Songs/Poems as a tool to teach English pronunciation to Spanish/Catalan Preschoolers

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Abstract. In response to the notion that learning foreign languages, particularly English, is of the utmost importance (The European Education Area: A Shared Holistic Approach, 2021), learning English as a foreign language (EFL) has become a priority in schools. Many Spanish/Catalan preschools in Catalonia (Spain) include EFL as part of their curriculum starting at the age of three. However, English is not compulsory until Primary school, resulting in no official guidelines for teaching foreign languages at a preschool level. This challenges English language instructors, both native and non-native (Couper, 2017), to meet learner needs in all language skills, including pronunciation. In fact, pronunciation teaching has often been neglected by EFL teachers for several reasons, such as motivation, resources, and facilities (Gilakjani & Sabouri, 2016) or lack of training in pronunciation instruction (Tran & Nguyen, 2020). In light of these issues and following current pronunciation teaching trends, this thesis aimed to study and compare teacher-made songs and poems as tools for teaching specific English vowel sounds (/ɪ/- /iː/ and /æ/ - /ʌ/) to Spanish/Catalan preschoolers aged 5-6. Each Song/Poem targeted a set of minimal pair words, which only differed in one sound or phoneme. This approach enabled students to focus on and discriminate the target vowel sounds. Following Pennington's (2021) recommendations, pronunciation sessions began with instruction through Phonological Awareness (PA) activities to practice the foreign language's sounds explicitly before introducing the songs or poems as a communicative task. The study divided Spanish/Catalan preschoolers (N=41) into two experimental groups, a Song Group (N=21), and a Poem Group (N=20), to measure native speaker perceived **pronunciation accuracy** and student and teacher perception of **enjoyment** in two pronunciation-focused sessions. Results showed that native speaker raters perceived improvement in pronunciation accuracy when children were exposed to target vowel sounds through Songs. A major finding in this study was that using Poems also increased perceived accuracy. However, participants in the Song Group outperformed the Poem Group. As for student perception of pronunciation session enjoyment, using Songs in pronunciation teaching contributed to learner enjoyment, but there was no significant difference between groups. Nevertheless, teacher perception of enjoyment indicated higher "engagement" levels in the Song Group than in the Poem Group, indicating that students in the Song Group blocked out most other distractions and focused attention on the activities.

Key Words. Pronunciation, Enjoyment, Songs, Poems, EFL, Learning tools, Minimal pair vowel sounds.

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List of abbreviations

CPH = Critical Period Hypothesis
EFL = English as a Foreign Language
EEE = Early Childhood Education
L1 = First Language
L2 = Second Language
L3 = Third Language
L4 = Fourth Language
PA = Phonological Awareness
PELI = Preschool Early Literacy Indicators
SLA = Second Language Acquisition
SSIMH = Song Stuck in My Head phenomenon
TPR = Total Physical Response

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1. Introduction

1.1 Rationale

In response to the notion that learning foreign languages, particularly English, is of the utmost importance (The European Education Area: A Shared Holistic Approach, 2021), learning English as a foreign language (EFL) has become a priority in schools. This proves beneficial as bilingual and multilingual students have shown better results in task-switching activities, have a higher attention span, and adjust to environmental changes (Marian, 2012). Additionally, it enhances additional language learning (Moreno, 2020).

Many Spanish/Catalan preschools in Catalonia (Spain) include EFL as part of their curriculum in I3, when students are 3-4 years old. However, English is not compulsory until Primary school, resulting in no official guidelines for teaching foreign languages at a preschool level. This challenges English language instructors, both native and non-native (Couper, 2017), to meet learner needs in all language skills, including pronunciation. In fact, pronunciation teaching has often been neglected by EFL teachers due to several reasons, such as motivation, resources, and facilities (Gilakjani & Sabouri, 2016) or lack of training in pronunciation instruction (Tran & Nguyen, 2020).

Levis (2018) points out that it is crucial to determine which errors teachers should target to improve students' intelligibility, meaning the ability of the listener to decode words the speaker pronounces in a foreign language (Munro & Derwing, 1995). Therefore, English teachers should be aware of Spanish/Catalan EFL students' difficulty pronouncing certain vowels in the English sound system. In addition, they should analyse the cause of learner mistakes to prevent unfavourable phonological fossilisation (Rahal, 2018) and create pronunciation activities that respond to specific learner group needs and performance (Pennington, 2021).

There is still some debate amongst researchers about whether age of onset is a determining factor for students' pronunciation. It has been shown that children are more sensitive to a new language's sounds and rhythms (Pinter, 2017) and that it is exceptional for learners above ten to have the pronunciation ability of a near-native or native speaker (Moyer, 2014). However, Muñoz and Singleton (2011) suggest maturational constraints may be tied to the amount and quality of input and learner motivation. Furthermore, some research has shown that nativelikeness does not impede understanding if the utterance is intelligible (Levis, 2018).

One consideration about the age of onset is that most preschool children are preliterate. When they begin reading, "children often use a phoneme-to-grapheme or sounding out strategy when they write" (Gorman & Kester, 2001, p. 13), therefore the opportunity to teach the English phonological system without the influence of the L1's pronunciation is limited to this age group. This idea is further confirmed by Darcy et al. (2015), who state that a complete understanding of the L2 phonological system effectively limits the influence of the L1 knowledge during language processing, minimising the risk of pronunciation errors and producing more intelligible speech in the foreign language. For this reason, researchers such as Lourenço and Andrade (2014) recommend including Phonological Awareness (PA) activities in the pre-Primary classroom to enhance foreign language learning.

Following Pennington's (2021) recommendations, pronunciation sessions should begin with explicit instruction and controlled practice on the target segmental (consonant and vowel sounds or phonemes) or suprasegmental (stress, rhythm, and intonation) features of the language. Including PA in English lessons could be a way to practice the foreign language's sounds explicitly before moving on to a communicative task. The Spanish/Catalan foreign languages curriculum for Primary school briefly recommends singing songs or reciting poetry as communicative tasks to practice pronunciation (Departament d'Ensenyament, 2015, p. 93) without further resources or which specific aspects to work on for Spanish/Catalan students.

Research has shown many benefits to using songs in the EFL classroom. In fact, Fonseca-Mora et al. (2011) state that "speech melodies are the natural intersection between music and language" (p.2). According to Gardner's multiple intelligences hypothesis, music and language learning can prove useful to many learners, as he suggests that students can develop all types of intelligences, including verbal and musical (Engh, 2013). In addition, music has been shown to reduce students' affective filter and calm students so they feel motivated toward language learning (Engh, 2013).

For pronunciation, using songs is useful for children to develop auditory perception and phonological memory (Fonseca-Mora et al., 2011). This could be connected to Murphy's (1990) "song stuck in my head" phenomenon, which states that music can involuntarily stick to our brains. He argues that songs can be retained in the memory without listeners understanding the meaning of the lyrics; they retain the sounds of words, which can pass through their thoughts multiple times a day, aiding phonological memory.

Many studies support the use of songs to teach pronunciation to children (Shehadeh & Farrah, 2016; Yusmita & Angraini, 2017; Saldiraner & Cinkara, 2021; Palupi, 2022; Salwa Aurelita, 2023) and Phonological Awareness (Degé & Schwarzer, 2011; Engel, 2020). However, most studies focus on older age groups and do not include vowel sounds specifically difficult for Spanish/Catalan EFL learners. Moreover, studies do not include explicit Phonological or Phonemic Awareness activities before communicative practice through songs.

Studies are scarcer on using poetry, but it has been supported in some cases as a tool to teach pronunciation to children (Blomquist, 2019; Farrah & Al-Bakri, 2022).

Few studies compare songs and poems as pronunciation techniques; for instance, a study by Meisa et al. (2013) concluded that songs seem more effective than poems despite both having distinct features such as rhyme, rhythm, and pitch. For this reason, and because the Spanish/Catalan curriculum recommends reciting poetry and singing songs to improve pronunciation (Departament d'Ensenyament, 2015, p. 93), the researcher in the current study chose to compare the two techniques in a preschool classroom context.

1.2 Study aims

In light of the issues mentioned in the previous section and following current pronunciation teaching trends, this thesis aims to study and compare songs and poems as tools for teaching specific English vowel sounds (/ɪ/- /i:/ and /æ/ - /ʌ/) to Spanish/Catalan preschoolers. Each Song/Poem targets a set of minimal pair words, which only differ in one sound or phoneme and have distinct meanings. This approach enables students to focus on and discriminate the target vowel sounds.

The study divides participants (N=41) into two experimental groups, one taught through Songs, and the other through Poems, to measure native speaker perceived **pronunciation accuracy** and student and teacher perception of **enjoyment** in two pronunciation-focused sessions.

For **accuracy**, a Phonological Discrimination Test was created by the researcher to assess pronunciation accuracy in terms of intelligibility. The goal was to see if five native-speaker raters from different English-speaking countries could correctly decode audio recording of eight words uttered by the preschoolers (green, grin, cat, cut, feet, fit, hat or hut) when presented with minimal pair options of each word in the test (options A and B).

For **enjoyment**, participants rated the three main activities in the researcher-created pronunciation session according to whether they "didn't enjoy," "enjoyed," or "enjoyed a lot." In addition, for further reliability, the researcher/teacher completed an observation rubric with variables attributed to learner enjoyment: Pleasure, Relatedness, Competence/Challenge, Improvement, and Engagement.

1.3 Research questions and hypotheses

The research questions and hypotheses for the study presented in this thesis are the following:

1. Is pronouncing words with target phonemes perceived by native speakers as more **accurate** when children are exposed to target sounds through songs?
2. Is pronouncing words with target phonemes perceived by native speakers as more **accurate** when children are exposed to target sounds through songs compared to poems?
3. Does using songs in pronunciation contribute to learner **enjoyment** according to student and teacher perception?
4. Does using songs in pronunciation teaching contribute to learner enjoyment according to student and teacher perception compared to using poems?

Ho 1 = Native speaker perceived **accuracy** in pronouncing words with target phonemes does not improve when children are exposed to target sounds through songs.
Ha 1 = Native speaker perceived accuracy in pronouncing words with target phonemes improves when children are exposed to target sounds through songs.

Ho 2 = Native speaker perceived **accuracy** in pronouncing words with target phonemes does not improve when children are exposed to target sounds through songs compared to poems.
Ha 2 = Native speaker perceived **accuracy** in pronouncing words with target phonemes improves when children are exposed to target sounds through songs compared to poems.

Ho 3 = Using songs in pronunciation teaching does not contribute to learner **enjoyment** according to student and teacher perception.
Ha 3 = Using songs in pronunciation teaching contributes to learner **enjoyment** according to student and teacher perception.

Ho 4 = Using songs in pronunciation teaching does not contribute more to learner **enjoyment** than poems, according to student and teacher perception.
Ha 4 = Using songs in pronunciation teaching contributes more to learner **enjoyment** than poems, according to student and teacher perception.

1.4 Thesis structure

The thesis is structured in various sections, beginning with a Theoretical Background and Literature Review to present theoretical aspects and previous literature on teaching English pronunciation to young learners. The study's Methodology will be presented in the following section, including Research Design, Participants, Materials, Measurement Instruments and Procedures. Study Results will be described and followed by a Discussion to triangulate them with previous information in the other sections of this thesis. Additionally, hypotheses will be provisionally confirmed or disconfirmed. The last section will be dedicated to the Conclusion, consisting of the Study's Purpose, Limitations, Recommendations, and Potential for future work.

2. Theoretical background

2.1 Second Language Acquisition in Early Childhood from a Pronunciation Perspective

2.1.1 The Critical Period Hypothesis

Researchers hold different opinions on the Critical Period Hypothesis (CPH), as there is no conclusive support for whether age determines a learner's ability to achieve native-like pronunciation when acquiring a foreign language (Flege, 1987). Authors such as Muñoz and Singleton (2011) highlight the lack of research on the causes of possible maturational constraints and suggest they be tied to the amount and quality of input and learner motivation.

According to Moyer (2014), CPH supporters state that factors linked with pronunciation accuracy, such as auditory perception or memory decline with age, especially after puberty. The author adds that it is exceptional for learners above ten to have the pronunciation ability of a near-native or native speaker. In contrast, Moyer (2014) considers that some parts of sound production are not tied to the age of onset, so there may be young foreign language learners

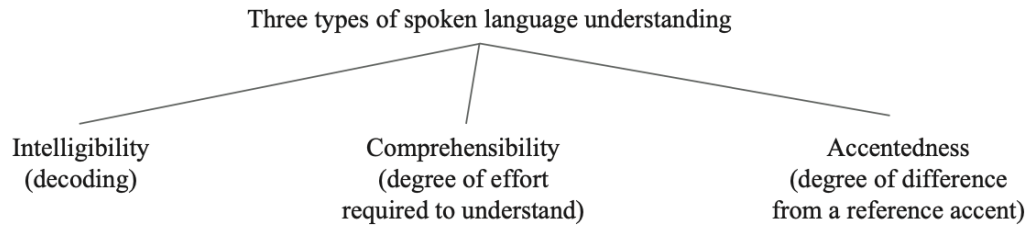
who never achieve a native accent. The author insists on the importance of sufficient type of instruction, which, if adequate, could positively affect the closeness to native-like accents in older learners.

2.1.2 Intelligibility over Nativelikeness

The importance of a native-like accent is argued by Levis (2018). The author adopts a perspective in which "second-language speakers do not need to be native-like to be effective communicators" (p. 11). Levis (2018) adds, however, that "loss of intelligibility is more closely tied to pronunciation" (p.12). Intelligibility is tied to the ability of the listener to decode words (Munro & Derwing, 1995). It is measured through tasks where listeners are asked to write down or discriminate particular words they heard. Intelligibility is one of the three types of spoken language understanding offered by Munro and Derwing (1995), cited by Levis (2018), as shown in this Figure 1.

Figure 1.

Three types of spoken language understanding



Munro and Derwing (1995) in Levis, J. M. (2018). Intelligibility, Comprehensibility, and Spoken Language. In *Intelligibility, Oral Communication, and the Teaching of Pronunciation* (pp. 11–32). Cambridge: Cambridge University Press.

2.1.3 Interlanguage: Spanish/Catalan vs English vowel system

Selinker (1978) proposed that an interlanguage is a language with a unique linguistic system that "has characteristics both from the native language and target language" (Rahal, 2018, p. 245). Therefore, the native language influences the learning process of the second language. Regarding pronunciation, teachers can use this notion to identify the cause of learner mistakes and create activities to target specific language features. For instance, if teachers are aware of

their student's vowel system, they will anticipate possible errors they will make and mitigate them early in the stages of acquisition.

Spanish and English share a similar alphabet; however, when it comes to vowel sounds, English has more sounds than Spanish. On the one hand, Spanish has five tense vowel sounds:/a/, /e/, /i/, /o/, and/u/. /i/ and /o/ are high vowels, /e/ and /o/ are mid vowels, and /a/ are low. On the other hand, English has both tense and lax vowel sounds. Therefore, Spanish learners of English tend to forward transfer tense vowel sounds when they pronounce lax vowel sounds in English (Gorman & Kester, 2001). The following table shows examples of forward transfer of vowels made by Spanish learners of English.

Table 1.

Examples of Spanish to English forward transfer of vowels

Spanish phonemes	English phonemes	Result
/a/	/æ/	"hat" may sound like "hot"
/e/	/ɛ/	"get" may sound like "gate"
/i/	/I/	"hit" may sound like "heat" "this" may sound like "these"
/o/	/ɔ/ /ʌ/	"ball" may sound like "bowl" "bun" may sound like "bone"
/u/	/ʊ/	"put" may sound like "poot"

Gorman, K. B., & Kester, E. S. (2001). Spanish-influenced English: Typical phonological patterns in the English language learner. In *Seminar offered by Bilingiustics at ASHA* (p. 7)

Catalan speakers present a seven-vowel sound system instead of the five-vowel system that Spanish speakers have (Amengual, 2011). Catalan speakers can produce phonemes using the lower-mid vowels /ɛ/ and /ɔ/ (Amengual, 2011), also in the English vowel system. Therefore, Catalan speakers can produce these vowels when pronouncing words in English.

Levis (2018) points out that it is crucial to determine which errors teachers should target to improve intelligibility when pronouncing in English. Therefore, the vowels which do not exist

in Spanish or Catalan vowel systems mentioned in Table 1 must be introduced in the pronunciation classroom for students to produce them accurately and be better understood by native speakers of English.

2.1.4 Fossilisation

The general expectation for students learning a foreign language is to keep progressing through instruction until they are proficient. However, in some cases, learners present fossilised mistakes, which students keep repeating no matter how many times they are corrected. Catelly (2012) refers to this phenomenon as unfavourable fossilisation. This type of fossilisation prevents students from ultimate attainment of the foreign language. Selinker (1978), cited by Catelly (2012), suggests the opposite effect, which occurs when students favourably fossilise correct structures.

The cause of fossilisation is still up for debate; Catelly (2012) proposes possible reasons, such as the influence of the first language or low-quality learning strategies and input. The author supports the idea that defossilisation is possible through consciousness-raising techniques. In contrast, Han (2012) states that despite input quality, motivation and communicative practice, students will not present improvement when an error has already been fossilised. He suggests learners will be less likely to fossilise mistakes if the L1 influence is inconsistent and infrequent. Han (2012) also states that preventing fossilisation is possible if teachers are realistic about the amount of time dedicated to specific language features to avert mistakes.

Rahal (2018) exposed the issue of phonological fossilisation, which happens when the learners incorrectly pronounce sounds because, for instance, they do not exist in their L1, as stated in the previous section of this thesis. The author reviewed many studies that have inquired on phonological fossilisation, and it can be said that the main reasons for its occurrence are the following: (1) mother tongue inference, (2) lack of pronunciation teaching methods in phonetics, phonology, and intonation (3) inconsistency of English vowel sounds. Moreover, the stated suggestions for improvement or elimination are: (1) L2 environment and quality input, (2) use of the audio-articulation method, and (3) corrective feedback.

2.1.5 The bilingual brain

There are many benefits to bilingualism and multilingualism in Early Childhood, whether acquired from birth as compound bilinguals, or in school as coordinate bilinguals (Nacamulli, 2015). As Diamond (2010) states, "exercising body systems improves their function; not exercising them lets their function deteriorate" (p.333). Because bilinguals "impose extra exercise on their brain every minute of their waking hours" (p.333), bilingual and multilingual children have shown better results in task-switching activities, have a higher attention span and adjust to environmental changes (Marian, 2012). Additionally, it enhances additional language learning (Moreno, 2020).

2.2 The role of pronunciation in the Spanish/Catalan Preschool and Primary curriculum

2.2.1 Analysis of the role of pronunciation in the EFL preschool and Primary curriculum

English as a Foreign Language (EFL) is not compulsory in Catalonia's Early Childhood Education (EEE). As a result, there are no official guidelines for English teachers in the preschool setting. However, many schools in this autonomous community offer EFL classes starting at age 3. EFL learning becomes compulsory in Primary school, and a specific document has been designed to help schools develop their foreign language curriculums at Primary level.

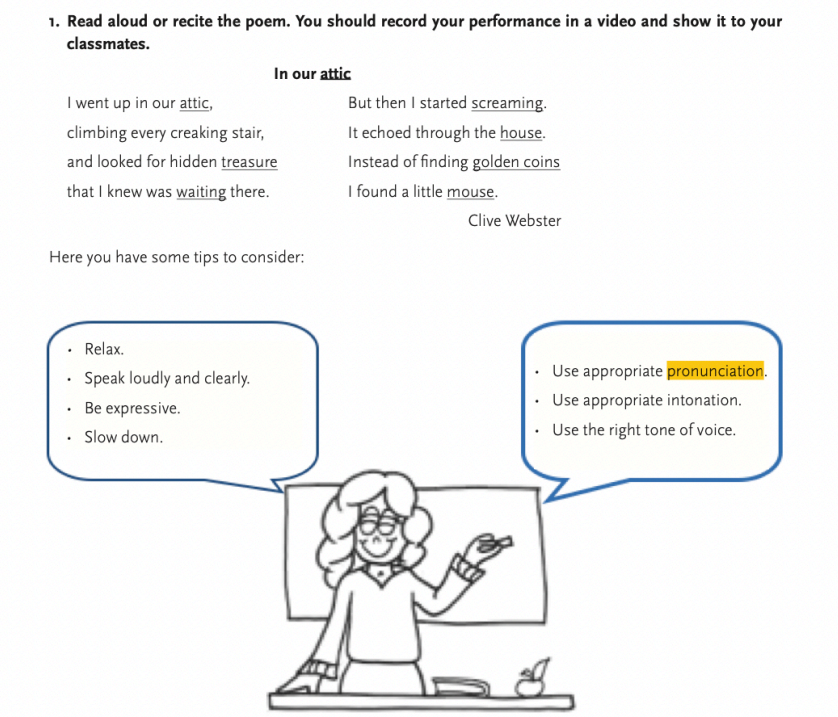
When observing this document, a few issues arise regarding pronunciation teaching. Firstly, there is no mention of Phonological Awareness or Phonemic Awareness, which, as mentioned in previous sections, is the basis for oral language. Even the curriculum states that "understanding and communicating in the new language is the principal goal to achieve" (Departament d'Ensenyament, 2015, p. 7) and "oral expression in foreign languages implies the knowledge of lexis, morphosyntactic, textual, phonetic, phonological and non-verbal elements" (Departament d'Ensenyament, 2015, p. 9). The document also establishes written expression as a basic competency in the foreign language in Primary school. However, if there is no previous work on Phonological or PhonemicAwareness before the writing stage, that is, no previous focus on English sounds, how will students pronounce phonemes accurately when decoding them?

Secondly, the activities proposed for oral evaluation in English remind students to use appropriate pronunciation, but there are no indications for teachers to help students improve

their pronunciation skills other than a brief mention of the benefits of self-correction and corrective feedback from teachers and other students (Departament d'Ensenyament, 2015, p.30) and a short reference to the use of songs and poems as communicative tasks (Departament d'Ensenyament, 2015, p. 93) without further resources or which aspects of pronunciation to work on for Spanish/Catalan EEE students specifically. An example of an evaluation activity is shown below in Figure 2.

Figure 2.

Example of an evaluation activity (English)



1. **Read aloud or recite the poem. You should record your performance in a video and show it to your classmates.**

In our attic

I went up in our attic,
climbing every creaking stair,
and looked for hidden treasure
that I knew was waiting there.

But then I started screaming.
It echoed through the house.
Instead of finding golden coins
I found a little mouse.

Clive Webster

Here you have some tips to consider:

- Relax.
- Speak loudly and clearly.
- Be expressive.
- Slow down.

- Use appropriate pronunciation.
- Use appropriate intonation.
- Use the right tone of voice.

Departament d'Ensenyament (2015). Competències bàsiques de l'àmbit lingüístic. Llengües estrangeres. Identificació i desplegament al'educació primària: Competències bàsiques a l'educació primària (p. 95).

The European Parliament highlights in its Language Policy resolution of 11th November 2021 that learning foreign languages, particularly English, is of the utmost importance (The European Education Area: A Shared Holistic Approach, 2021). Moreover, The Council of Europe's goal of "plurilingualism" supports the development of comprehensive teaching and learning tools for European schools (The European Education Area: A Shared Holistic

Approach, 2021). This statement includes Spanish/Catalan schools that perhaps require an updated language curriculum or EFL teacher training.

2.2.2 Teacher's perspective on pronunciation in the EFL classroom

Pronunciation teaching has often been neglected by teachers of EFL due to several reasons, such as motivation, resources, and facilities (Gilakjani & Sabouri, 2016) or lack of training in pronunciation instruction (Tran & Nguyen, 2020). In contrast, teachers support the importance of pronunciation teaching with a focus on intelligibility (Tran & Nguyen, 2020).

The growing perception of English as a lingua franca has led to a pluricentric approach, meaning raising awareness of different English accents is essential (Couper, 2017). The author also states that teachers still support using a specific native-speaker model to teach pronunciation and that non-natives struggle to feel confident in using their own accents as a model (Couper, 2017).

2.3 Strategies to teach EFL pronunciation to children

2.3.1 A brief overview of current pronunciation teaching trends

Teachers in young learner classrooms may feel confused when developing pronunciation practice activities. Therefore, it is essential to resource to empirical research on current trends in pronunciation teaching and learning which can be applied to the preschool classroom, some of which have been discussed in the previous sections of this Theoretical Review but have been summarised in the following statements according to Pennington (2021) in her review article on pronunciation teaching:

- Fossilised errors may be overcome at any age, but they are difficult in older students and require high-quantity and high-quality L2 input.
- Contextual factors, such as the learner's characteristics and experiences, affect pronunciation.
- A bilingual or multilingual learner's pronunciation in a new language will be influenced by multiple languages they have learnt or are acquiring.

- Intelligibility and communicative effectiveness should be the goal over nativelikeness.
- A Focus-on-form approach should be included in communicative language instruction. Therefore, it is recommended that the session begins with explicit instruction and controlled practice on the target segmental (consonant and vowel sounds or phonemes) or suprasegmental (stress, rhythm, and intonation) features of the language. Next, meaningful communicative activities should follow and be accompanied by corrective feedback.
- Pronunciation activities should be created to respond to specific learner group needs and performance.

Furthermore, Couper (2021) states, "In developing their own practice activities, teachers can follow the same principles involved in communicative language teaching, encouraging students to interact in the achievement of authentic communication goals." (p. 138). In addition, the author mentions that comparing L2 with L1 sounds can be an excellent point because it allows learners to begin with concepts they already possess.

2.3.2 Phonological and Phonemic Awareness activities and suggestions

Children are more sensitive to a new language's sounds and rhythms (Pinter, 2017) and, as Darcy et al. (2015) state, "Optimal speech processing and efficient word recognition in the L2 is dependent on the development of a complete L2 phonological system that will effectively limit the influence of the L1 knowledge during processing" (p. 63). Based on this argument, focusing on children's Phonological Awareness in the L2 is crucial to prevent phonological fossilisation and improve the chances of intelligible pronunciation.

Phonological Awareness is defined as "an individual's implicit and explicit sensitivity to the sublexical structure of oral language" (Pullen & Justice, 2003, p. 88) or "the ability to attend to, detect, and manipulate the sound units of words independent of their meanings" (Hu, 2003, p. 432).

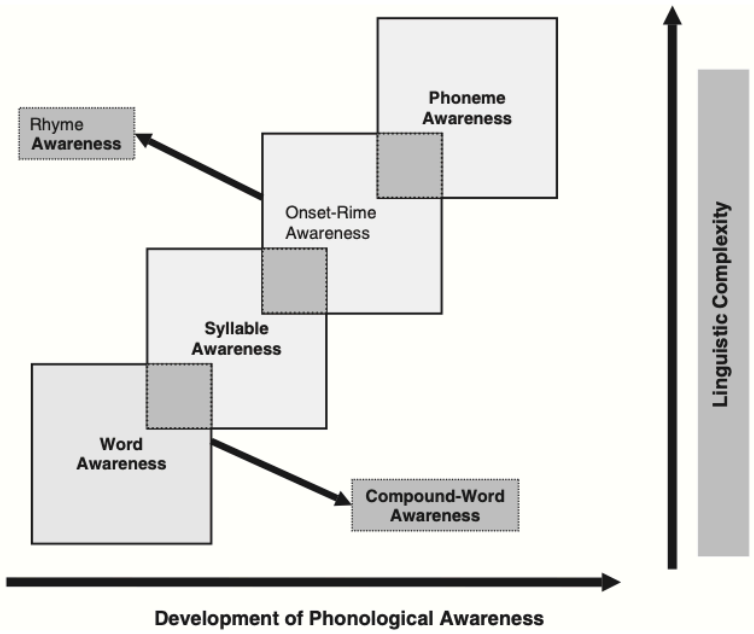
A child learns the phonological composition of oral language from large to small units. Therefore, the most advanced level of PA is blending and segmenting phonemes within words

(Pullen & Justice, 2003), for this reason, this last stage is called Phoneme or Phonemic Awareness (Phillips et al., 2008).

Figure 3 below represents all stages of Phonological Awareness development in Early Childhood by Phillips et al. (2008), who adds that the phases do not come one after the other, but overlap.

Figure 3.

The Development of Phonological Awareness



Phillips, B. M., Clancy-Menchetti, J., & Lonigan, C. J. (2008). Successful Phonological Awareness instruction with preschool children: Lessons from the classroom. *Topics in Early Childhood Special Education*, *28*(1), 3-17

2.3.3 Music as a tool to teach pronunciation

Broad (2020) argues in his literature review of Second Language Acquisition (SLA) theory that Krashen's affective filter hypothesis is based on a barrier preventing students from acquiring the second language because of anxious or negative emotions, even if the input is appropriate. In fact, "acquirers with a low affective filter seek and receive more input, interact with confidence, and are more receptive to the input they receive." (Richards & Rodgers, 2008,

p. 183, cited by Engh, 2013). Research shows that music reduces the affective filter and calms students so they feel motivated toward language learning (Engh, 2013).

Fonseca-Mora et al. (2011) state that “speech melodies are the natural intersection between music and language" (p.2). This can be observed when looking at the four elements of pronunciation, which are stress, rhythm, pitch, and intonation, and the elements of music, which include, amongst others, beat, rhythm, pitch, and melody. Additionally, Gardner's theory of human cognition suggests a connection between music and language from before babies can utter their first words. A baby's first sound is a cry, which then develops into rhythmic and melodic repetition of human language features. Finally, the musical aspects of language are replaced by phonemes (Fonseca-Mora et al., 2011), which is when babies start saying words.

This above information connects to Gardner's multiple intelligences hypothesis, which considers that learners have all types of intelligences, including verbal and musical (Engh, 2013). Because students have different intelligences, music can be conceived as a tool to teach foreign languages and can also develop this type of intelligence in children.

Psychologically, children rate higher than adults in memory, induction, and motor skills (Sujono, 2021). The structure and motivational aspects of including songs in the classroom aid children with phonological memory retention because they develop auditory perception and metacognitive knowledge (Fonseca-Mora et al., 2011). In addition, Murphy’s (1990) Song Stuck in My Head phenomenon (SSIMH) is based on Vygotsky’s “Inner Speech” hypothesis and Krashen’s “The Din in the Head” hypothesis. Children discover they can have involuntary thoughts without saying them out loud (Murphy, 1990). Sometimes, music can involuntarily stick to our brains, and we can think of song lyrics in any context. Songs can be retained in the memory without listeners understanding the meaning of the lyrics (Murphy, 1990); they retain the sounds of words, which can pass through their thoughts multiple times a day, aiding phonological memory.

Finally, the Communicative Theory stresses the relationship between form and communicative function (Broad, 2020). When singing a song, the sounds, words, and structures are integrated into the song’s context, so there is a communicative intention behind learning the lyrics. As a result, songs can be a way to integrate communicative practice in the pronunciation class, for instance, to teach segmental features of language.

2.3.4 Poetry as a tool to teach pronunciation

Blomquist (2019) states that "Low cognitive load combined with deliberate practice is one of the keys to good learning in general" (p.83). Teacher-created poems allow the teacher to focus on a certain phoneme or phonemes, lowering cognitive load and allowing them to pay more attention to the target sound or sounds (Blomquist, 2019).

3. Literature Review

The following Literature Review delves into studies on pronunciation teaching strategies and the importance of teaching pronunciation and Phonological Awareness in Early Childhood. After each study is mentioned, there is a discussion on the research potential and intention of the current study: "Songs/Poems as a tool to teach English Pronunciation to Spanish/Catalan Preschoolers".

3.1 Connecting music to pronunciation teaching

Degé and Schwarzer (2011) created a music program for preschoolers to see how music correlates with Phonological Awareness in language processing. As mentioned in the Theoretical Review of this thesis, PA is one of the keys to successful pronunciation learning. One experimental group received phonological skills training, another experienced the music program, and the control group received sports training with no attention to PA or music skills. The results showed that both experimental groups improved from the Pretest to the Posttest.

The current study combines PA skills and music in its sessions. Building on previous research that demonstrates the individual benefits of teaching PA skills and music separately, it will be valuable to observe the extent to which these benefits can be enhanced by combining them. Additionally, the current study will provide insight into vowel production within the Poem Group, where music is not a factor.

Shehadeh and Farrah (2016) studied a large sample of N=123 young Palestinian EFL learners with Arabic as their L1 on the effect of using songs for vocabulary acquisition and pronunciation. The results of a vocabulary test and pronunciation test showed an improvement

in both areas of language acquisition due to using songs in the EFL classroom. The pronunciation test focused on auditory discrimination of rhyming words, choosing between two-word sounds, and circling silent letters. The researchers also studied teachers' perceptions of using songs to teach English. They concluded that practitioners have a positive attitude towards it, believing it improved students' achievement, interest, and motivation.

In the current study, children are aged 5-6, so they are mostly preliterate. Consequently, the Pretest and Posttest designs for testing pronunciation accuracy are entirely oral for students. However, the oral productions evaluated by adult native-speaking raters are placed in a Phonological Discrimination test. Moreover, enjoyment will be reviewed from both the student's and teacher's perspectives.

Yusmita and Angraini (2017) studied how using songs in seventh grade improves Indonesian EFL students' pronunciation. T-test showed that students' pronunciation enhanced in the group where target words were taught with songs over those who were not. In both groups, the researchers used activities to practice homophones, "missing lyrics," gap filling, and phonetic symbol games for twelve sessions. Furthermore, the experimental group was asked to recite and sing the songs from the missing lyrics activities and repeat any difficult words to understand and pronounce them; therefore, they were familiar with both meaning and pronunciation for the post-pronunciation test. This fact led the researchers to believe that understanding the meaning of words directly impacts pronunciation accuracy.

The researcher in the current study ensured that the students understood the target words in the songs/poems before singing or reciting them. However, in the Pretest and Posttest recordings to assess pronunciation accuracy, students uttered some words with target sounds they didn't specifically study in class to observe their ability to produce correct phonemes from spontaneous imitation.

Engel (2020) conducted a study on preschoolers aged three to four for her doctoral thesis. The students were taught music with and without words to observe improvements in Phonological Awareness. Although the sample was small (N=10), the PELI (Preschool Early Literacy Indicators) test results indicated a beneficial relationship between music and PA. However, the results showed improvement when using songs without words, and songs with words did not affect the students' Posttest results.

Contrary to Engel's (2020) study, the researcher in the current study decided to use songs with lyrics and poems with words. This approach may have better results with older students between the ages of 5 and 6 with a slightly wider vocabulary. Moreover, the sample of the current study is larger (N=41).

Saldiraner and Cinkara (2021) used songs to teach pronunciation to 10- to 12-year-old Turkish EFL learners. Target words were included in read-aloud texts for the control group, and song lyrics for the experimental group. The researchers made sure that the target words were unfamiliar to the learners. Pre-activities were taken out by the experimental group, including analysis of lyrics, rhythm, music videos of each song, and a karaoke activity. The control group did not take out these activities; their sessions consisted of listening to the song lyrics recited by an online voice read-aloud program, and they read the text aloud to practice pronunciation. It was proven that lexical pronunciation improved more in the song than in the text group. Observations by the teacher helped to determine that there was more student participation in the experimental group and that students kept asking for the song they would learn in the following session.

In the current study, both experimental groups conducted preparative Phonological Awareness pre-activities, focusing on Phonemic Awareness instead of musical activities. To observe enjoyment increase with songs versus poems, the students completed a rubric on the level of enjoyment of each activity taken out in class.

Palupi (2022) studied the effects of songs on the pronunciation of a small sample group of N= 23 Indonesian EFL fourth graders. The target sounds were divided into vocal, consonant, and diphthongs (15 words per group) and presented within song lyrics of ready-made songs in the student's coursebooks. Therefore, the students were already familiar with the target words. The researcher asked questions about meaning and form during the learning process, giving learners rewards for participation and correct answers. The researcher also took out recall activities from the previous session before teaching a new song. All song learning included movement to accompany the lyrics. The pre and Posttests were designed as pronunciation tests of target words within the song and assessed through a rubric. Results showed that using songs as a teaching strategy improved students' pronunciation of target sounds.

The current study has similar characteristics but focuses on sounds catering to Spanish/Catalan students' pronunciation needs. In addition, the researcher created the words for the songs/poems instead of relying on ready-made materials.

Salwa Aurelita (2023) focused on improving the pronunciation of palato-alveolar and dental phonemes through songs in Indonesian first-year high schoolers. Pre- and post-pronunciation tests consisted of pronouncing words with target phonemes and were distributed to the control and experimental groups. The words were taken from the Oxford Learners Dictionary and did not necessarily appear in the songs. The songs aimed to teach learners the dental or palate-alveolar sound. Words in the test were presented as minimal pair words and analysed by the researcher through phonetic transcription to determine phoneme pronunciation accuracy. Motivation and enjoyment were not investigated in this study, which is a suggestion the author makes for further research.

As Salwa Aurelita (2023) proposes for further research, the current study analyses student and teacher perceptions of enjoyment. Furthermore, the target phonemes are vowels instead of consonants. Student productions are analysed by native speakers of English, not the researcher herself, preventing possible biased results.

3.2 Relating poetry to pronunciation teaching

Farrah and Al-Bakri (2022) examined the attitudes of N=73 tenth graders and N=214 English language teachers toward using poetry in the EFL classroom and the student's performance on vocabulary and pronunciation tests. The researchers used teacher-selected literary texts. Results of the questionnaires showed that both teachers and students have positive attitudes towards using poetry in the English language classroom and that the control group was outperformed by the experimental group.

The poems chosen for the current study are self-made, originally thought of as lyrics to a song. Therefore, the structure of the text is poem-like but cannot be classified as a literary text.

Blomquist (2019) studied the Effect of Teacher-Authored Poetry on the Pronunciation of the Voiced Dental and used TPR (Total Physical Response) and guided practice of the poem taught, which showed positive effects on remembering the poem and its sounds.

The current study uses TPR in both the Poem and Song Groups to enhance the benefits of using movement to retain Song/Poem text in the participant's memory.

Although the previous study shows the benefits of using poetry for pronunciation teaching, a study with Indonesian learners of English by Meisa et al. (2013) concluded that using songs is a more effective technique in teaching pronunciation than poems. There is very little research done to compare songs and poems as pronunciation techniques. Although the text is the same, the difference between poems and simply reading out text is that poems have distinct features such as rhyme, rhythm, and pitch (Meisa et al., 2013). Therefore, the structure resembles a song's lyrics but without adding melody. For this reason, the current study chooses to compare songs to poems because they have similar linguistic features to both; the main difference is the inclusion of melody.

3.3 Raising awareness on teaching Pronunciation and Phonological Awareness in Early Childhood.

A study by Wijngaarden (2001) showed that Dutch-speaking Americans had problems being understood by Dutch native speakers because of confusion about vowels which were not part of the American sound system.

The current study focuses on improving learners' English vowel pronunciation, which has been shown to lessen intelligibility in the previously mentioned study.

Although the Critical Period Hypothesis has been mentioned in the previous section and is still up for dispute, a study by Abrahamsson and Hyltenstam (2009) measured the age of onset of nativelikeness with Spanish/Swedish bilinguals in a large-scale study (N=195). The results indicated that the earlier the participants had learnt the L2, the more nativelike they sounded. Adult learners were described as never being able to achieve nativelike competence. Furthermore, in 2012, Abrahamsson studied the relationship between age of onset and ultimate attainment of the language and observed that age of onset significantly impacts ultimate attainment in pronunciation and grammar.

One consideration about the age of onset is that most preschool children are preliterate. When they begin reading, "children often use a phoneme-to-grapheme or sounding out strategy when

they write" (Gorman & Kester, 2001, p. 13), therefore the opportunity to teach the English phonological system without the influence of the L1 pronunciation is limited to this age group.

The researcher in the current study intends to take advantage of preschool participants' early age, who, although not certainly, are more likely to produce native-like pronunciation.

Lourenço and Andrade (2014) conducted a qualitative study to assess Portuguese preschoolers on PA using validated tests and video recordings. The preschoolers went through seven Awakening to Languages sessions, which proved effective for the experimental group. The researchers recommend further research with bi/plurilingual groups.

Therefore, the current study includes Phonological Awareness-enhancing activities as a previous step to the songs/poems. Based on these findings and previously mentioned research, the probability of students improving their awareness of English sounds will be higher if a combination of PA activities and songs/poems is included in each session.

4. Methodology

4.1 Research design

Cook and Compbell (1979), cited by Griffee (2012), state that a study can be defined as an experimental design if they "involve at least a treatment, an outcome measure, units of assignment, and some comparison from which change can be inferred and hopefully attributed to the treatment" (p. 5). To justify that this study is an experimental design, all components described by the authors have been matched to the components of this study:

-Treatment or independent variable: Using songs/poems as tools to teach pronunciation to Spanish/Catalan preschoolers.

-Outcome measures or dependant variables: Native speaker perception of pronunciation accuracy and student/teacher perception of enjoyment.

-Unit of assignment: Sample of N=41 Spanish/Catalan children aged 5-6 (I5) divided into two groups: an experimental group for Songs (N=21) and a second experimental group for Poems (N=20). They are students in a semi-private preschool in Barcelona called Escola IPSI, chosen by convenience.

-Comparison: Pretest and Posttest.

Using qualitative and quantitative data indicates that this is a Mixed-Methods study. Qualitative dichotomous and Likert scale data are numerically coded (descriptive statistics), and quantitative data (inferential statistics) are run through JASP, an open-source statistics program. Both data types are collected and analysed using different measurement instruments described in this thesis's Measurement Instruments and Results section.

4.2 Participants

The participants (N=41) were divided into two groups: an experimental group for Songs (N=21) and a second experimental group for Poems (N = 20) of Catalan/Spanish children aged 5-6 (I5). They are students in a semi-private preschool in Barcelona called Escola IPSI, chosen by convenience because the researcher is taking out her master's degree internship at this school. The CEFR level of the students is A0/A1 Beginner/Elementary. For most participants, English is their L3, after Catalan and Spanish, although for some, it is their L4.

All students have two hours of English per week at school. During one of these hours, students participate in a project called MusEnglish, where the English teacher and Music teacher work collaboratively to combine language learning and music. The school is in Barcelona's Eixample Esquerra district. Because of its location and semi-private nature, most families are upper-middle class.

For further information on participants from both experimental groups, their parents completed an English and Music-related background pre-questionnaire (Appendix C). The questionnaire results are described in this thesis's "Results" section.

4.3 Materials

4.3.1 Rationale for the choice of explicit instruction Phonemic Awareness activities

Carruth and Bustos (2019) suggest music, poetry, and games as effective instructional strategies for teaching Phonemic Awareness. The authors add that "exposure to oral language skills with the usage of pictures and songs will increase English Language Learning students'

language development" (p. 56). The authors also recommend using physical movement to teach children Phonemic Awareness skills, such as "Phoneme Hop" to practice phoneme segmentation. The teacher selects a word and students must hop as many times as the sound it has. For instance, for the word "green," students would listen to the teacher's production and hop four times: /g/ /r/ /i:/ /n/. This activity is replicated in the current study's lesson plan (Appendix B).

To teach phoneme isolation, that is, the identification and isolation of specific phonemes in words, Málková and Caravolas (2016) used a puppet to cater to students at a young age. In the current study, the lesson plan includes an activity using a Moving Ear Hat, which students must pull whenever they hear a particular phoneme to practice the phonemic isolation skill.

Olinger (2023) employed a technique to practice phoneme blending: a rubber band was used as a prop to demonstrate how individual letters can link together to form a word. The instructor used slowed-down speech while elongating the rubber band. Olinger (2023) suggests that students segment the stretch-out word to practice phoneme segmentation. In the current study, the researcher employs this technique without phoneme segmentation.

4.3.2 Songs/Poems and Lesson Plan

The materials created for this study were two song lyrics: "The Green Dinosaur" and "Dino's Hat" (Appendix A). The song lyrics were based on the dinosaur topic taught as a project at the school. Pennington (2021) insists on the importance of contextual factors, such as the learner's characteristics and experiences with pronunciation learning. Hence, the researcher used this opportunity to combine what the children were learning with the new vowel sounds.

One group practised the lyrics in song form with music, and the other group practised it as if they were reciting a poem without music. Each song taught students two vowel sounds, presented within minimal pairs: /ɪ/- /i:/ (grin/green) and /æ/ - /ʌ/ (hat/hut) to focus on and discriminate the target vowel sounds. The lyrics used were created by the researcher to work on target phoneme pronunciation. The melody of both songs was taken from Camille Saint-Saëns's "Carnival of the Animals" (1886), in particular, "Fossils" and "Royal March of the Lion". The songs were played in class using a speaker.

In addition, the researcher created a lesson plan that included Phonemic Awareness activities, followed by Songs/Poems to teach target phonemes (Appendix B), inspired by proven effective strategies in empirical research articles described in the previous section.

4.4 Measurement Instruments

For data collection, the following instruments were used:

1. Self- made Pre-questionnaire for **background information** in Catalan and English for parents/legal guardians to fill out (Appendix C). Questions were placed in a Form designed with Microsoft Forms.
2. Pronunciation **accuracy** Pretest audio recordings of participants (View target words + Flashcards for prompting in Appendix D). Utterances were placed in a Phonological Discrimination test for adult native speakers to rate.
3. Pronunciation **accuracy** Posttest audio recordings of participants (View target words + Flashcards for prompting in Appendix D). Utterances were placed in a Phonological Discrimination test for adult native speakers to rate.
4. Self-made **enjoyment** Post-questionnaire for students (Appendix E).
5. Self-made Teacher observation rubric to measure **enjoyment** (Appendix F) based on the 5-factor solution proposed by Davidson (2018) to measure enjoyment. The 5 factors proposed by the author are: Pleasure, Relatedness, Competence/Challenge, Improvement and Engagement.
6. **Consent Form** and **Information Sheet** for parents/legal guardians of the participants (Appendix G).

4.5 Procedures

The parents/ legal guardians of the participants were sent a Consent Form and Information Sheet to fill out via letter. Once the consent forms had been filled out, a Microsoft Forms pre-questionnaire for background information was sent to the participant's parents via email. The background information pre-questionnaire had 7 questions about the participant's age, English Level, and Musical Experience. Once the researcher had received answers to the pre-questionnaire, participants took a pronunciation accuracy Pretest via audio recording. The test was divided into 4 sets of minimal pair words: 2 minimal pair words for each sound. Therefore,

the participants uttered 8 words in total: /ɪ/- /i:/ (grin/green and fit/feet) and /æ/ - /ʌ/ (hat/hut and cat/cut). The students were recorded with the researcher's iPhone 13 microphone.

Because the study participants were preschoolers who did not know how to read, the researcher presented flashcards with the target word and an image and explained the word's meaning to each participant. In addition, if the student did not say the word on the flashcard automatically while recording, the researcher said it first, and then the student repeated it.

After the Pretest, the researcher/teacher taught 2 sessions per group, one per minimal pair. One experimental group learned the lyrics to two songs with target phonemes, and the second experimental group learned the same lyrics in the songs, but they recited them as a poem. The researcher used TPR to help students learn the songs/poems as she attributed the movement to each sentence in the song/poem. For example, in the song lyric "Is that something green?", the teacher asked a student to point to one of the students wearing a dinosaur hat.

The students were rewarded if they had a good attitude, participated in class, answered questions correctly, or pronounced a word well. The first method was to use positive reinforcement words and affirmations. The second method was to give them stickers in the shape of a dinosaur (when they did "The Green Dinosaur" song/poem in Session 1) and a dinosaur stamp (when they did the "Dino's Hat" song/poem in Session 2).

The phonemes chosen were all vowel sounds and they are usually intricate for Spanish/Catalan learners to pronounce, as some don't exist in their L1: /ɪ/- /i:/ (grin, green) and /æ/ - /ʌ/ (hat, hut). The target words were presented in minimal pairs in the lyrics, meaning only varied in one phonological element. Therefore, the students had to pay close attention to each phoneme to pronounce the word correctly. The words were chosen considering they have an equal prosodic environment, meaning they have the same strength within the song lyrics.

Focusing on how phonemes sound is part of developing learners' Phonemic Awareness, a crucial element in improving pronunciation and literacy skills. To practice target sounds before each song, both groups of students were presented with Phonological Awareness activities, as seen in the lesson plan (Appendix B). These activities focused on blending, segmenting, and isolating phonemes, which are exercises to increase Phonemic Awareness, the last stage in

Phonological Awareness. The researcher/teacher used objects and movement exercises to exemplify and take out the activities.

Participants took the pronunciation accuracy Posttest under the same conditions as the Pretest. The participants in the Song Group and Poem Group uttered 8 words in the Pretest and the same 8 in the Posttest. To measure native speaker perceived pronunciation accuracy of the recordings, five native speakers from different English-speaking countries rated 16 words (green, grin, cat, cut, feet, fit, hat and hut) uttered by each of the 41 participants and recorded by the researcher. Therefore, they rated 656 words in total, considering the number of words in the Pretest and Posttest, and the number of participants. The goal was to observe differences in pronunciation accuracy between the Pretest and the Posttest, focusing on intelligibility from their minimal pair. Therefore, the raters were presented with minimal pair options of each word in the test (options A and B). For instance, if the participant in the recording uttered the word "Grin", the rater had to choose between "Option A: Grin" or "Option B: Green".

The 656 Pretest and Posttest recordings were individually placed in an online audio form, "AidaForm," divided into Part 1 and Part 2. The total number of correct answers in the Pretest and Posttest per participant (N=41) according to each rater (N=5) were put into an Excel sheet and then run through a Shapiro-Wilk, Mixed Models and Repeated Measures ANOVA test on JASP.

Student's perception of enjoyment was measured through a Likert scale-type enjoyment Post-questionnaire (Appendix E), where students had to choose between three pictures: (1) Child at the bottom of the ladder = "didn't enjoy", (2) Child halfway up the ladder = "enjoyed" (3) Child at the top of the ladder = "enjoyed a lot".

Teachers' perceptions of student enjoyment were measured through a dichotomous Yes/No rubric (Appendix F) based on the 5-factor solution proposed by Davidson (2018) to measure enjoyment: Pleasure, Relatedness, Competence/Challenge, Improvement, and Engagement.

5. Results

5.1 Qualitative: Participant Background Information Questionnaire

Figure 4.

Q1 of the Self-made Participant Background Information Questionnaire

The questionnaire was answered by 42 parents who had signed their child's Consent Form to participate in the study. However, only 41 participants were included in the analysis because one in the Poem Group did not attend one of the pronunciation sessions and could not be accounted for in the Pretest and Posttest design.

In the first question, "Your child's age", all parents indicated their child was between 5 and 6 years old.

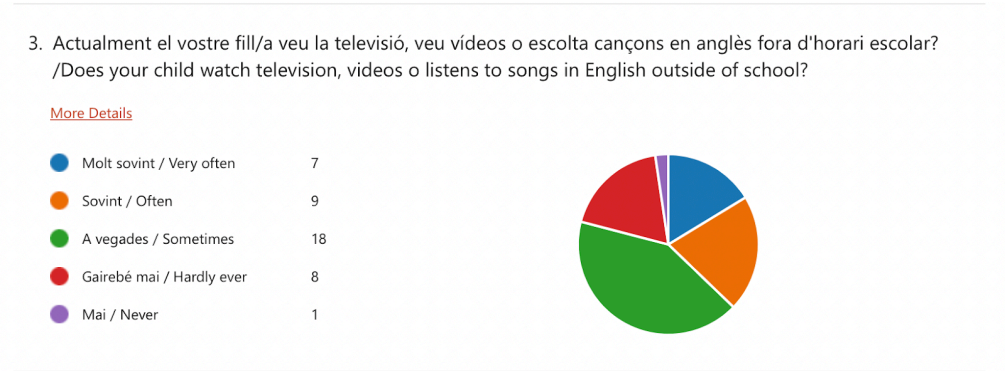
Figure 5.

Q2 of the Self-made Participant Background Information Questionnaire

In the second question, "Does your child participate in extra-curricular English activities?" 63% indicated their children do not attend English extra-curriculars, and 37% do.

Figure 6.

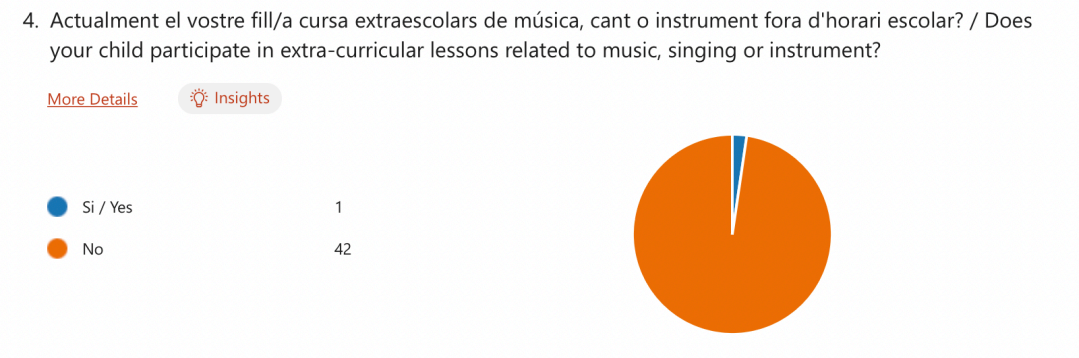
Q3 of the Self-made Participant Background Information Questionnaire



In the third question, "Does your child watch television, videos or listen to songs in English outside of school?" 16% of parents chose the option "Very often", 21% chose "Often", 42% chose "Sometimes", 19% chose "Hardly ever" and 1% chose "Never".

Figure 7.

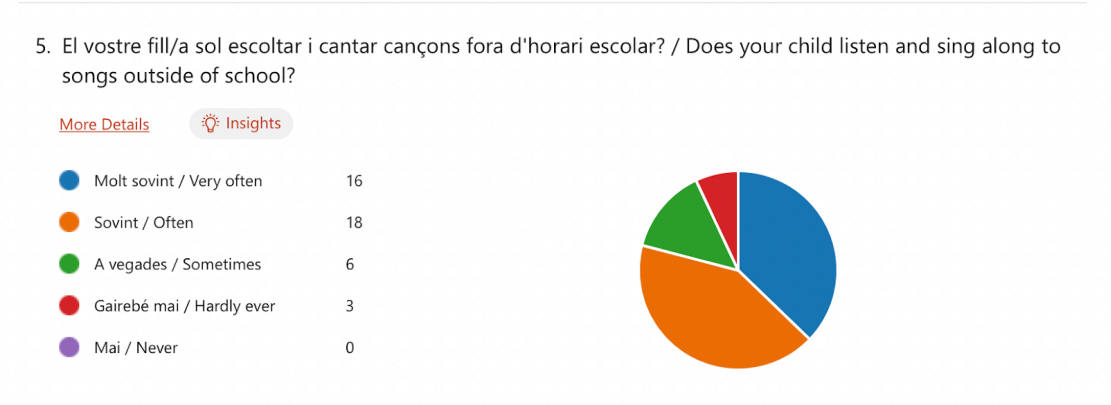
Q4 of the Self-made Participant Background Information Questionnaire



In the fourth question, "Does your child participate in extracurricular lessons related to music, singing, or instrument?" One parent out of 42 indicated that their child does. When the participants were asked about this in class, one participant from the Song Group expressed that they go to choir practice once a week.

Figure 8.

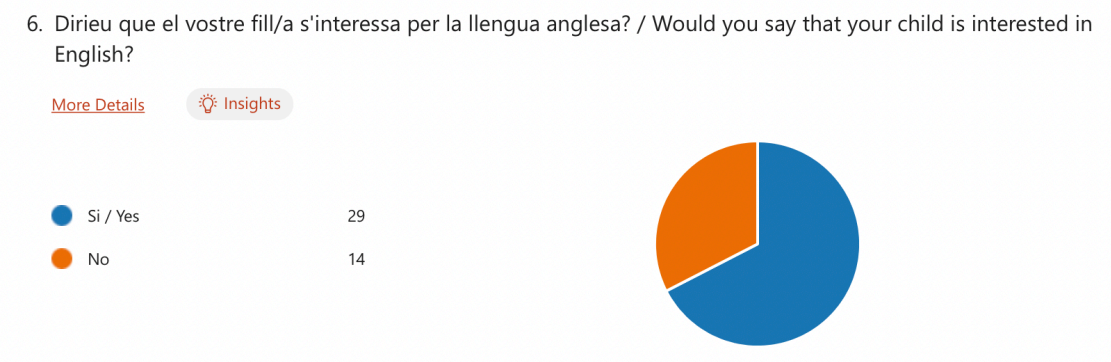
Q5 of the Self-made Participant Background Information Questionnaire



In the fifth question, "Does your child listen and sing along to songs outside of school?", results show that 37% of participants listen and sing to songs "Very often", 42% "Often", 14% "Sometimes" and 7% "Hardly ever".

Figure 9.

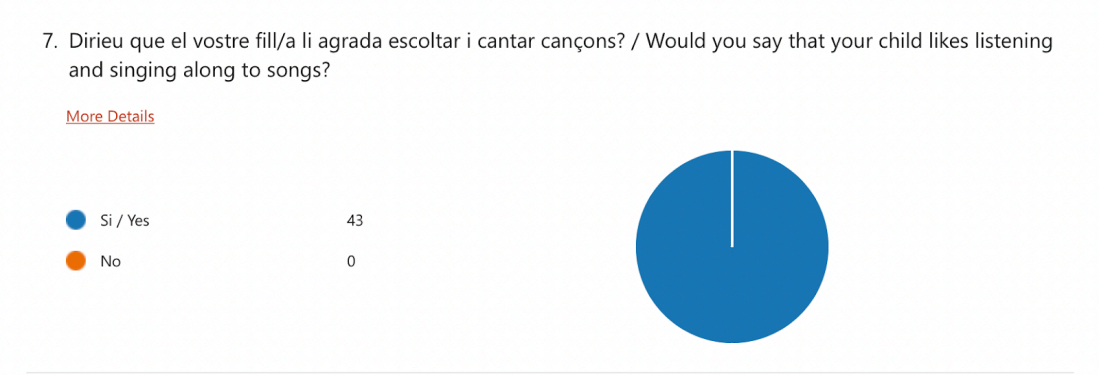
Q6 of the Self-made Participant Background Information Questionnaire



In the sixth question, "Would you say your child is interested in English?" 67% of parents indicated their child is, while 33% indicated they are not.

Figure 10.

Q7 of the Self-made Participant Background Information Questionnaire



In the seventh and last question, "Would you say that your child likes listening and singing along to songs", all parents, 100%, indicated that participants enjoy listening to songs.

5.2 Quantitative: Phonological Discrimination Test for native-speaking raters

The variables considered in data analysis were the following:

- Subject: 41 participants (20 in the Poem Group and 21 in the Song Group)
- Group: Song and Poem
- Time: Pretest and Posttest

5.2.1 Shapiro-Wilk

Because there were less than 30 participants per group, group distribution normality was checked through a descriptive statistics Shapiro-Wilk test. The results in the table below (Table 2) showed a normal distribution with no significant difference (p= > .05.) between Pretest in the Song (SongPre) and Poem (PoemPre) Groups.

Table 2.

Shapiro-Wilk Descriptive Statistics

Descriptive Statistics

	SongPre	PoemPre
Valid	21	20
Missing	0	1
Mean	25.762	22.500
Std. Deviation	3.404	4.174
Shapiro-Wilk	0.978	0.968
P-value of Shapiro-Wilk	0.886	0.709
Minimum	19.000	12.000

In light of the information from the Shapiro-Wilk test, two parametric statistics tests were applied for statistical analysis; (1) Mixed Models to test both fixed and random effects in unbalanced and missing data and (2) Repeated Measures ANOVA to compare performance between two experimental groups, and observe if there are statistically significant differences between them (if the p=< .01). The researcher ran a Post Hoc test for the Repeated Measures ANOVA for additional information. A description of the results can be seen in the following two sections.

5.2.1 Mixed Models

This test was run because of unbalanced or missing data. The Mixed Models test showed an ANOVA Summary considering all participants in the Song Group (N=21) and Poem Group (N=20). According to the summary in Table 3, there is a significant difference (p=<.001) between Time (Pretest to Posttest) and Group (Song Group and Poem Group). However, there is no statistical difference in Time*Group (p=0.481).

Table 3.

Mixed Models ANOVA Summary

ANOVA Summary

Effect	df	F	p
Time	1, 19.92	40.686	< .001
Group	1, 39.50	22.695	< .001
Time ∗ Group	1, 39.61	0.506	0.481

The following table (Table 4) and graph (Figure 11) show Estimated Marginal Means and Descriptive Plots, with a clear distinction between the Song and Poem Groups. The Rainfall Plot shows the distribution of participant perceived pronunciation accuracy scores.

Table 4.

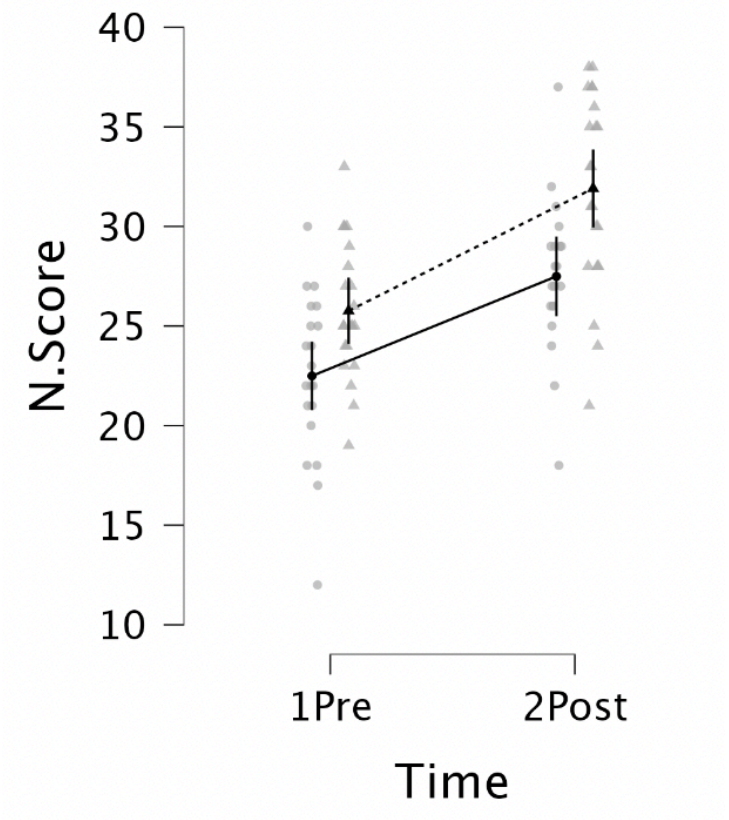
Mixed Models Estimated Marginal Means

Estimated Marginal Means

				95% CI	
Time	Group	Estimate	SE	Lower	Upper
1Pre	Poem	22.472	0.912	20.684	24.260
2Post	Poem	27.487	0.986	25.554	29.419
1Pre	Song	25.762	0.783	24.227	27.297
2Post	Song	31.905	0.954	30.034	33.775

Figure 11.

Mixed Models Descriptive Plots



5.2.3 Repeated Measures ANOVA

The Repeated Measures ANOVA was run to compare performance between two experimental groups and observe if there are statistically significant differences between them (if the p=< .01), and to observe said differences in a Post Hoc Comparison to facilitate further discussion of the results. The Repeated Measures ANOVA eliminated one of the participants to analyse data, so the N-size was reduced to N=40.

When observing Table 5, which shows the test results, there is a significant difference in the Group variable (Songs and Poems) with F(1,19) =26.660 p=< .001 and a large effect size n^2 = 0.178. Effect size indicates the mean difference between the two groups/tests, emphasising the difference between groups/tests. A high effect size may result in better practical application. As for the Time variable (Pretest and Posttest), there is also a significant difference F(1,19)=37.380 p=< .001 and a very large effect size of n^2 =0.348. The significant differences are also visually represented in a descriptive plot in Figure 12.

As described in the Mixed Models test, there is no statistical difference in Group*Time F(1,19)=0.267 p= 0.611 with a small effect size n^2 =0.002.

Table 5.

Repeated Measures ANOVA Within Subjects Effects

Repeated Measures ANOVA ▼

Within Subjects Effects ▼

Cases	Sum of Squares	df	Mean Square	F	p	η^2
Group	304.200	1	304.200	26.660	< .001	0.178
Residuals	216.800	19	11.411			
Time	594.050	1	594.050	37.380	< .001	0.348
Residuals	301.950	19	15.892			
Group ∗ Time	4.050	1	4.050	0.267	0.611	0.002
Residuals	287.950	19	15.155			

Note. Type III Sum of Squares

Figure 12.

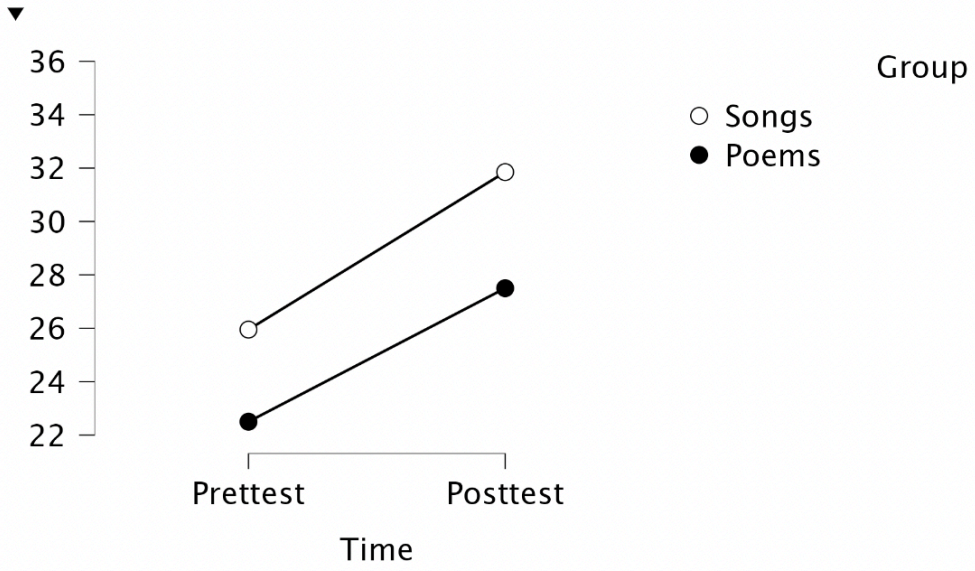
Repeated Measures ANOVA Descriptive Plots

Descriptives ▼

Descriptives

Group	Time	N	Mean	SD	SE	Coefficient of variation
Songs	Prettest	20	25.950	3.379	0.756	0.130
	Posttest	20	31.850	5.040	1.127	0.158
Poems	Prettest	20	22.500	4.174	0.933	0.186
	Posttest	20	27.500	3.873	0.866	0.141

Descriptives plots ▼



Observing the Post-Hoc Test results in Table 6, if the Confidence Intervals cross 0, or the p. value is > .01, the difference between the groups is not significant. As the table below shows, the Songs Pretest to Songs Posttest (p = <.001, 95% C.I. = -9.368, -2.432), Poems Pretest to Songs Posttest (p = <.001, 95% C.I. = -12.607, -6.093), the Poems Pretest to Poems Posttest (p = 0.001, 95% C.I. = -8.468, -1.532) and the Songs Posttest to Poems Posttest (p =0.003, 95% C.I. = 1.139, 7.561) Post Hoc Comparisons in the Group * Time Post Hoc are significant because none of the CI cross zero and p. values are all < .01. The only exceptions are the Songs Pretest compared to the Poems Pretest (p =0.024, 95% C.I. = 0.239, 6.661) and the Songs Pretest compared to the Poems Posttest (p =0.552, 95% C.I. = -4.807, 1.707), which are not significant.

Table 6.

Repeated Measures ANOVA Post Hoc Tests

Post Hoc Tests ▼

Post Hoc Comparisons - Group

			95% CI for Mean Difference				
		Mean Difference	Lower	Upper	SE	t	p_{tukey}
Songs	Poems	3.900	2.319	5.481	0.755	5.163	.

Note. Results are averaged over the levels of: Time
Note. Tukey corrected p-values are not appropriate for repeated measures post-hoc tests (Maxwell, 1980; Field, 2012).

Post Hoc Comparisons - Time ▼

			95% CI for Mean Difference				
		Mean Difference	Lower	Upper	SE	t	p_{tukey}
Prettest	Posttest	−5.450	−7.316	−3.584	0.891	−6.114	.

Note. Results are averaged over the levels of: Group
Note. Tukey corrected p-values are not appropriate for repeated measures post-hoc tests (Maxwell, 1980; Field, 2012).

Post Hoc Comparisons - Group ✻ Time

			95% CI for Mean Difference				
		Mean Difference	Lower	Upper	SE	t	p_{tukey}
Songs, Prettest	Poems, Prettest	3.450	0.239	6.661	1.153	2.993	0.024
	Songs, Posttest	−5.900	−9.368	−2.432	1.246	−4.735	< .001
	Poems, Posttest	−1.550	−4.807	1.707	1.168	−1.327	0.552
Poems, Prettest	Songs, Posttest	−9.350	−12.607	−6.093	1.168	−8.002	< .001
	Poems, Posttest	−5.000	−8.468	−1.532	1.246	−4.013	0.001
Songs, Posttest	Poems, Posttest	4.350	1.139	7.561	1.153	3.774	0.003

Note. P-value and confidence intervals adjusted for comparing a family of 6 estimates (confidence intervals corrected using the bonferroni method).

5.3 Qualitative: Teacher's Observation Rubric for Enjoyment

5.3.1 Session 1

Session 1	**Variables**	**Songs**	**Poems**
Pleasure	The children seemed to have fun during the activity.	Yes	Yes
	The children seemed to be interested in the activity.	Yes	Yes
Relatedness	The children enjoyed interacting with others during the activity.	No	Yes

	The children enjoyed interacting with the teacher during the activity.	Yes	Yes
Competence/Challenge	The children seemed confident during the activity.	Yes	Yes
	The children were able to take out the activity as their skills matched the challenges of the activity.	Yes	Yes
Improvement	The children seemed to improve their pronunciation of target words during the activity.	Yes	Yes
	The children seemed proud after the activity.	Yes	Yes
Engagement	The children blocked out most other distractions during the activity.	Yes	Yes
	The children's attention was focused on the activity.	Yes	No

In the first session, phonemes /ɪ/- /i:/ (grin, green) were taught through a song or a poem. The teacher, who is also the researcher, observed that the participants demonstrated "pleasure", "competence/challenge", "improvement" and "engagement" in the Song Group. However, the teacher had an adverse response to "the children enjoyed interacting with others during the activity" in the "relatedness" variable, whereas "the children enjoyed interacting with the teacher during the activity" was evaluated positively.

In the Poem Group, the teacher positively perceived "pleasure", "relatedness", "competence/challenge" and "improvement". The teacher found that "the children blocked out most other distractions during the activity" but negatively evaluated "the children's attention was focused on the activity".

5.3.2 Session 2

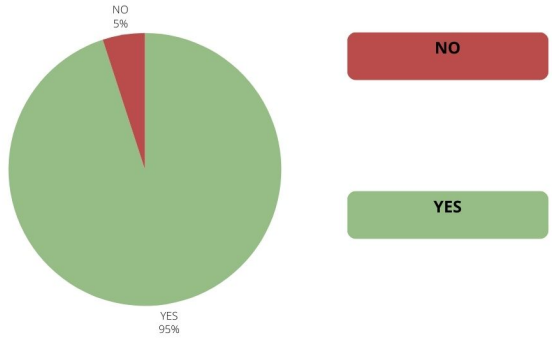
Session 2	Variables	Songs	Poems
Pleasure	The children seemed to have fun during the activity.	Yes	Yes
	The children seemed to be interested in the activity.	Yes	Yes
Relatedness	The children enjoyed interacting with others during the activity.	Yes	Yes
	The children enjoyed interacting with the teacher during the activity.	Yes	Yes
Competence/Challenge	The children seemed confident during the activity.	Yes	Yes
	The children were able to take out the activity as their skills matched the challenges of the activity.	Yes	Yes
Improvement	The children seemed to improve their pronunciation of target words during the activity.	Yes	Yes
	The children seemed proud after the activity.	Yes	Yes
Engagament	The children blocked out most other distractions during the activity.	Yes	No
	The children's attention was focused on the activity.	Yes	No

In the second session, phonemes æ/ - /ʌ/ (hat, hut) were taught through a song or a poem. The teacher, who is also the researcher, observed that the participants demonstrated "pleasure", "relatedness", "competence/challenge", "improvement" and "engagement" in the Song Group.

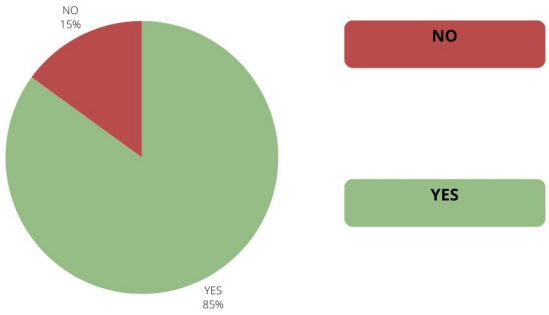
In the Poem Group, the teacher positively perceived "pleasure", "relatedness", "competence/challenge" and "improvement". The teacher negatively evaluated "the children

blocked out most other distractions during the activity" and "the children's attention was focused on the activity" in the "engagement" variable.

5.2.3 Overall Teacher/Researcher Perception of Enjoyment



SONG GROUP OVERALL TEACHER/RESEARCHER PERCEPTION OF ENJOYMENT

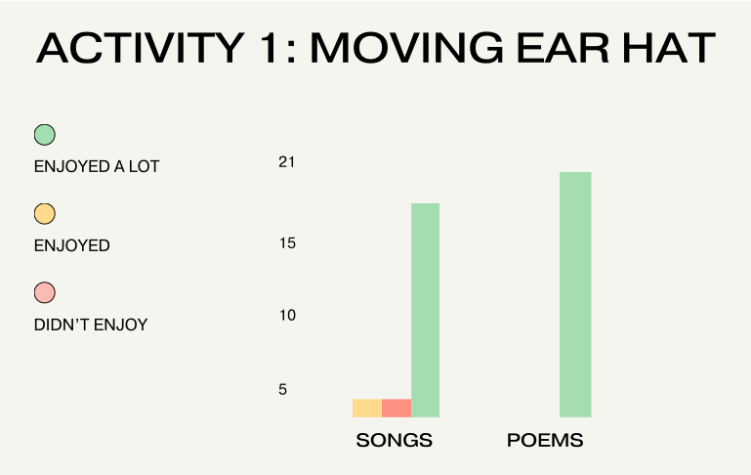


POEM GROUP OVERALL TEACHER/RESEARCHER PERCEPTION OF ENJOYMENT

Overall, the teacher/researcher answered "Yes" to 19 out of 20 (95%) and "No" to 1 out of 20 (5%) to variables that determine student enjoyment in the Song Group, compared to 17 out of 20 (85%) "Yes" answers and 3 out of 20 (15%) "No" answers in the Poem Group.

5.3 Qualitative: Participant Enjoyment Questionnaires

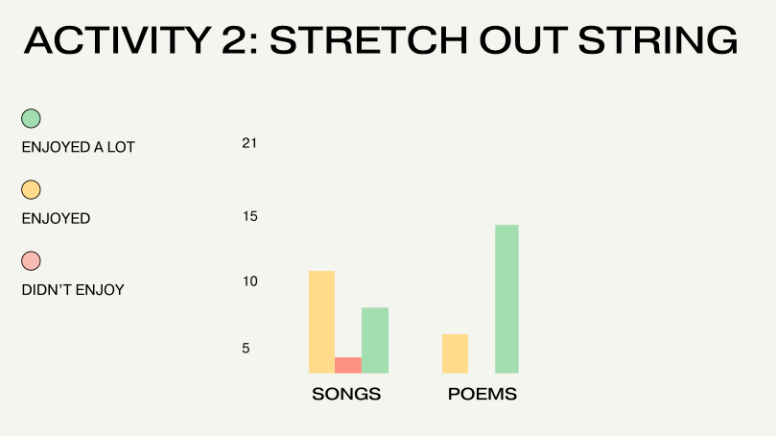
5.3.3 Activity 1: Moving Ear Hat



In the Song Group, 17 participants out of 21 (81%) indicated they "enjoyed the activity a lot," compared to 20 participants out of 20 (100%) in the Poem Group. In the Song Group, 2

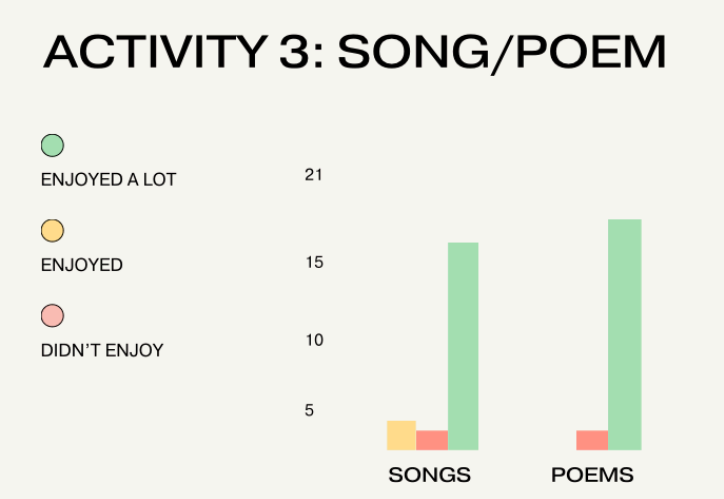
participants (9.5%) indicated they “enjoyed” the activity. Furthermore, 2 participants (9.5%) in the Song Group indicated they “didn’t enjoy” the Moving Ear Hat Phonemic Awareness activity.

5.3.4 Activity 2: Stretch Out String



In the Song Group, 8 participants out of 21 (38.1%) indicated they “enjoyed the activity a lot,” compared to 14 participants out of 20 (70%) in the Poem Group. In the Song Group, over half of the participants, 11 participants (52.4%) indicated they “enjoyed” the activity, whereas in the Poem Group, 6 participants (30%) chose the “enjoyed” option. Finally, in the Song Group, 2 participants indicated they “didn’t enjoy” the Stretch Out String Phonemic Awareness activity, and none chose this option in the Poem Group.

5.3.3 Activity 3: Song/Poem



In the Song Group, 16 participants out of 21 (76.2%) indicated they "enjoyed the activity a lot," compared to 18 participants out of 20 (90%) in the Poem Group. In the Song Group, 3 participants (14.3%) indicated they "enjoyed" the activity, whereas in the Poem Group, none of the participants chose the "enjoyed" option. To conclude, both in the Song and Poem Groups, 2 participants indicated they "didn't enjoy" the Song/Poem activity.

6. Discussion

6.1 Introduction

In this discussion section, the researcher aims to triangulate: (1) "the question", which encompasses the Introduction, Theoretical Background, and Literature Review; (2) "the answer", composed of the Methodology and the Results, and (3)" the research questions". For this reason, the section is divided into the four research questions. For each question, the corresponding hypothesis is either confirmed, meaning it is provisionally supported, or it is disconfirmed or provisionally not supported.

6.2 Research question 1

Is pronouncing words with target phonemes perceived by native speakers as more accurate when children are exposed to target sounds through songs?

According to test results, the difference between the Song Group Pretest and the Song Group Posttest is statistically significant. Therefore, the alternative hypothesis Ha 1 = "Native speaker perceived accuracy in pronouncing words with target phonemes improves when children are exposed to target sounds through songs" is provisionally confirmed. From this information, the researcher concludes that the treatment, using songs as a tool to teach target phonemes, worked in this context with Spanish/Catalan preschoolers.

One major finding was that the results revealed a significant difference between the Poem Group Pretest and the Poem Group Posttest, meaning that the accuracy in the pronunciation of target phonemes also improved in this group.

Treatment effectiveness in both experimental groups could be due to several factors described in the following paragraphs.

Firstly, information from the questions related to the English language in the "Participant Background Information Questionnaire" indicated that 67% of participants are interested in English and 37% of children attend English extra-curriculars. Hence, it is possible that they benefited from both songs and poems due to motivational factors and because of the quality and quantity of input outside of school besides the treatment itself.

Secondly, the fact that most participants in the study are preliterate, and it has been shown that children are more sensitive to a new language's sounds and rhythms (Pinter, 2017), may have also contributed to the positive results.

Thirdly, including PA activities combined with music in the study by Degé and Schwarzer (2011), proved beneficial only for students in the experimental group. However, in this study, songs were presented as part of both experimental groups' pronunciation sessions, not as a separate activity, and may have influenced positive results. The Poem Group may have also improved because the pre-activities focused on PA, not musical activities, as seen in Saldiraner and Cinkara (2021).

Therefore, drawing from the study's results, it can be said that including PA activities suggested by Málková and Caravolas (2016), Carruth and Bustos (2019), and Olinger (2023), and adapted to the study's particular context by the researcher may have positively contributed to the pronunciation accuracy results in both experimental groups. Furthermore, explicit instruction in the form of PA activities before more communicative activities like singing songs or reciting poems, as recommended by Pennington (2021), may have also positively influenced the participant's performance of target vowel sounds.

Engel's (2020) approach to teaching Phonological Awareness with and without words showed that songs with words did not improve children's Phonological Awareness. Contrary to this author's study, the participants in the current study may have had better results because they are older students between the ages of 5 and 6 with a slightly wider vocabulary. Moreover, the sample is larger (N=41).

As for the implications of the type of measurement instrument, Shehadeh and Farrah (2016) conducted an oral discrimination test for young students to complete. Building on Shehadeh

and Farrah's (2016) idea to build this discrimination test including the Pretest and Posttest audio recordings for adult native speakers from different English-speaking countries to rate, instead of having participants complete the test, may have increased the study's reliability.

The choice of target sounds and words may have also influenced the study's effectiveness. As in Salwa Aurelita's (2023) study, the songs used in this study aimed to teach a particular set of sounds, in this case, vowel sounds, some of which are not in the Spanish/Catalan sound system. Taking the author's suggestion, the researcher in this study also included words in the pre and Posttest which were not included in the songs but worked on the same target phonemes in minimal pair words. The effectiveness of the study may suggest that creating songs for a particular set of sounds may be more effective than targeting total words or sentences, especially for small children who are beginning to learn EFL. Moreover, even though the study by Yusmita and Angraini (2017) implied that students had better results when pronouncing words they understood or had worked on in class, the current study showed that there was improvement even though some words presented in the pre and Posttest were not presented in class.

To conclude, inspired by Blomquist's (2019) and Palupi's (2022) successful results using movement and TPR to teach poems, in the case of Blomquist (2019) and songs, in the case of Palupi (2022), the researcher in the current study included movement in all songs and poems, which could also have been a determining factor in the study's favourable outcomes.

6.3 Research question 2

Is pronouncing words with target phonemes perceived by native speakers as more accurate when children are exposed to target sounds through songs compared to poems?

The comparison of songs and poems as tools to teach pronunciation of target phonemes within words was considered to argue the best way to introduce this part of EFL learning in the Spanish/Catalan preschool classroom, as the Primary Curriculum suggests including these two types of activities for pronunciation practice. According to the native speaker rater results, the alternative hypothesis Ha 2 = "Native speaker perceived accuracy in pronouncing words with target phonemes improves when children are exposed to target sounds through songs compared to poems" is provisionally confirmed. From this information, the researcher concludes that the

treatment, using songs as a tool to teach target phonemes, worked better than teaching through poems in this context with Spanish/Catalan preschoolers.

In previous literature, Farrah and Al-Bakri's (2022) study may have worked because the control group was not presented with communicative activities such as singing songs, so literary texts chosen may have proved beneficial for the EFL students in that specific context. Although the Poem Group's Pretest and Posttest showed a significant difference in the current study, the Song Group still outperformed the Poem Group.

The current study used TPR in both the poem and Song Groups to enhance the benefits of using movement to retain Song/Poem text in the participant's memory as Blomquist (2019) recommended in his study of the Effect of Teacher-Authored Poetry on the Pronunciation of the Voiced Dental using TPR and guided practice of the poem taught, which showed positive effects on remembering the poem and its sounds. In the current study, all these applications also proved beneficial, but the Song Group still surpassed the Poem Group's results in target phoneme pronunciation accuracy according to native speaker raters. This could be due to music being helpful for children to develop auditory perception and phonological memory (Fonseca-Mora et al., 2011) and/or connected to Murphy's (1990) "Song Stuck in My Head" phenomenon, which states that songs can be retained in the memory without listeners understanding the meaning of the lyrics; they retain the sounds of words, which can pass through their thoughts multiple times a day, aiding phonological memory.

To conclude, although Meisa et al. (2013) stated that songs and poems both have distinct features such as rhyme, rhythm, and pitch, which could be a further indicator of why the Poem Group in this current study also improved, she also concluded that using songs is a more effective technique in teaching pronunciation than poems. The current study further confirms her results.

6.4 Research question 3

Does using songs in pronunciation contribute to learner enjoyment according to student and teacher perception?

Saldiraner and Cinkara (2021) demonstrated high student participation in their experimental group through song activities. In addition, Salwa Aurelita (2023) proposed that students' and teachers' perceptions of enjoyment in pronunciation sessions further confirm enjoyment when using songs to teach pronunciation. In the current study, the results drawn from activity enjoyment questionnaires, answered by preschooler participants aged 5 to 6 with previous experience in evaluating activity enjoyment and performance, show that the alternative hypothesis Ha 3 = "Using songs in pronunciation teaching contributes to learner enjoyment according to student and teacher perception" is provisionally confirmed. Additionally, because the enjoyment variable was measured for three activities throughout the pronunciation session, positive results for using songs may be due to the sum of using both PA tasks and songs in the same lesson. Hence, the PA activities suggested by Málková and Caravolas (2016), Carruth and Bustos (2019), and Olinger (2023) and adapted to the study's particular context by the researcher may have positively contributed to learner enjoyment according to student and teacher perception in the Song Group.

The previous argument can be made because more than 50% (above the second quartile or Q2) of participants in the Song Group chose the option "enjoyed the activity a lot" or "enjoyed the activity" in the two PA activities assessed. For instance, in the Moving Ear Hat activity, 17 participants out of 21 (81%) indicated they "enjoyed the activity a lot", which indicates a high level of enjoyment for this type of task. However, in the Stretch Out String activity, 11 participants (52.4%) indicated they "enjoyed" the activity, suggesting that they didn't enjoy it as much, but the mean is still high enough to stipulate that the children enjoyed it. The reduction of enjoyment of the Stretch Out String may be due to a lack of meaningfulness and context, which is highly recommended by Pennington (2021) in pronunciation sessions. Perhaps if the teacher had made up a story about the string or had students say words they already knew with the target phoneme, they would have related more to the exercise. In addition, it may be that, contrary to some empirical research findings described by Pennington (2021), some students may benefit more from a top-down approach, where songs are presented as a communicative task before explicitly teaching target phonemes, rather than a bottom-up approach described in the Methodology section, and further detailed in the lesson plan (Appendix B).

The enjoyment results from the students' perspective in Activity 3: Songs/Poems showed that 16 participants out of 21 (76.2%) chose the option "enjoyed the activity a lot". The enjoyment of the Song activity may have been increased by the TPR and role play accompanying it, as

well the use of music, which has been shown to reduce students' affective filter and calm students so they feel motivated toward language learning (Engh, 2013). Motivation was observed by the teacher/researcher throughout the session. Students were especially eager to participate in acting out the song as in Saldiraner and Cinkara's (2021) study. Moreover, the teacher/researcher also observed positive results in all 5 enjoyment variables in the observation rubric for the Song Group: "pleasure", "relatedness", "competence/challenge", "improvement" and "engagement", with a slightly negative remark on "relatedness" in the first session due to difficulty in sharing with classmates, which can be typical at the student's young age, but was rapidly corrected in the second pronunciation session.

6.5 Research question 4

Does using songs in pronunciation teaching contribute to learner enjoyment according to student and teacher perception compared to using poems?

It is difficult to answer whether one tool enhanced enjoyment more than another. A recent study by Farrah and Al-Bakri (2022) concluded that both teachers and students showed a positive attitude towards using poetry for English pronunciation. However, in the current study there is a contrast between students' perception and the teacher/researcher's perception of enjoyment. Overall, it cannot be said that songs had better results than poems; therefore, the alternative hypothesis Ha 4 = "Using songs in pronunciation teaching contributes more to learner enjoyment than poems according to student and teacher perception" is provisionally partially confirmed by the teacher's perspective but not by the students perspective.

In the Poem Group, 18 participants out of 20 (90%) indicated that they "enjoyed the Poem activity a lot", compared to the 16 participants out of 21 (76.2%) in the Song Group. It can be said that, from the student's perspective, the Poem Group enjoyed the Poem Activity more than the Song Group enjoyed the Song Activity. Nevertheless, the teacher/researcher observations answered "Yes" to 19 out of 20 (95%) and "No" to 1 out of 20 (5%) variables that determine student enjoyment in the Song Group, compared to 17 out of 20 (85%) "Yes" answers and 3 out of 20 (15%) "No" answers in the Poem Group. Even though there is no major difference, the reasons for provisionally partially confirming this hypothesis are described in the following paragraphs.

Firstly, in the Poem Group's first session, as reported in the observation rubric for "engagement", students were getting distracted by material such as the string or weren't paying full attention to the teacher or the task. Moreover, the teacher observed some attention behavioural issues in the second session of the Poem Group that may indicate that students weren't fully engaged in the Poem Activity, but because they are small children and they had fun in the session overall, they noted that they "enjoyed the activity a lot".

Because students at this school have two hours of English a week, they are used to many types of activities and expect novelty in each session. Behavioural issues in the Poem Group may have been due to a lack of novelty, which allows distraction. In contrast, it may also be that including a song instead of a poem makes the students listen attentively because there is music, and they must follow the actions. In the poem, they must wait for the teacher to recite out loud and it is easier to get distracted by surroundings or get frustrated because they don't understand what the teacher is saying.

One last thing to consider that may have affected the overall enjoyment of the Song Group compared to the Poem Group is that the participants are preschoolers, and although the school thoroughly insists on self-evaluation after most activities, they are still learning to self-evaluate. Furthermore, all sessions were taken out during the last hour of class in the morning, from 12h to 13h, when students are usually the most tired.

Finally, there was an observed improvement in the Song Group regarding the "relatedness" variable. The researcher believed it may have been affected by the teacher's understanding of turn-taking rules and classmate boundaries, clearly stated at the beginning of the second session. In addition, the second session included more props, favouring a more significant number of student participation; therefore, students may have felt less excluded from tasks.

7. Conclusions

7.1 Purpose of the Study

The study divided Spanish/Catalan preschoolers (N=41) into two experimental groups, a Song Group (N=21), and a Poem Group (N=20), to measure native speaker perceived **pronunciation accuracy** and student and teacher perception of **enjoyment** in two pronunciation-focused

sessions. Results showed that native speaker raters perceived improvement in pronunciation accuracy when children were exposed to target vowel sounds through Songs. A major finding in this study was that using Poems also increased perceived accuracy. However, participants in the Song Group outperformed the Poem Group. As for student perception of pronunciation session enjoyment, using Songs in pronunciation teaching contributed to learner enjoyment, but there was no significant difference between groups. Nevertheless, teacher perception of enjoyment indicated higher "engagement" levels in the Song Group than in the Poem Group, indicating that students in the Song Group blocked out most other distractions and focused attention on the activities.

7.2 Limitations

Working with preschoolers can be a challenge because of their young age, but their curious and playful nature can make teaching something unexpected to them, like pronunciation, a learning experience for both the students and the teacher. That being said, there are some noteworthy issues concerning the study.

The researcher in this study chose to take it out during their master's degree internship at the school, therefore there was a time constraint of two months to: (1) collect participants' parental Consent Forms (Appendix H), (2) have participant's parents fill in a Microsoft Forms pre-questionnaire for background information about the participant's age, English Level, and Musical Experience (Appendix C), (3) Record student utterances to measure pronunciation accuracy as a Pretest with the researcher's iPhone 13 microphone saying 2 pairs of minimal pair words for each sound: /ɪ/- /i:/ (grin/green and fit/feet) and /æ/ - /ʌ/ (hat/hut and cat/cut). (4) Take out two pronunciation sessions per experimental group (Song Group and Poem Group) in the MusEnglish class, (5) Record student utterances to measure pronunciation accuracy as a Posttest in the same conditions as the Pretest.

As a result, this time constraint to teach and learn target phonemes may have prevented higher perceived pronunciation accuracy ratings because both quality and quantity of input are tied to successful language learning. Additionally, the convenience sample may have affected the results because there may have been differences between groups in terms of English Level and Musical Experience.

Another limitation was that the Background Information Questionnaire was answered by 42 parents who had signed their child's Consent Form to participate in the study. However, only 41 participants were included in the analysis because one in the Poem Group did not attend one of the pronunciation sessions and could not be accounted for in the Pretest and Posttest design. Some parents did not fill out the Consent Forms to participate in the study, so the sample size was reduced by a few students.

Although most of the students were preliterate, some students in both the Song and Poem Group had started decoding sounds. Therefore, they began applying Spanish/Catalan sounds to English words. Darcy et al. (2015) state that there should be a complete understanding of the L2 phonological system to reduce L1 influence, but these students had not been exposed to the English vowel sounds enough to prevent L1 impact on their pronunciation accuracy.

Guidance is a crucial part of teaching English at such a young age. The researcher strived to collect unbiased utterances by presenting all 8 words and recording whatever sound the participant uttered. However, in some cases, the students would stay silent because they were shy or needed help remembering the vocabulary despite visual aids. In these cases, if the student did not say the word on the flashcard automatically while recording, the researcher said it first, and then the student repeated it.

7.3 Recommendations

Results provisionally confirm the effectiveness of using songs as a tool to teach pronunciation and that students enjoy learning pronunciation through songs. Nevertheless, the researcher has some recommendations to offer if the study is replicated or continued in the future:

- As mentioned in the discussion, make the PA activities meaningful to the students so that their attention is focused on the activity.
- Offer more opportunities for students to interact with props in all activities so that no students feel excluded from tasks, which may affect their enjoyment and learning process.
- To facilitate accuracy in production, try to find similarities between the L1 pronunciation and the L2 pronunciation.
- Include movement and role-playing when teaching the song for better retention and prevention of behavioural issues.

- Verbal positive reinforcement should be used throughout the lesson, and stickers/stamps should be offered as an incentive for good behaviour.
- Because of the growing perception of English as a lingua franca (Couper, 2017), collect responses of the Pronunciation Accuracy Posttest from native-speaker raters with different accents to measure pronunciation accuracy in terms of intelligibility over nativelikeness.
- AidaForms as an instrument for data collection has been helpful, but there is an upgrade option to have all correct answers at the end instead of having to go through each question manually and see if the answers the native speakers give are correct or incorrect. It may be more costly, but if time is an issue, it is better to take advantage of an upgrade.

7.4 Potential for future work

An extension of this study could be to analyse each target word to see which vowel sounds are most difficult for students to pronounce. Hence, this information should be included in the EFL curriculum as guidance for language teachers in Catalonia.

Another suggestion for future research would be to choose another set of complex vowel sounds or consonant sounds for Spanish/Catalan students to pronounce and apply songs as a tool to teach them in a preschool classroom setting.

Lastly, the same study as the one presented in this thesis could be done considering the limitations and recommendations given, for instance, with more pronunciation sessions and a randomised sample not chosen by convenience.

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9. Appendices

APPENDIX A: Songs/Poems

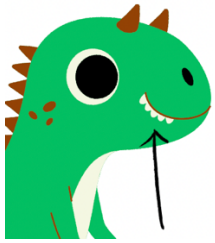
1. Song/Poem 1: The Green Dinosaur

The Green Dinosaur /ɪ/ - /i:/

Is that something **green**?

What animal is this?

I can see it **grin**!



Is that something **green**?

What animal is this?

Now it's trying to eat me oh no eek eek!

Big **green** dinosaur!

Don't **grin** at me dinosaur!

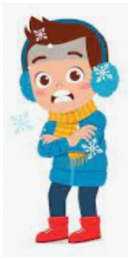
HAHAHAHAH

2. Song/Poem 2: Dino's Hat

Dino's Hat /æ/ - /ʌ/

Dino is in his **hut**, it's cold outside, what will Dino wear today?

Good morning! It’s cold!



In his **hut**, Dino sat,

He will wear a **hat**! X4

HUUUUUT

HAAAAAT x2

In his **hut**, Dino sat,

He will wear a scarf!

In his **hut**, Dino sat,

He will wear a scarf!

He will wear a scarf!

He will wear a

He will wear a

He will wear a **hat**, scarf and two gloves!

APPENDIX B: Lesson Plan

Self- made Lesson Plan for Sessions 1 (Green and Grin) and 2 (Hat and Hut). For Session 2, replace words in the table with HAT and HUT.

Phonemic Awareness Segmenting and Blending activities for vowel sounds /i:/ - /I/ and /æ/ - /ʌ/ suggestions from Málková and Caravolas (2016), Carruth and Bustos (2019) and Olinger (2023).

Stage Name	**Timing (50 min.)**	**Interaction pattern**	**Teacher's procedure**	**Students will…**	**Materials**
Introduction	4 min	T-S, S-T	Welcome the class. Ask how they are. Ask about the weather with a chant.	Be ready to start the English class.	
Presentation	5 min	SS, T-S	For Session 1, sing and dance the "We are the dinosaurs" song by The Laurie Berkner Band. Ask students what the song is about to remind them of the topic: Dinosaurs. For Session 2, sing and act out "The Green Dinosaur" song from the previous session. Remind students of the difference in pronunciation between the words "Green" and "Grin" and say that they	Present the session's topic.	"We are the dinosaurs" song by The Laurie Berkner Band

			are going to learn how to say two new words.		
PA Activity 1: Hop to the Phoneme	5 min	T-S, S-T	Show dinosaur flashcards for the word “Green”. Have students repeat the segmented word G-R-E-E-N, then, represent the segmentation with movement by hopping to each phoneme. Show dinosaur flashcards for the word “Grin”. Have students repeat the segmented word G-R-I-N, then, represent the segmentation with movement by hopping to each phoneme. Ask how many sounds are in each word.	Segment target words with sound and movement. Determine the number of sounds they can hear in each word.	Flashcards of target words with target phonemes

PA Activity 2: Moving Ear Hat	5 min	T-S, S	Say the segmented word G-R-EE-N. Get 5 students to come to the front and pull the strings on a Moving Ear Hat when they hear the phoneme /i:/ inside the word. Say the segmented word G-R-I-N. Get 5 students to come to the front and pull the strings on a Moving Ear Hat when they hear the phoneme /I/ inside the word. All students will be chosen at random with the school's random name app on the English teacher's Ipad.	Recognise target phoneme by presenting it in minimal pair words.	Ipad Dinosaur hat

PA Activity 3: Stretch Out String	10 min.	T-S, S-T	Say the segmented word G-R-EE-N and then blend it out and stretch it out: “grrrrreeeeen” while exemplifying using a elastic band. Each child will be given an elastic band and will use it when stretching out the word after the teacher’s example. They will stretch it out all together and individually. The teacher says the stretched out word “grrrrriiiiiin” while exemplifying using an elastic band. Each child will be given an elastic band and will use it when stretching out the word after the teacher’s example. They will stretch it out all together and individually. Ask the children if the words sound the same.	Blend words and stretching it out to emphasise phoneme pronunciation. Exemplify it through movement.	Elastic bands

Checking understanding for the PA activities	5 min.	T-S, S-T	Teacher (in jingle intonation and showing the flashcard): So it starts with an “GR” and ends with “EEN”, what does it say? Child: “GREEN!” Teacher (in jingle intonation and showing the flashcard): So, it starts with an “GR” and ends with “IN”, what does it say? Child: “GRIN!” Ask the children if the words sound the same.	Blend target words. Conclude that the two words sound different.	Flashcards of target words with target phonemes

Input: Listen to the Song/Poem + TPR	10 min.	T-S, S-T	The teacher will put on the song/ Read out the poem “The Green Dinosaur” (Session 1) or “Dino’s Hat” (Session 2). The teacher will ask the students if they heard the words “green” and “grin” in the Song/Poem. The teacher will say the song lyrics/poems out loud and use TPR to teach each sentence in the song. For example, in the sentence “Is that something green?”, the students will point.	Recognise target words within a Song/Poem. Act out Song/Poem movements to reinforce understanding and promote enjoyment.	“The Green Dinosaur” (Session 1) or “Dino’s Hat” (Session 2).
Output 1: Act out the Song/Poem	2 min.	SS	Children listen to the Song/Poem and act out the lyrics with the movements.	Listen actively and act out Song/Poem movements to reinforce understanding and promote enjoyment.	“The Green Dinosaur” (Session 1) or “Dino’s Hat” (Session 2).

Output 2: Act out and sing/recite the Song/Poem	2 min.	SS	Children listen to the song/ poem and try to say the words “green” and “grin” when singing/reciting and acting put the movements. If they can, they can try and sing/ recite the full lyrics. Ask some students individually to say the words “green” and “grin” while singing/reciting. They can role play the characters in the song to make it easier to integrate into the song.	Listen actively and utter target words with target phonemes.	“The Green Dinosaur” (Session 1) or “Dino’s Hat” (Session 2).
Cooler	2 min.	SS	Put on relaxing music and have children pretend they are baby dinosaurs that are going to sleep. The teacher will tap on their heads to “wake them up” and they will get into a line to receive positive reinforcement stickers/stamps.	Wind down for the end of the class.	Relaxing music Dinosaur Stickers / Stamps

APPENDIX C: Self- made Pre-questionnaire for background information for parents to fill in Catalan and English

Link to Questionnaire

PRONUNCIACIÓ DE L'ANGLÈS A TRAVÉS DE CANÇONS / ENGLISH PRONUNCIATION THROUGH SONGS

1. Edat del vostre fill/a - Your child's age

Enter your answer

2. Actualment el vostre fill/a cursa extraescolars d'anglès fora d'horari escolar? / Does your child participate in extra-curricular English activities?

- ◯ Si / Yes
- ◯ No

3. Actualment el vostre fill/a veu la televisió, veu vídeos o escolta cançons en anglès fora d'horari escolar? /Does your child watch television, videos o listens to songs in English outside of school?

- ◯ Molt sovint / Very often
- ◯ Sovint / Often
- ◯ A vegades / Sometimes
- ◯ Gairebé mai / Hardly ever
- ◯ Mai / Never

4. Actualment el vostre fill/a cursa extraescolars de música, cant o instrument fora d'horari escolar? / Does your child participate in extra-curricular lessons related to music, singing or instrument?

- ◯ Si / Yes
- ◯ No

5. El vostre fill/a sol escoltar i cantar cançons fora d'horari escolar? / Does your child listen and sing along to songs outside of school?

- ◯ Molt sovint / Very often
- ◯ Sovint / Often
- ◯ A vegades / Sometimes
- ◯ Gairebé mai / Hardly ever
- ◯ Mai / Never

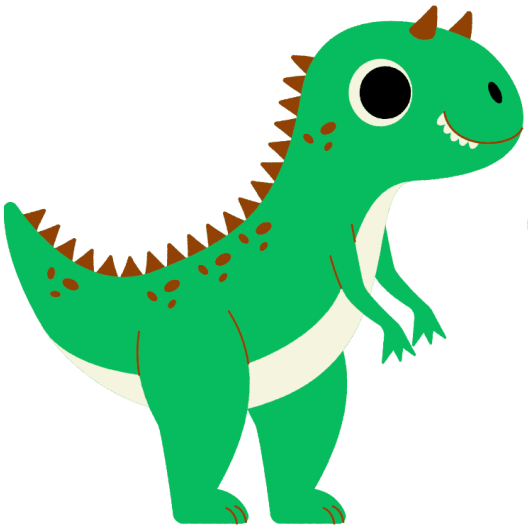
6. Dirieu que el vostre fill/a s'interessa per la llengua anglesa? / Would you say that your child is interested in English?

- ◯ Si / Yes
- ◯ No

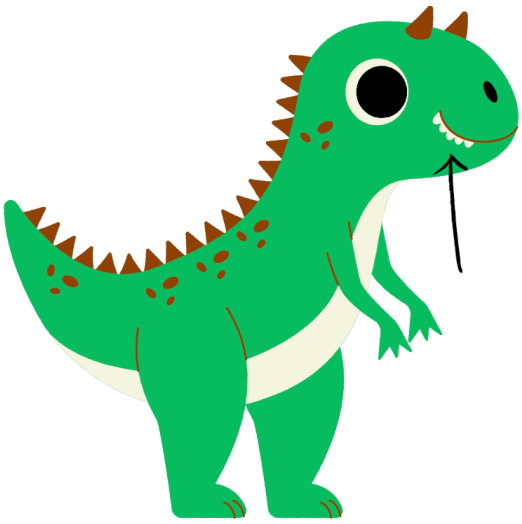
7. Dirieu que el vostre fill/a li agrada escoltar i cantar cançons? / Would you say that your child likes listening and singing along to songs?

- ◯ Si / Yes
- ◯ No

APPENDIX D: Flashcards of target words with target phonemes



Green



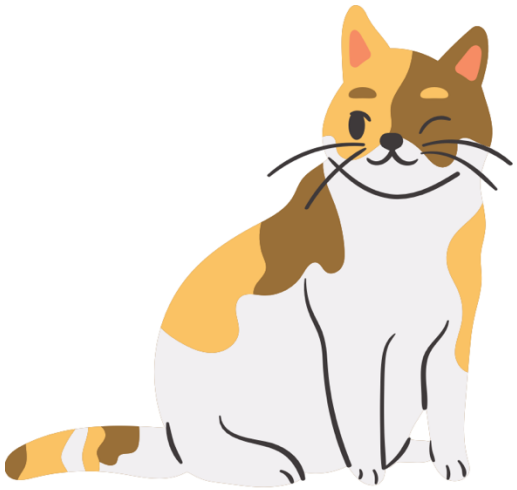
Grin

Hat

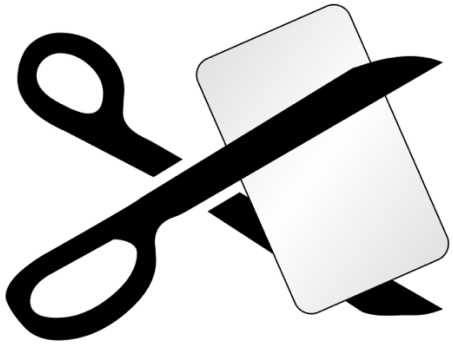
Hut

Fit

Feet



Cat



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APPENDIX E: Self-made Enjoyment Post-questionnaire for students

Group: EG1 Songs

Q1:

Moving Ear Hat 			

Q2:

Stretch Out String 			

Q3:

Song/Poem 			

Group: EG2 Poems

Q1:

Moving Ear Hat 			

Q2:

Stretch Out String 			

Q3:

Song/Poem 			

APPENDIX F: Self-made Teacher observation rubric to measure enjoyment

Based on the 5-Factor solution proposed by Davidson (2018), the factors to measure enjoyment are: Pleasure, Relatedness, Competence/Challenge, Improvement and Engagement. Some statements from Davidson (2018) for each factor are used as variables in this rubric to observe enjoyment from the teacher's perspective. The items were evaluated in a dichotomous scale of YES/NO, with a space for further observations at the end of each session.

<table>
<tr><td colspan="5">TEACHER OBSERVATION RUBRIC</td></tr>
<tr><td>Session: 1</td><td colspan="2">Group: EG1 Songs</td><td colspan="2">Observation by: Maria Chapman</td><td>Notes</td></tr>
<tr><td>Pleasure</td><td colspan="2">The children seemed to have fun during the activity.</td><td colspan="2">The children seemed to be interested in the activity.</td><td rowspan="8">Pleasure
The children were smiling and laughing during all the activities, especially when using the Moving Ear Hat to distinguish phonemes.
Relatedness
I would say that some of the children got a bit upset when another student got to take part in an activity instead of them. Not all, but some didn't enjoy having to share roles with their peers, particularly when acting out the "Green Dinosaur" song where two children had to be the "dinosaur" and the "pray". However, they were very happy to follow the teacher's instructions and answer questions, and asked to listen to the song again when I told them that it was my voice.
Competence/Challenge
Because the instructions given by the teacher were clear, and I mentioned that it is okay to make mistakes but to try anyway, almost all students answered questions about phoneme differences in chorus confidently. If they made a mistake, I would elicit the response and they automatically corrected themselves.
When it comes to challenge, the jingle activity was the most difficult, because they had to blend a</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Relatedness</td><td colspan="2">The children enjoyed interacting with others during the activity.</td><td colspan="2">The children enjoyed interacting with the teacher during the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Competence/Challenge</td><td colspan="2">The children seemed confident during the activity.</td><td colspan="2">The children were able to take out the activity as their skills matched the challenges of the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>Improvement</td><td colspan="2">The children seemed to improve their pronunciation of target words during the activity.</td><td colspan="2">The children seemed proud after the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
</table>

Engagement	The children blocked out most other distractions during the activity.		The children's attention was focused on the activity.		segmented word. The typically higher-level students answered correctly, but others said "green" instead of "grin" after the jingle: "so it starts with "GR" and it ends with "IN", what does it say? So, to help them out, I focused my intonation on the phoneme by repeating "IN" a few times. After this adaptation, they all answered correctly. One of the students even said "I said "IN", not "EEN". **Improvement** After repeating the song and the actions, I asked students one more time to say the words "Green" and "Grin" and there was a clear distinction between the two. However, because I did it in chorus, some students may not have improved. Therefore, for Session 1 in EG1, I will have some students repeat the word individually while singing/reciting. **Engagement** From previous experience in the internship, this group focuses well and doesn't get easily distracted during activities in the English class. Therefore, I wasn't surprised to see that they were focused on the task. I had to ask for attention from two students who were playing with the student in the dinosaur had before during the song acting out, but they were playing dinosaurs so it wasn't completely off-task. In addition, I made sure to prepare many different activities with no breaks in between, so they didn't have time to be distracted. Furthermore, before starting the session explained that if they were on their best behaviour I would give them a dinosaur sticker at the end of class, so if I had to call for attention, I would remind them of the stickers and they would immediately refocus on the task.
	YES	NO	YES	NO	

TEACHER OBSERVATION RUBRIC

Session: 1	Group: EG2 Poems		Observation by: Maria Chapman		Notes
Pleasure	The children seemed to have fun during the activity.		The children seemed to be interested in the activity.		**Pleasure** The children were smiling and laughing during all the activities, especially when using the Moving Ear Hat to distinguish phonemes. **Relatedness** In comparison with the EG1, this group did not have a problem with sharing and taking turns to take part in the activities. They were very happy to role play being the "dinosaur" and the "scared child" in the poem reciting. Only one of the students, who has attention difficulties, was impatient to participate in all activities and got upset when other children got chosen. **Competence/Challenge** Because the instructions given by the teacher were clear, and I mentioned that it is okay to make mistakes but to try anyway, almost all students answered questions about phoneme differences in chorus confidently. If they made a mistake, I would elicit the response and they automatically corrected themselves. When it comes to challenge, I was very impressed by the way the students repeated whole sentences in the poem, not only target words. They seemed to easily remember sentences, so the challenge was to get them to say the sentences without my help. For this reason, For Task 2: "Act out and recite/sing the Song/Poem" I chose two high level students to act as the "teachers" in front of the class when learning the poem. **Improvement** After all the Phonemic Awareness activities, I did the distinction of "Green" and "Grin" in chorus
	YES	NO	YES	NO	
Relatedness	The children enjoyed interacting with others during the activity.		The children enjoyed interacting with the teacher during the activity.		
	YES	NO	YES	NO	
Competence/Challenge	The children seemed confident during the activity.		The children were able to take out the activity as their skills matched the challenges of the activity.		
	YES	NO	NO	YES	
Improvement	The children seemed to improve their pronunciation of target words during the activity.		The children seemed proud after the activity.		
	YES	NO	YES	NO	
Engagement	The children blocked out most other distractions during the activity.		The children's attention was focused on the activity.		

					and used the strings to exemplify as well, I believe this worked better than the jingle. **Engagement** From previous experience in the internship, this group gets distracted easily during activities in the English class. Therefore, I wasn't surprised to see that some students were playing with the strings in the stretching out words activity and I had to ask them to use it properly. I made sure to prepare many different activities with no breaks in between, so they didn't have time to be distracted. Furthermore, before starting the session explained that if they were on their best behaviour I would give them a dinosaur sticker at the end of class, so if I had to call for attention, I would remind them of the stickers, and they would immediately refocus on the task.
	YES	NO	YES	NO	

TEACHER OBSERVATION RUBRIC					
Session: 2	**Group: EG1 Songs**		**Observation by: Maria Chapman**		**Notes**
Pleasure	The children seemed to have fun during the activity.		The children seemed to be interested in the activity.		**Pleasure** The children were smiling and laughing during all the activities. They seemed very happy to repeat all activities form Session 1, but to work on two new sounds. **Relatedness** Relatedness improved in this second session, because during the Dino's Hat song, the students encouraged each other to put on the hat, scarf, and gloves, and reminded them to do so when acting out the song. I believe this is because the props were funny, so they enjoyed seeing the classmates put them on. **Competence/Challenge**
	YES	NO	YES	NO	
Relatedness	The children enjoyed interacting with others during the activity.		The children enjoyed interacting with the teacher during the activity.		
	YES	NO	YES	NO	
Competence/Challenge	The children seemed confident during the activity.		The children were able to take out the activity as their skills matched the		

<table>
<tr><td></td><td colspan="2"></td><td colspan="2">challenges of the activity.</td><td rowspan="6">Because the instructions given by the teacher were clear, and I mentioned that it is okay to make mistakes but to try anyway, almost all students answered questions about phoneme differences in chorus confidently. If they made a mistake, I would elicit the response and they automatically corrected themselves.
They had difficulties when they had to distinguish the minimal pair words “hat” and “hut” in the Moving Ear Hat activity. Therefore, I tried to fit in the vowel sound /ʌ/ into a Catalan word which has a similar vowel sound. This seemed to work very well, and they were able to correctly distinguish sounds with the Moving Ear Hat.
Improvement
Instead of the jingle, I used the flashcards to work on blending the words “Hut” and “Hat” with the correct pronunciation. After that, I asked if the words were different or the same, and there was a unanimous correct answer. It seems like this group reacts better to accompanying listening activities with visual cues.
Engagement
I told students that this was another very special class, and they were on very good behaviour throughout. So much so, that I didn’t have to remind them that they would be given a stamp at the end of the lesson for good behaviour.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>Improvement</td><td colspan="2">The children seemed to improve their pronunciation of target words during the activity.</td><td colspan="2">The children seemed proud after the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Engagement</td><td colspan="2">The children blocked out most other distractions during the activity.</td><td colspan="2">The children’s attention was focused on the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td></td></tr>
</table>

TEACHER OBSERVATION RUBRIC			
Session: 2	**Group: EG2 Poems**	**Observation by: Maria Chapman**	**Notes**
Pleasure	The children seemed to have fun during the activity.	The children seemed to be	**Pleasure** The children were smiling and laughing during all the activities, especially when using the

<table>
<tr><td></td><td colspan="2"></td><td colspan="2">interested in the activity.</td><td rowspan="11">Moving Ear Hat to distinguish phonemes and when their classmates put on the winter clothes to act out the poem.
Relatedness
Similarly to EG1, during the Dino's Hat song, the students encouraged each other to put on the hat, scarf and gloves, and reminded them to do so when acting out the song. However, as in Session 1, there was a couple of students who wanted to participate in everything and got upset when others were chosen.
Competence/Challenge
Because the instructions given by the teacher were clear, and I mentioned that it is okay to make mistakes but to try anyway, almost all students answered questions about phoneme differences in chorus confidently. If they made a mistake, I would elicit the response and they automatically corrected themselves. This poem was a little more difficult for the children to memorise, because it had a future tense which they are not as familiar with, however after a few repetitions, they were able to produce whole sentences as well as target words.
Improvement
In this group, I tried the jingle again after the Phonemic Awareness activities and they all answered in chorus correctly. To ensure, I asked a couple of children to say the words out loud. They made the distinction even if it wasn't completely accurate.
Engagement
I was happy to see that this groups focus didn't improve much during this session. One of the students would not focus at all and was playing with materials in the class. In addition, some</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Relatedness</td><td colspan="2">The children enjoyed interacting with others during the activity.</td><td colspan="2">The children enjoyed interacting with the teacher during the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Competence/Challenge</td><td colspan="2">The children seemed confident during the activity.</td><td colspan="2">The children were able to take out the activity as their skills matched the challenges of the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>Improvement</td><td colspan="2">The children seemed to improve their pronunciation of target words during the activity.</td><td colspan="2">The children seemed proud after the activity.</td></tr>
<tr><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td></tr>
<tr><td>Engagement</td><td colspan="2">The children blocked out most other distractions during the activity.</td><td colspan="2">The children's attention was focused on the activity.</td></tr>
</table>

					students were playing with the string in the Stretch Out String activity and were busy talking to each other when reciting the poem. Although most students were on task, the overall feeling was that they were a bit distracted by their surroundings.
	YES	NO	YES	NO	

APPENDIX G: Phonological Discrimination Test for native-speaking raters

Link to Part 1: https://mariatfm00.aidaform.com/part1

Link to Part 2: https://mariatfm00.aidaform.com/Part2

APPENDIX H: Consent Form and Information Sheet for parents/legal guardians of the participants

1. Consent Form for parents in Catalan

UNIVERSITAT ROVIRA i VIRGILI

Full de consentiment informat

Títol de l'estudi: Songs/Poems as a tool to teach pronunciation to Spanish/Catalan preschoolers
Cançons/Poemes com a eina per ensenyar pronunciació a infants Espanyols/Catalans

Dades de contacte de l'investigador principal:

Maria Chapman Puig, maria.chapman@estudiants.urv.cat, +34608018810, Barcelona.

Jo ..... [1] amb DNI .....

- He llegit el full d'informació al participant sobre l'estudi del qual se m'ha entregat una còpia.
- He pogut fer preguntes i resoldre els meus dubtes sobre l'estudi i la meva participació.
- Comprenc la meva participació a l'estudi d'acord amb allò expressat al full d'informació al participant sobre l'estudi i de les respostes a les meves preguntes, així com els riscos i beneficis que comporta.
- Accepto que la meva participació és voluntària i dono lliurement la meva conformitat per participar a l'estudi.
- Conec que em puc retirar en qualsevol moment de la participació a l'estudi sense que això em pugui causar cap perjudici.
- Estic informat sobre el tractament que es realitzarà de les meves dades personals.
- Dono el meu consentiment per a l'accés i utilització de les meves dades en les condicions detallades al full d'informació al participant sobre l'estudi.

  ☐**Sí** ☐**No**
- Un cop finalitzada la investigació, és possible que les dades obtingudes siguin d'interès per a altres estudis relacionats. En relació amb això, s'ofereixen les següents opcions:

  ☐**NO autoritzar** l'ús de les seves dades en altres projectes d'investigació relacionats.

  ☐**SÍ autoritzar** l'ús de les seves dades en altres projectes d'investigació relacionats.

[2] I per expressar aquest consentiment, el representant legal del participant signa en data ..... i lloc ..... aquest full de consentiment:

Nom del representant legal.....

Relació del representant legal amb el participant .....

Signatura del representant legal .....

[1] Indicar el nom i cognoms del participant.
[2] Si el participant no pot llegir o escriure, és menor de 14 anys o per qualsevol altre motiu no pot prestar lliurement el consentiment és necessari que el seu consentiment el presti el tutor o representant legal. En aquest cas utilitzarem aquest redactat i eliminarem el corresponent a la nota anterior.

UNIVERSITAT ROVIRA i VIRGILI

Projectes de recerca / Tesis doctorals / Treballs de Fi de Màster / Treballs de Fi de Grau de la URV

Informació bàsica de protecció de dades

Informació bàsica sobre protecció de dades (format tabular)

INFORMACIÓ DE PROTECCIÓ DE DADES PERSONALS	
Responsable	El responsable del tractament de les seves dades personals és la Universitat Rovira i Virgili amb CIF Q9350003A i amb domicili fiscal al carrer de l'Escorxador, s/n, 43003 de Tarragona.
Finalitat	Participar en l'estudi del Treball Final de Grau de Màster en els termes que es descriuen al full d'informació al participant. En el cas que l'estudi prevegi la publicació, difusió i reutilització dels resultats obtinguts incloent dades personals, les dades personals seran utilitzades per a aquesta finalitat sempre que l'interessat hagi atorgat el seu consentiment.
Drets	Pot exercir els drets d'accés, rectificació, supressió, portabilitat, limitació o oposició al tractament, mitjançant un escrit adreçat al Registre General de la URV a la mateixa adreça del domicili fiscal o mitjançant la seva presentació al Registre General de la Universitat, presencialment o telemàtica, segons s'indica a https://seuelectronica.urv.cat/registre.html.
Informació addicional	Pot consultar informació addicional sobre aquest tractament de dades personals denominat *Treballs de Fi de Màster de la URV* i els seus drets al Registre d'Activitats del Tractament de la URV publicat a https://seuelectronica.urv.cat/rgpd on també s'hi pot consultar la Política de Privacitat de la URV. Així mateix, pot consultar aquesta informació al Full d'informació al participant sobre l'estudi. Addicionalment, pot adreçar als nostres delegats de protecció de dades qualsevol consulta sobre protecció de dades personals a la direcció de correu electrònic del dpd@urv.cat.

2. Consent Form for parents in English

UNIVERSITAT ROVIRA i VIRGILI

Informed consent form

Title of research project: Songs/Poems as a tool to teach pronunciation to Spanish/Catalan preschoolers

Principal researcher's contact details: Maria Chapman Puig, maria.chapman@estudiants.urv.cat, +34608018810, Barcelona.

I .....[1]holder of identity card number.....

- I have read the copy that I have received of the participant information document regarding the study.
- I have been able to ask and have received answers to my personal questions regarding the study and my participation in it.
- I understand that I am participating in this study in accordance with the specifications in the participant information document and in accordance with the answers that I have received to my questions and I understand the risks and benefits that this entails.
- I accept that my participation is voluntary and I freely agree to participate in the study.
- I understand that I can withdraw at any time from participating in the study and that my withdrawal will not affect me negatively in any way.
- I have been informed about how my personal data will be processed.
- I give my consent for my data to be accessed and used under the conditions specified in the document containing information on the study addressed to the participant.

  ☐**Yes** ☐**No**

- Once the research has been completed, the data obtained may be of interest to other related studies. In this regard, the following options are offered:

  ☐ **NOT TO AUTHORISE** the use of the data in other related research projects.

  ☐ **TO AUTHORISE** the use of the data in other related research projects.

[2] To express their consent, the legal representative of the participant signs the present consent form on..... in.....:

Name of the legal representative.....

Relationship of the legal representative with the participant .....

Signature of the legal representative.....

[1] Indicate the full name of the participant.
[2] If the participant cannot read or write, is under the age of 14 or for any other reason cannot freely give their consent, their consent needs to be given by the tutor or legal representative. In this case, use this section and eliminate the one corresponding to the previous note.

UNIVERSITAT ROVIRA i VIRGILI

Research Projects / Doctoral Theses / Master's Thesis / Bachelor's Thesis of the URV

Basic data protection information

Basic information on data protection (tabular format)

INFORMATION ON PERSONAL DATA PROTECTION	
Data Controller	The data controller is the Universitat Rovira i Virgili with Tax Identification Number Q9350003A and based at Carrer de l'Escorxador, s/n, 43003, Tarragona.
Purpose	To participate Master's Thesis under the terms described in the participant information sheet. If the study intends to publish, disseminate and reuse the results obtained, including personal data, the personal data will be used for these purposes provided that the interested party has given their consent.
Rights	The individuals concerned can exercise their right to access, rectify, remove, move, limit or oppose the processing of their data in writing to the General Registry of the URV at the same address as the URV, or in person at the General Registry of the URV or telematically in accordance with the instructions at https://seuelectronica.urv.cat/registre.html.
Further information	Individuals can find additional information about the processing of personal data in the *Master's thesis at the URV* and about their rights at the URV's Processing Registry, which is published at https://seuelectronica.urv.cat/rgpd, where they will also find the Privacy Policy of the URV. They may also find this information on the Participant's Information Document regarding the study. Furthermore, they may ask our data protection officers any question regarding the protection of personal data by sending an email to dpd@urv.cat.

3. Information sheet for parents in Catalan

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FULL D'INFORMACIÓ AL PARTICIPANT

TÍTOL DE L'ESTUDI

Songs/Poems as a tool to teach pronunciation to Spanish/Catalan preschoolers- Cançons/Poemes com a eina per ensenyar pronunciació a infants Espanyols/Catalans

ESTUDIANT

Maria Chapman Puig – Mail: maria.chapman@estudiants.urv.cat – Telèfon mòbil: +34608018810– Adreça: Barcelona.

CENTRE

Escola IPSI - Universitat Rovira i Virgili (URV)

INTRODUCCIÓ

El meu objectiu amb aquest full d'informació al participant és informar-vos sobre l'estudi d'investigació en el que es convida a participar al seu fill/a.

Aquest estudi ha estat aprovat per la Comissió Ètica de Recerca de la Universitat Rovira i Virgili.

La meva intenció és que rebeu la informació correcta i suficient perquè pugueu avaluar i decidir si voleu que el seu fill/a participi en aquest estudi. Per aquest motiu, llegiu aquest full informatiu amb atenció i us aclariré els dubtes que us puguin sorgir. Addicionalment, us informo que sou lliures de consultar amb les persones que considereu oportú abans de decidir sobre la participació del vostre fill/a a l'estudi.

PARTICIPACIÓ VOLUNTÀRIA

Heu de saber que la participació en aquest estudi és voluntària i que podeu decidir no participar o canviar la vostra decisió i retirar el consentiment en qualsevol moment.

DESCRIPCIÓ GENERAL DE L'ESTUDI

Aquest estudi té com a objectiu comprovar si les cançons són una eina didàctica útil per augmentar la precisió de pronunciació de paraules amb fonemes objectiu (sons vocàlics) en anglès quan s'integren en les lletres de les cançons.

L'estudi s'impartirà amb dues classes d'I5. A una classe d'I5 els ensenyaré dues cançons que contenen paraules amb fonemes objectiu, i a una altra classe els ensenyaré dos poemes que contenen paraules amb fonemes objectiu. Els alumnes d'ambdues classes seran gravats en àudio (sense vídeo) pronunciant les paraules abans i després de la seva realització. Gràcies a aquest procés podré veure si hi ha una millora en la precisió de la pronunciació gràcies a les cançons, i si

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hi ha alguna diferència entre ser ensenyat a través de cançons o poemes. Totes les gravacions d'àudio es faran dins del recinte escolar i en horari lectiu.

BENEFICIS I RISCOS

S'ha demostrat que les cançons desenvolupen el vocabulari dels nens gràcies a l'impacte que la música té en la memòria d'un nen. No obstant això, s'ha prestat poca atenció a l'impacte que les cançons poden tenir en la pronunciació. Ensenyar paraules amb fonemes objectiu a través de cançons és una manera d'aprofitar la capacitat dels nens en edat preescolar per produir i emmagatzemar sons en la seva memòria fonològica. Com a resultat, augmentaran les seves possibilitats de pronunciar paraules d'una manera nativa a llarg termini a mesura que desenvolupin les seves habilitats lingüístiques en anglès.

CONFIDENCIALITAT I PROTECCIÓ DE DADES

Tota la informació recopilada sobre les persones participants en el marc d'aquest estudi es mantindrà estrictament confidencial i amb aplicació de les corresponents mesures de seguretat que garanteixin, a més de la seva confidencialitat, la seva integritat, disponibilitat, autenticitat i traçabilitat.

Les dades personals recollides per a l'estudi estaran identificades mitjançant un codi i només l'investigador principal o els seus col·laboradors podran relacionar aquestes dades amb els participants. Mai s'identificarà a les persones participants en cap informe, presentació ni publicació que sorgeixi d'aquest estudi. Per tant, la seva identitat no serà revelada a cap persona, excepte quan sigui requerit pel Comitè d'Ètica al que es sotmet l'estudi amb la finalitat de comprovar les dades i procediments de l'estudi.

Per al tractament de les dades s'utilitzaran els sistemes d'informació propis de la Universitat Rovira i Virgili instal·lats a la seva xarxa informàtica aplicant-se les mesures de seguretat de la informació establertes pel Reial Decret 3/2010 que regula l'Esquema Nacional de Seguretat. Concretament, les dades es recolliran mitjançant Microsoft Forms i s'introduiran en el sistema d'informació Microsoft Excel. Posteriorment, per analitzar les dades s'utilitzarà el programa JASP.

El personal investigador de l'estudi es compromet a complir la Llei orgànica 3/2018, de 5 de desembre, de protecció de dades personals i garantia dels drets digitals, a més del Reglament (UE) núm. 2016/679, del Parlament europeu i del Consell, de 27 d'abril de 2016, relatiu a la protecció de les persones físiques pel que fa al tractament de dades personals, i signarà un compromís de participació i confidencialitat.

La finalitat del tractament de les dades és la participació en l'estudi d'acord amb el consentiment del tutor legal de la persona participant. El seu tutor legal també pot donar el consentiment per a la reutilització de les dades per a estudis futurs que estiguin relacionats.

El tutor legal de la persona participant podrà interrompre la seva participació a l'estudi o estudis futurs relacionats, retirant el seu consentiment en qualsevol moment, sense que sigui necessària la seva justificació. En aquest cas, les dades no es podran eliminar per tal de garantir la validesa dels

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resultats i complir amb les obligacions legals aplicables a l'estudi, però sí que quedaran codificades de manera que no sigui possible vincular-les a la seva persona.

INFORMACIÓ AMPLIADA SOBRE EL TRACTAMENT DE DADES PERSONALS

De conformitat amb el que disposa la legislació vigent en matèria de protecció de dades aplicable a la Universitat Rovira i Virgili (URV) i publicada a l'apartat "Legislació aplicable" de l'espai "Protecció de dades de caràcter personal" de la Seu Electrònica (https://seuelectronica.urv.cat/rgpd/), es posa en coneixement de les persones interessades la informació següent:

a) Qui és el responsable del tractament de les seves dades?

• **Identificació**	Universitat Rovira i Virgili CIF: Q9350003A
• **Adreça Postal**	Carrer de l'Escorxador, s/n 43003 Tarragona
• **Dades de contacte dels DPD**	DPD - Delegats de protecció de dades de la URV Correu electrònic: dpd@urv.cat

b) Quines dades personals tractem i amb quina finalitat?

Les dades personals són tractades amb la finalitat de participar en el projecte de recerca en els termes que es descriuen al full d'informació al participant. En el cas que l'estudi prevegi la publicació, difusió i reutilització dels resultats obtinguts incloent dades personals, les dades personals seran utilitzades per a aquesta finalitat sempre que l'interessat hagi atorgat el seu consentiment.

c) A quins destinataris es comunicaran les seves dades?

En el marc del tractament mencionat, les seves dades no es cediran a tercers tret que existeixi obligació legal o s'indiqui expressament en el full d'informació al participant.

d) Quina és la legitimació per al tractament de les seves dades?

La legitimació d'aquest tractament es basa en el consentiment que dona la persona interessada de forma expressa.

e) Quines mesures de seguretat apliquem en el tractament de les seves dades?

f) La Universitat es responsabilitza d'aplicar les mesures de seguretat i la resta d'obligacions derivades de la legislació de protecció de dades de caràcter personal, d'acord amb l'Esquema Nacional de Seguretat, Reial Decret 3/2010.

En aquest sentit, La Universitat Rovira i Virgili s'ha dotat d'una Política de Seguretat que pot ser consultada a la secció sobre "Legislació i normativa" de la pàgina web de la Universitat dintre de

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"Normativa pròpia" i "Altres normes", http://www.urv.cat/ca/universitat/normatives/altres-normes/.

Addicionalment, al Full d'informació al participant es concreten algunes mesures de seguretat específiques que es tindran en compte durant la realització de l'estudi.

g) Quins són els drets dels interessats?

L'interessat té dret a accedir a les seves dades personals; a demanar la rectificació de les dades inexactes; a sol·licitar la cancel·lació i supressió; a oposar-se al tractament, inclosa l'elaboració de perfils; a limitar fins a una data determinada el tractament de les seves dades; i a la portabilitat de les mateixes en format electrònic.

La persona participant pot interrompre la seva participació a l'estudi retirant el seu consentiment en qualsevol moment, sense donar explicacions. En aquest cas, les dades no es podran eliminar per tal de garantir la validesa dels resultats i complir amb les obligacions legals aplicables a l'estudi, però no serà possible vincular-les a la seva persona.

Podrà exercir els drets d'accés, rectificació, cancel·lació, oposició, limitació i portabilitat mitjançant comunicació escrita, detallant motivadament la sol·licitud, adreçada al Registre General (Carrer de l'Escorxador, s/n, 43003 de Tarragona) o mitjançant la seva presentació al Registre General de la Universitat, presencialment o telemàtica, segons s'indica a https://seuelectronica.urv.cat/registre.html.

Així mateix, l'informem que té dret a presentar una reclamació davant l'Autoritat Catalana de Protecció de Dades mitjançant el mecanisme que estableixi. Pot consultar més informació a https://apdcat.gencat.cat/ca/inici.

Finalment, l'informem que podrà sol·licitar informació relacionada amb la protecció de dades personals mitjançant correu electrònic als nostres delegats de protecció de dades a la direcció del dpd@urv.cat.

h) Quant de temps conservarem les seves dades?

El període de conservació de les dades és de 5 anys un cop finalitzat l'estudi, tret que el full d'informació al participant estableixi un període diferent. En qualsevol cas, es conservaran les dades fins a la revocació del consentiment per part de la persona interessada.

4. Information sheet for parents in English

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PARTICIPANT INFORMATION SHEET

TITLE OF THE STUDY

Songs/Poems as a tool to teach pronunciation to Spanish/Catalan preschoolers

PRINCIPAL INVESTIGATOR / DOCTORAL STUDENT / STUDENT

Maria Chapman – E-mail: maria.chapman@estudiants.urv.cat – Telephone: +34608018810– Postal adress: C/Floridablanca 96, 5-2, 08015, Barcelona, Spain

CENTER

ESCOLA IPSI – Universitat Rovira i Virgili (URV)

INTRODUCTION

I am writing to inform you about the research study in which your child is invited to participate.

This study has been approved by the Research Ethics Committee of the Universitat Rovira i Virgili.

VOLUNTARY PARTICIPATION

You should know that your child's participation in this study is voluntary and that you may decide for your child to not participate or to change your decision and withdraw your consent at any time.

GENERAL DESCRIPTION OF THE STUDY[1]

This study aims to test if songs are a useful teaching tool to increase pronunciation accuracy of words with target phonemes (vowel sounds) in English when they are integrated into song lyrics.

One group of students will be taught two songs (with music) containing words with target phonemes, and another group of students will be taught two poems (without music) containing words with target phonemes. Both groups of students will be audio recorded (no video) individually pronouncing words before and after they are taught. The aim of the study is to see if there is an improvement on pronunciation accuracy thanks to the songs, and if there is a difference between being taught through songs or

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poems.

All audio recordings will be taken out within the school premises and during school hours. The audio recordings will be attached to a form and analysed by two native speakers of English who will report their results back to the researcher.

Before the testing begins, parents or legal guardians will be sent a short questionnaire via email to fill in with questions about their child's musical and English language background. The information given will help the researcher analyse the effect of the children's background on the current study. The questionnaire will be sent together with a Consent Form to fill in to approve the child's participation in the current study.

BENEFINTS AND RISKS

Songs have been proven to develop children's vocabulary thanks to the impact music has on a child's memory. However, little attention has been given to the impact songs can have on pronunciation. Teaching words with target phonemes through songs is a way to take advantage of preschool children's ability to produce and store sounds in their phonological memory. As a result, they will increase their chances of pronouncing words in a native-like way in the long run as they develop their English language skills.

CONFIDENCIALITY AND DATA PROTECTION

All the information collected on the participants in the framework of this study will be kept strictly confidential and with the application of the corresponding security measures that guarantee, in addition to its confidentiality, its integrity, availability, authenticity and traceability.

The personal data collected for the study will be identified by a code and only the main researcher or his/her collaborators will be able to relate this data to the participants. Participants will never be identified in any report, presentation, or publication arising from this study. Therefore, your identity will not be revealed to any person, except when required by the Ethics Committee to which the study is submitted in order to verify the study data and procedures.

For the processing of the data, the Rovira y Virgili University's own information system installed in its computer network will be used, applying the information security measures established by Royal Decree 3/2010 that regulates the National Security

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scheme[2]. Specifically, data will be collected through Microsoft Forms[3] and will be entered into the information system Microsoft Excel[4]. Subsequently, the program JASP will be used to analyze the data[5].

The research staff of the study agree to comply with Organic Law 3/2018, of December 5, on the protection of personal data and guarantee of digital rights, in addition to Regulation (EU) No. 2016/679, of the European Parliament and of the Council, of April 27, 2016, on the protection of natural persons with regard to the processing of personal data, and will sign a commitment to participation and confidentiality.

The purpose of data processing is participation in the study in accordance with the consent of the participant's parents or legal guardians.

The participant may discontinue participation in the study by withdraw his/her consent at any time, without justification being required. In this case, the data cannot be deleted in order to guarantee the validity of the results and to comply with the legal obligations applicable to the study, but they will be coded in such a way that it is not possible to link them to your person.

EXTENDED INFORMATION ON THE PROCESSING OF PERSONAL DATA

In accordance with the provisions of current legislation on data protection applicable to the Rovira i Virgili University (URV) and published in the "Applicable legislation" section of the "Protection of personal data" area of the Electronic Office (https://seuelectronica.urv.cat/rgpd/), the following information is brought to the attention of interested parties:

a) **Who is responsible for the processing of your data?**

• **Identification**	Universitat Rovira i Virgili

[2] The URV's own systems are usually used. Otherwise, you must specify which systems and contact the Security Manager for approval. There will be, before, having confirmed with the Information Technology and ICT Service that there is no computer tool used by the URV for the same purpose..
[3] Indicate form, interview, questionnaire, as applicable.
[4] Indicate which information system of the Rovira i Virgili University will be used to carry out the study. In case of doubt about whether the system used is the University's own, contact the Information Technology and ICT Service.
[5] Indicate which data analysis program will be used to carry out the study, only if applicable; if not, remove all mention.

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	CIF: Q9350003A
• **Mailing Address**	Carrer de l'Escorxador, s/n 43003 Tarragona
• **DPD contact details**	DPD – Delegats de Protecció de Dades de la URV E-mail: dpd@urv.cat

b) What personal data do we process and for what purpose?

Personal data are processed for the purpose of participating in the research project on the terms described in the participant information sheet. In the event that the study provides for the publication, dissemination and reuse of the results obtained including personal data, personal data will be used for this purpose provided that the interested party has given his/her consent.

c) To which recipients will your data be communicated?

Within the framework of the aforementioned processing, your data will not be passed on to third parties unless there is a legal obligation to do so or unless expressly stated in the participant information sheet.

d) What is the legitimacy for the processing of your data?

The legitimacy of this treatment is based on the consent given by the person concerned expressly.

e) What security measures do we apply in the processing of your data?

The University is responsible for applying the security measures and other obligations arising from the legislation for the protection of personal data, in accordance with the National Security Scheme, Royal Decree 3/2010.

In this sense, the Rovira i Virgili University has provided a Security Policy that can be consulted in the section on "Legislation and regulations" of the University website within "Own regulations" and "Other regulations", http: //www.urv.cat/ca/universitat/normatives/altres-normes/.

In addition, the Participant Information Sheet specifies some specific safety measures

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that will be taken into account during the study.

f) What are the rights of data subjects?

The data subject has the right to access their personal data; to request the rectification of inaccurate data; to request cancellation and deletion; to object to the processing, including profiling; to limit until a certain date the processing of your data; and their portability in electronic format.

The participant can discontinue their participation in the study by withdrawing their consent at any time, without giving explanations. In this case, the data cannot be deleted to guarantee the validity of the results and comply with the legal obligations applicable to the study, but it will not be possible to link them to your person.

You can exercise the rights of access, rectification, cancellation, opposition, limitation and portability through written communication, detailing the request, addressed to the General Registry (Carrer de l'Escorxador, s/n, 43003 , Tarragona) or by submitting it to the General Registry of the University, in person or online, as indicated in https://seuelectronica.urv.cat/registre.html.

We also inform you that you have the right to lodge a complaint with the Catalan Data Protection Authority through the mechanism they establish. You can find more information at https://apdcat.gencat.cat/ca/inici.

Finally, we inform you that you can request information related to the protection of personal data by email to our data protection delegates at the address dpd@urv.cat.

g) How long will be kept your data?

The period of conservation of the data is 5 years once the study is completed, unless the participant information sheet establishes a different period. In any case, the data will be kept until the revocation of the consent by the person concerned.