His thorough investigation of speech sounds across various speakers led to the creation of the Speech Learning Model (SLM) (1995), which includes postulates and hypotheses on how L2 speech sounds are acquired. The SLM (1995) was recently updated, resulting in the revised Speech Learning Model (SLM-r) (FLEGE & BOHN, 2021), with a few considerations and minimal modifications outlined in section 2.2 of this paper. At the same time, linguistic studies have begun to recognize the significance of closely examining pronunciation and L2 speech perception in schools (LEVIS, 2016, 2017; MUNRO & DERWING, 2015; O'BRIEN et al., 2018). Establishing this connection remains a challenging endeavour.

Although Flege's studies do not account for speakers in classroom settings or address pedagogical implications, the SLM offers robust information that can benefit school practices. This paper explores how the SLM's postulates and hypotheses can help teachers scaffold L2 sound acquisition with very young learners in bilingual education contexts. It proposes reading the SLM through pedagogical lenses to suggest how Flege's (1995) assumptions can inform pedagogical practices that are efficient at fostering L2 speech perception and the formation of phonetic categories.

This article aims to provide more details and ideas on how teachers can mediate the acquisition of L2 sounds, drawing on the SLM and SLM-r. By exploring Flege's postulates and hypotheses, we aim to gain insights into how to integrate L2 sound acquisition with classroom practices to benefit young learners in bilingual school contexts. Examples comparing English and Brazilian Portuguese (BP) sounds are provided to support our claims.

## **2. The SLM and SLM-r constructs as subsidies to enrich classroom practices in bilingual education**

### **2.1 Speech acquisition and bilingual education**

Due to globalization and technological advances (VIAN, WEISSHEIMER, & MARCELINO, 2013), the bilingual education context has grown rapidly. With that, arises the need for classroom practices that encompass both pedagogical and language-related issues. Research on bilingual education has indeed emerged and contributed to the area (GARCIA, 2009; GENESEE, 1994; MEGALE, 2012). On the other hand, research on second language acquisition and sound acquisition has faced challenges in reaching classroom practices (LEVIS, 2016, 2017; MUNRO & DERWING, 2015).

Among the studies in L2 sound acquisition, Flege's contributions are pivotal. His studies highlighted the field and enriched the area with relevant empirical data. Flege's findings changed the perspective on how L2 sounds are acquired with his proposal of the SLM (1995), and, more recently, the SLM-r (FLEGE & BOHN, 2021).

Although Flege's research did not account for classroom settings, his studies can be beneficial if brought to this context. This integration between pedagogy and linguistics, as discussed in renowned journals (LEVIS, 2016; MUNRO & DERWING, 2015), can positively impact how teachers in bilingual education contexts approach L2 sound acquisition in their daily practices. Despite their crucial nature, language teaching theories have given Flege's studies little attention due to a lack of evidence regarding students and classroom contexts. Choosing not to focus on students and data collection in school environments left aside Flege's vast theory off the pedagogical radar. Although the context of Flege's empirical collections is diverse, his theory contains assumptions and principles relevant to pedagogical practice.

Piske (2007) has highlighted some implications of Flege's work for the foreign language classroom. Piske (2007) claims that teachers should remember that the earlier the exposure to L2 sounds begins, the better the acquisition will be. However, teachers should not expect all children to produce L2 sounds accurately simply because they are exposed to them, as other factors should be considered. Factors such as the quality and quantity of input and each speaker's personal specificities strongly impact the process of acquiring sounds. Furthermore, using the L2 is fundamental for producing intelligible and accurate sounds, i.e., the more the speaker uses the L2, the better for their development.

Piske (2007) also notes that phonetic training is an important part of Flege's studies and is worth consideration by teachers. Although phonetic training receives little attention in language studies (PISKE et al., 2001), it has positive results concerning accurate perception and production of L2 sounds (MOYER, 1999). Regarding phonetic training, we agree with Piske's consideration of the importance and relevance for a better L2 sound perception. With young learners, however, calling attention to acoustic cues can be approached differently, with a more engaging and playful approach (BARROS; MADUREIRA, 2025).

That said, we next examine the possible implications of the main concepts from Flege's (1995) research for the early childhood classroom in a bilingual context. It aims to uncover convergences between Flege's theory and pedagogical practices and to help teachers understand the fundamental elements to consider when working with L2 sounds. To this end, it is necessary to revisit the postulates and hypotheses of SLM (1995), which serve as a basis for studies into the acquisition of L2 sounds.

2.2 Classroom practices in bilingual education contexts based on the SLM postulates and hypotheses

In this section, we will explore how the SLM (FLEGE, 1995) and SLM-r (FLEGE & BOHN, 2021) constructs can contribute to pedagogical strategies in the classroom. We will examine the postulates and hypotheses from the perspective of a bilingual teaching context and how they can help teachers guide their practices.

The table below presents the SLM's (FLEGE, 1995) original postulates and hypotheses. The model's revised version, the SLM-r (FLEGE; BOHN, 2021) maintains the core postulates and hypotheses, with a slight shift of emphasis on individual differences to a more dynamic acquisition process, which involves L1 and L2 interactions throughout time. After introducing the postulates and hypotheses of the SLM, the modifications to the SLM-r are outlined.

Table I: The Speech Learning Model Postulates and Hypotheses

Postulates	
P1	The mechanisms and processes used in learning the L1 sound system, including category formation, remain intact over the life span and can be applied to L2 learning;
P2	Language-specific aspects of speech sounds are specified in long-term memory representations called phonetic categories;
P3	Phonetic categories established in childhood for L1 sounds evolve over the lifespan to reflect the properties of all L1 or L2 phones identified as a realization of each category;
P4	Bilinguals strive to maintain contrast between L1 and L2 phonetic categories, which exist in a common phonological space;
Hypotheses	
H1	Sounds in the L1 and L2 are related perceptually to one another at a position-sensitive allophonic level, rather than at a more abstract phonemic level;
H2	A new phonetic category can be established for an L2 sound that differs phonetically from the closest L1 sound if bilinguals discern

	at least some of the phonetic differences between the L1 and L2 sounds;
H3	The greater the perceived phonetic dissimilarity between an L2 sound and the closest L1 sound, the more likely it is that phonetic differences between the sounds will be discerned;
H4	The likelihood of phonetic differences between L1 and L2 sounds, and between L2 sounds that are noncontrastive in the L1 being discerned decreases as age of learning (AOL) increases;
H5	Category formation for an L2 sound may be blocked by the mechanism of equivalence classification. When this happens, a single phonetic category will be used to process perceptually linked L1 and L2 sounds (diaphones). Eventually, the diaphones will resemble one another in production;
H6	The phonetic category established for L2 sounds by a bilingual may differ from a monolingual's if: 1) the bilingual's category is "deflected" away from an L1 category to maintain phonetic contrast between categories in a common L1-L2 phonological space; or 2) the bilingual's representation is based on different features, or feature weights, than a monolingual's;
H7	The production of a sound eventually corresponds to the properties represented in its phonetic category representation.

**Fonte:** (FLEGE, 1995)

The first postulate suggests that the mechanisms responsible for the acquisition of L1 sounds remain intact throughout life and can be applied to the acquisition of L2 sounds. This concept is maintained in the SLM-r framework (FLEGE; BOHN, 2021) and bears importance when we relate Flege's findings to the pedagogical context of children in early childhood education. This is because the notion that phonetic categories can be formed regardless of age brings positive points to the classroom in two perspectives: 1. Every child can form new phonetic categories depending on the input received. Thus, teachers must pay attention to what they offer their students phonetically. And 2. Teachers can refine their phonetic perception, form new categories, or even revert assimilated L2 sounds to L1 sounds. This shows that teachers' phonetic knowledge in bilingual schools is fundamental to achieving more accurate production and to generating an environment with richer phonetic input for children.

Schools that provide opportunities for teachers to improve their L2 knowledge enhance children's language experience. Offering consistent professional development in the area, such as courses, lectures, and regular guidance, creates an environment where teachers reflect on their L2 skills. This is likely to help ensure that children have access to more accurate L2 acoustic cues.

The second postulate concerns phonetic categories, which are aspects of oral language stored in long-term memory. Phonetic categories are tokens of

each sound in a language's inventory and are responsible for decoding the utterances of that language. For a speaker to understand the L2, they first need to identify the L2 sounds and develop a phonetic repertoire so that these sounds make sense and form words. This repertoire is the so-called phonetic inventory, composed of various phonetic categories.

The implications of this postulate for bilingual classroom teachers stem from the need to consider phonetic category formation when engaging with very young learners. Understanding that the child is expected to form new phonetic categories for the L2 sounds helps teachers mediate this formation in a playful way (BARROS; MADUREIRA, 2025). The formation of these new phonetic categories depends on the phonetic input received. The child needs an environment that provides high-quality acoustic cues. For this to happen, teachers need to have knowledge of phonetics and a rich L2 environment.

The third postulate explains that acquired phonetic categories change throughout life and continue to be influenced by the L1 and L2. In schools, this postulate holds that accurate phonetic input and the use of the L2 must be consistent and continuous throughout the school years to provide rich phonetic experiences for speakers.

For example, suppose a child has access to accurate acoustic cues in the first two years of school but lacks L2-quality phonetic input thereafter. This child will likely have their L2 categories move back to the closest L1 counterpart. In a bilingual school, it is necessary to ensure that contact with the L2 is continuous, high-quality, and constant so that children do not lose what has been previously established.

Flege (1995) suggests that phonetic categories coexist in a common space in the fourth postulate. The SLM-r refers to this as phonetic space, updating its terms to align with Flege's theories at the allophonic level. This construct is fundamental for teachers to consider, as it results in L1 and L2 sound interplay. Understanding that L1 influences the formation of phonetic categories in L2 enables teachers to focus on speakers' difficulties when encountering both phonetic inventories.

Taking Brazilian speakers acquiring English as an L2 as an example, their BP sounds will, to some extent, influence the formation of English categories. There are distinctions between sounds in English that do not occur in Brazilian Portuguese. These distinctions present challenges for Brazilian speakers, often leading to faulty perception and production of the L2 sounds. Given the influence of L1 sounds, it is essential to understand the phonetic inventory of both languages to identify potential difficulties, such as sounds that are likely to be assimilated. Teachers can focus on these sounds and suggest more exposure and activities that emphasize them. Considering the phonetic challenges of one language in relation to the other can enhance phonetic input and provide more accurate acoustic cues. This suggests the need for specific strategies based on comparisons between L1 and L2 sounds.

When we consider bilingual schools in Brazil, where the L1 of most children is BP, we often see materials on phonemic awareness designed for the literacy process of children whose L1 is English. Although much of the information is convergent across these materials, the context of children speaking another L1 and acquiring English as an L2 requires specific attention when the two

inventories overlap. In materials designed only for monolingual children, assimilation of L2 sounds to L1 sounds is not considered, and intentional work that focuses more on the difficulties of similar L1 and L2 sounds is likely lacking. Therefore, bilingual school teachers need to reflect on these influences and adapt or devise new strategies as required.

Regarding the SLM hypotheses, the first explores the relationship between L1 and L2 sounds at the allophonic rather than the phonemic level. When Flege (1995) and Flege and Bohn (2021) state that phonetic category formation and assimilation occur at the allophonic level, they refer to the realization of sounds, not their phonological abstraction. When we plan mediations, we must consider that although some phonemes are the same in both languages, their allophones can vary widely and pose difficulties for a learner. Therefore, teachers must reflect on L1-L2 inventories at an allophonic level.

Let us take the English plosive /p/ and the BP as an example. In both languages, the sound of /p/ is represented by the same phoneme. However, its allophones differ, which makes perception and production difficult for Brazilian speakers. In BP, the phoneme /p/ is unaspirated. In contrast, the sound of /p/ in English has several realizations, i.e., allophones, namely /p<sup>h</sup>/ - aspirated as in the word "pot," /p/ - unaspirated as in the word "sport," and /p'/ - unreleased as in the word "top." Analysing the L1-L2 inventories only at the phonological level does not meet the specific need to work on the perception of sounds that are challenging due to their similarities.

The second hypothesis holds that a new phonetic category can be created for an L2 sound that differs from its closest L1 counterpart when the speaker perceives phonetic differences between the L1 and L2 sounds. In other words, the formation of new phonetic categories - and therefore the acquisition of new sounds - necessarily occurs through the accurate perception of that sound. Some factors can hinder this process, such as age and L1 influence. This hypothesis affects the role of the teacher, as it shows that working with perception is fundamental for children in a bilingual context, thereby avoiding or reversing assimilation (FLEGE, 1988).

The assimilation process makes learners struggle to perceive subtle phonetic differences between some sounds in both inventories. In a Brazilian context, for example, the vowels /æ/ and /ɛ/ are often perceived as /ɛ/, as /æ/ is not part of the BP phonetic inventory. As explained in the second hypothesis, this faulty perception blocks the formation of a new phonetic category. Teachers can help reverse or prevent assimilation by intentionally working with sounds from an early age through meaningful, playful interactions (BARROS; MADUREIRA, 2025).

The third hypothesis also concerns the perception of L2 sounds. The greater the perceived phonetic dissimilarity between an L2 sound and the closest L1 sound, the greater the chance of these phonetic differences being discerned. This hypothesis shows that similar sounds are more difficult to perceive, while divergent sounds are more easily distinguished (FLEGE, 1995). This notion was addressed by Sacchi (2018) in an empirical study with Brazilian learners, which showed that the contrasts /ɛ-æ/ were less discernible, followed by /i-I/, /u-ʊ/, and /ɑ-ɔ/. The vowel /ʌ/, as it does not occur in BP, was little confused.

Knowing that L2 sounds closer to L1 sounds are more difficult to distinguish also sheds light on possible pedagogical practices. Phonetic focus can be more directed towards the sounds that Brazilian learners find more challenging to discern. According to the third hypothesis, these contrasts should be highlighted pedagogically when choosing the lexicon for games, stories, and songs, for example. When discussing phonetics with very young children, we reiterate that we refer to phonetic input offered naturally and playfully without explicitly highlighting the difference between sounds (BARROS; MADUREIRA, 2025).

By way of example, with the third hypothesis in mind, when we choose some words to create a story, we can focus, for instance, on the English sounds /æ, ɪ, ʊ, t, θ/, which are similar to some BP sounds and cause more difficulty in perception. The same thing can happen with the choice of songs and alliteration books.

The fourth hypothesis concerns the perception of age-related phonetic differences. Although Flege (1995) and Flege and Bohn (2021) stress that input is the primary factor in acquiring L2 sounds, the speaker's age is also relevant. In this hypothesis, Flege (1995) suggests that the likelihood of discerning phonetic differences between L2 and L1 sounds decreases with age.

This hypothesis aligns with other studies (DEHAENE, 2021; KUHL, 1991; MONTESSORI, 1967), which show that perceiving L2 sounds - especially those similar to L1 sounds - becomes more challenging as speakers age. This notion is crucial when we approach a bilingual school context with children in early childhood education who are still sensitive to sounds and have acute neural plasticity (DEHAENE, 2021). If there is evidence that earlier is better for L2 sound acquisition, why miss the opportunity to provide a phonetically rich environment for a more natural and effective process?

In the Brazilian bilingual school context, it is common not to base the curriculum on linguistic theories or offer teachers linguistic development. Teachers usually do not come well prepared from universities, as phonetics and second language acquisition are not part of the Education degree programmes. In this scenario, many teachers are unaware of L2 phonetic details and may lack sufficient L2 input in both quality and quantity. Also, many teachers report using BP in more elaborate and complex conversations with learners, in school adaptation with younger children, or in sensitive moments, such as conflicts. Using BP becomes a habit and can hinder the acquisition process of English.

Firstly, children should not be underestimated. Their neural activity is more active and ready for learning than an adult's (DEHAENE, 2021). Therefore, with adequate input, the L2 acquisition happens naturally and spontaneously. A second point is the importance of offering both quality and quantity input. Opting to use L1 deprives children of more contact with the target language and of the opportunity to develop to their full potential. As mentioned in the fourth hypothesis, we should remember that acquiring L2 sounds is more effortless and smoother the younger the child is.

The fifth SLM hypothesis concerns the formation of phonetic categories in the L2. According to Flege (1995) and, more recently, Flege and Bohn (2021), the equivalence classification mechanism can block the creation of new phonetic categories for L2 sounds. This process, called assimilation, prevents a new



category from forming because the L2 sound is associated with a perceptually equivalent sound in the L1. In other words, when an L2 sound is phonetically similar to a sound already in the L1 inventory, this L2 sound may join the same phonetic category as the similar L1 sound. Assimilation prevents the formation of a new phonetic category for that L2 sound, resulting in inaccurate perception and production. Therefore, the speaker will produce both sounds very similarly.

This notion influences classroom practices by providing scientific evidence explaining why children often confuse certain L1-L2 sounds. It is common for some English sounds to be perceived and produced as equivalent to a BP sound. We frequently observe speakers producing /pɛn/ when referring to the words "pen" (/pɛn/) and "pan" (/pæn/). This process also occurs on an allophonic level, for example, when a child says [ˈtɛɪ.bəl] without the aspiration of /t/ instead of [ˈtʰɛɪ.bəl]. One option for reversing this assimilation process, or even preventing it, is for teachers to work with sounds consistently and intentionally (FLEGE, 1988; BARROS; MADUREIRA, 2025) through age-appropriate games. Examples of games include "I spy", "Scavenger Hunt", and "Up and Down" (BARROS; MADUREIRA, 2025), which are engaging and prioritize the work with acoustic cues.

The sixth hypothesis concerns the difference in the phonetic categories of the L2 established by bilingual<sup>1</sup> speakers. Flege (1995) states that the categories formed by a bilingual may be different from those of a monolingual if the speaker's phonetic category deviates from an L1 category to maintain the L1-L2 contrast, and if the bilingual's representation of the L2 sound is based on characteristics that are different from those of the monolingual. This hypothesis refers to a natural process in bilingual speakers, even when there is quality and quantity of phonetic input. For example, some studies show these contrasts in VOT among bilingual and monolingual speakers (ROCCA & MARCELINO, 1999).

The seventh hypothesis suggests that the production of an L2 sound generally corresponds to the properties of the phonetic category of that sound. This hypothesis connects with theories on the link between the perception and production of sounds (FLEGE & BOHN, 2021; ROCHET, 1995; THORIN et al., 2018). Flege (1995) proposes that the characteristics of a sound in its phonetic category tend to shape the production of the same sound. That is, if the phonetic categories are not created accurately, respecting the phonetic characteristics of an L2 sound, the production of this sound will also be affected.

In practice, this hypothesis can be observed when a child learning the L2 assimilates the English sound /ɪ/ to the sound /i/, which is present in the phonetic inventory of BP speakers' L1. This child will not differentiate the words "ship" and "sheep", for instance, and will hear "sheep" for both the animal /ʃɪp/ and the means of transportation /ʃɪp/. In this case, a new phonetic category was not formed for the sound /ɪ/, so both sounds are represented and perceived as the same by the speaker. This representation also impacts production, and the speaker is likely to produce the /ɪ/ sound with the characteristics of the /i/ sound. This production can negatively impact the speaker's intelligibility and comprehensibility (MUNRO & DERWING, 2015).

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<sup>1</sup> Here understood as both simultaneous and sequential bilinguals

### **3. Potentialities and developments**

Based on what has been explored, some initiatives may contribute to more successful L2 sound acquisition in bilingual classrooms. Teachers need phonetic knowledge to provide students with rich phonetic input. Several studies have long considered this matter crucial, but schools seem to be lagging behind (ABERCROMBIE, 1949; BARROS & MADUREIRA, 2025; DERWING & MUNRO, 2005; LLISTERI, 2003).

In Brazil, university pedagogy courses do not address linguistic issues such as language acquisition and phonetics. Some universities offer courses on bilingual education that focus solely on the educational aspect of bilingualism, neglecting the acquisition processes involved. This situation results in teachers, particularly in early childhood education, who lack awareness of how languages are learned from a linguistic perspective and how sounds are organized in both L1 and L2 inventories. To address this scenario, bilingual schools should provide the support needed for their teachers to develop.

Schools can prepare teachers to support children's L2 development by integrating theoretical and practical aspects of phonetics and L2 sound acquisition into their professional development programs. Making these topics more accessible to teachers is likely to enhance their skills and increase their awareness. Teachers who are comfortable with the phonetic characteristics of L1 and L2 sounds can provide accurate acoustic cues to children. Additionally, teachers who understand the processes involved in L2 sound acquisition are better prepared to improve classroom practices aimed at language development.

Another initiative that contributes to successful L2 sound acquisition is creating a rich L2 environment in schools. Flege (1995) stated that more L2 phonetic input leads to better outcomes. Therefore, children who are exposed to diverse and continuous L2 sounds have greater opportunities to form new phonetic categories and expand their inventory. A rich phonetic environment provides children with more acoustic cues necessary for sound perception and production. When articulated accurately, these cues can hinder or reverse the assimilation process (FLEGE, 1988).

Finally, one way to connect theory to practice is through games, playful activities, storytelling moments, and songs. These tools are already present in classrooms with very young learners and are part of most schools' curricula. Using these strategies, with a focus on the L2, is a way to create rich experiences, with English sounds engagingly drawing children's attention to acoustic cues.

Storytelling moments provide excellent opportunities for children to engage with various L2 sounds and explore them through rhymes and alliteration. Studies indicate that stories assist children in developing their L2 skills, including grammar, vocabulary, and pronunciation, while offering moments of attention and active participation and fostering greater language awareness (AJIBADE & NDUBUBA, 2008; ATTA-ALLA, 2012; BARROS, COUTINHO, & MADUREIRA, 2024; MATTHEOUDAKIS, DVORAKOVA, & LÁNG, 2008; WAJNRYB, 2003; WRIGHT, 2007).

Songs and nursery rhymes have also been proven to enhance children's L2 development, including their vocabulary expansion, perception of L2 sounds,

and writing skills (BRYANT et al., 1989; KENNEY, 2005; MOHANTY & HEJMADI, 1992; MULLEN, 2017; POURKALHOR & TAVAKOLI, 2017). Due to their highly memorable aspect, songs allow students to produce language, thus exercising their articulation and adjusting movements to produce L2 sounds.

Ultimately, teachers can help children acquire L2 sounds by providing playful activities and games that emphasize the perception of acoustic cues. Engaging in games designed to enhance children's perception of complex L1-L2 contrasts will likely improve their perceptual skills and reverse the assimilated sounds (BARROS; MADUREIRA, 2025). With adequate phonetic knowledge, teachers can modify and even design games that provide children with high-quality L2 input (see BARROS; MADUREIRA, 2025, for examples of games and the progression of challenging sounds).

There are multiple ways to effectively integrate theories of L2 sound acquisition into classroom practice. Further research examining the relationship between phonetics and pedagogy would benefit teachers, learners, and researchers alike. Teachers would gain greater access to empirical evidence to inform instructional decisions, while researchers would be guided by pedagogically relevant questions and classroom-based outcomes (Levis, 2016)

## Conclusion

This paper argues that Flege's theoretical constructs and research findings can inspire the development of more effective strategies to support L2 sound acquisition in bilingual contexts. It claims that both the SLM (FLEGE, 1995) and the SLM-r (FLEGE and BOHN, 2021) postulates and hypotheses can be discussed from a pedagogical perspective and considered in teaching practices for L2 sound acquisition. By drawing on the theoretical construct, we can implement insights from Flege's research to introduce teaching practices that incorporate this knowledge in the classroom. The relationship between speech acquisition theories and practical teaching strategies offers considerable potential to enhance L2 pronunciation outcomes from an early age in bilingual classroom contexts. Ultimately, this paper explores the potentialities and developments of the interconnectedness of L2 acquisition theories and pedagogical practices for the benefit of teachers and students in achieving more successful L2 sound acquisition from an early age.

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