PONTIFICAL CATHOLIC UNIVERSITY OF RIO GRANDE DO SUL
SCHOOL OF HUMANITIES
LETTERS

ANA CAROLINA VIEIRA FREITAS

BILINGUALISM AND BILITERACY: THE IMPORTANCE OF PHONOLOGICAL AWARENESS ACTIVITIES FOR K5 STUDENTS OF AN INTERNATIONAL SCHOOL IN PORTO ALEGRE

Porto Alegre
2022

GRADUAÇÃO

Pontifícia Universidade Católica
do Rio Grande do Sul

ANA CAROLINA VIEIRA FREITAS

BILINGUALISM AND BILITERACY: THE IMPORTANCE OF PHONOLOGICAL
AWARENESS ACTIVITIES FOR K5 STUDENTS OF AN INTERNATIONAL SCHOOL
IN PORTO ALEGRE

> Monograph presented as a partial requirement
> for obtaining a Teaching Degree in Language
> Arts: English from the Language Arts: English
> course at the Pontifical Catholic University of
> Rio Grande do Sul.

Advisor: Aline Fay de Azevedo, PhD

Porto Alegre
2022

ANA CAROLINA VIEIRA FREITAS

BILINGUALISM AND BILITERACY: THE IMPORTANCE OF PHONOLOGICAL
AWARENESS ACTIVITIES FOR K5 STUDENTS OF AN INTERNATIONAL SCHOOL
IN PORTO ALEGRE

> Monograph presented as a partial requirement
> for obtaining a Teaching Degree in Language
> Arts: English from the Language Arts: English
> course at the Pontifical Catholic University of
> Rio Grande do Sul.

Approved in … …, 2022.

Board of examiners:

ALINE FAY DE AZEVEDO, PhD – Advisor

(PUCRS)

ASAFE DAVI CORTINA SILVA, Me

(PUCRS)

ALINE EVERS, PhD

(PUCRS)

Porto Alegre

2022

ACKNOWLEDGMENTS

Throughout the four memorable years of this journey, I would like to thank some important people who made it even more enjoyable:

- To my parents, Eva and Patrício, who have always supported and encouraged me to read since I was a little child, as well as to study something that I am passionate about.

- To my extraordinary advisor, Aline Fay, who helped me develop this paper. Thank you for always having so much patience in replying to my several e-mails.

- To my friends, who have been by my side supporting me and making me laugh every step of the way.

- To my students, my colleagues, and to the school where I work at. It was because of you that I had the idea to write this paper. Thank you for making my days happier, funnier, and more meaningful.

- Last but not least important, I would like to thank Asafe Cortina and Aline Evers who have granted me the honor of being part of my board of examiners.

The limits of my language mean the limits of my world.
(Ludwig Wittgenstein)

ABSTRACT

Studies on biliteracy have gained increasing attention recently, mainly due to the visibility that child bilingualism and bilingual education has received in the world and also in Brazil in the past decade. Studies related to bilingualism and biliteracy conducted from a Psycholinguistics perspective in Brazil are scarce, let alone studies involving the importance of phonological awareness for biliteracy. With that in mind, the main objective of the present paper is to investigate the process of biliteracy in K5 groups in an international school in Porto Alegre. As for the specific objectives, we intend (1) to present an overview of bilingualism and bilingual education, (2) to investigate the importance of phonological awareness activities regarding biliteracy (Portuguese and English), and (3) to present a comparison between literacy in English x literacy in Portuguese at an international school in Porto Alegre. With regards to methodology, the present paper is grounded in the field of Psycholinguistics of bilingualism and it is a bibliographic review of articles and books, followed by a personal account of the processes underlying biliteracy in an International school in Porto Alegre- RS. The results show that the use of activities that foster the development of students' phonological awareness in both English and Portuguese help students learning the basic skills to read and write in two languages. However, it was possible to notice that English seems to be the main goal of the school since students have much more time of instruction in English than in Portuguese inside the classroom. For future research we suggest a pre and post-test to measure students' knowledge regarding phonological awareness at the beginning and the end of school year.

Keywords: bilingualism; biliteracy; English; Portuguese; phonological awareness.

RESUMO

Os estudos sobre biliteracia têm ganhado cada vez mais atenção recentemente, principalmente devido à visibilidade que o bilinguismo infantil e a educação bilíngue têm recebido no mundo e também no Brasil na última década. Estudos relacionados ao bilinguismo e biliteracia realizados sob a ótica da Psicolinguística no Brasil são escassos e mais ainda são os estudos envolvendo a importância da consciência fonológica para a biliteracia. Pensando nisso, o presente trabalho tem como objetivo principal investigar o processo de biliteracia em turmas do K5 em uma escola internacional de Porto Alegre. Quanto aos objetivos específicos, pretendemos (1) apresentar um panorama sobre o bilinguismo e a educação bilíngue, (2) investigar a importância das atividades de consciência fonológica na biliteracia (português e inglês) e (3) apresentar uma comparação entre a alfabetização em inglês x alfabetização em português em uma escola internacional em Porto Alegre. No que diz respeito à metodologia, o presente trabalho está fundamentado no campo da Psicolinguística do bilinguismo e trata-se de uma revisão bibliográfica de artigos e livros, seguida de um relato pessoal dos processos subjacentes à biliteracia em uma escola internacional de Porto Alegre-RS. Os resultados mostram que o uso de atividades que promovam o desenvolvimento da consciência fonológica dos alunos em inglês e português auxiliam os alunos a aprender as habilidades básicas de leitura e escrita em dois idiomas. No entanto, foi possível perceber que o inglês parece ser o principal objetivo da escola já que os alunos têm muito mais tempo de instrução em inglês do que em português dentro da sala de aula. Para pesquisas futuras, sugerimos um pré e pós-teste para medir o conhecimento dos alunos em relação à consciência fonológica no início e no final do ano letivo.

Palavras-chave: bilinguismo; biliteracia; inglês; português; consciência fonológica.

LIST OF ACRONYMS

AWS – ALPHABETIC WRITING SYSTEM

G1 – GRADE 1 / 1º ANO DO ENSINO FUNDAMENTAL (BRAZIL)

GTP CORRESPONDENCE – GRAPHEME-TO-PHONEME CORRESPONDENCE

K5 – KINDERGARTEN

L1 – FIRST LANGUAGE / MOTHER LANGUAGE / LOCAL LANGUAGE

L2 – SECOND LANGUAGE / TARGET LANGUAGE / FOREIGN LANGUAGE

P3 AND P4 – PRE KINDERGARTEN

PA – PHONOLOGICAL AWARENESS

US – UNITED STATES

LIST OF FIGURES

LIST OF TABLES

TABLE OF CONTENTS

1   INTRODUCTION

Individuals live in a globalized world full of technology in which people dream to visit many places and get acquainted with different cultures; hence, learning a second language (L2)[1] is essential. "Researchers on bilingualism have repeated over the years that half of the world's population, if not more, is bilingual." (GROSJEAN, 2013, p.14) Also, mastering more than one language can help the understanding of speakers' mother tongues (L1) and can open several academic, economic, and social opportunities, for instance, some commercial businesses demand bilingual employees in order to achieve more clients from different parts of the globe. In addition, according to Moura (2021), "English has become a means to access information that is widely spread online."

Regarding the definition of bilingualism, we settle with Grosjean's (2013) definition, in which bilinguals are described as individuals who use two or more languages (or dialects) in their everyday life.

Since 1981, the number of private bilingual schools in Brazil has increased, especially after two important events that happened in the country: the World Cup and the Olympic Games. Moreover, English is a well-known language worldwide, which makes people want to be able to communicate through it.

It is common knowledge that learning an L2 early in life is considered easier when compared to learning it as an adult. In order to smooth their children way into learning an L2, parents seem to be looking for bilingual school all over Brazil, so their children can learn to read and write in two languages (English-Portuguese).

Literacy involves processes that are not "natural", different from the spoken language that is innate for humankind. According to Finger, Brentano, and Ruschel (2019), students need "not only to understand the relationships between sounds and letters but mainly to attribute meanings to writing, [and] learning to identify the context in which it is inserted (that is, writing with the aim to communicate something to someone)." They also state that "over the millennia our cognitive apparatus had to adapt in order to receive and process this cultural invention, which is writing." With that being said, biliteracy involves the same skills as literacy does, but the students learn to identify sounds and letters of words in two languages at the same time in order to be proficient while reading and writing in both.

---

[1] The terms second language, L2, additional language, and foreign language are going to be used interchangibly along this paper.

The focus of this paper is biliteracy - Portuguese and English. Consequently, exposing children to activities involving phonological awareness in both languages is a crucial element. It is important to mention this topic and also how our brain system works when learning to speak, write, and read as well as how to explicitly instruct students who are acquiring those skills.

As an intern at an international school in Brazil, I have had contact with 4 to 6-year-old children who are going to be biliterate, meaning they are learning how to speak, read, and write in two languages: Portuguese and English. The passion for teaching kids how to read and write and the growing curiosity to understand how this process occurs in two languages were the fuel that ignited this research. Consequently, in this paper, we investigate how the process of biliteracy happens and works in the kindergarten in this international school in Porto Alegre.

Taking all these factors into consideration, the main objective of the present paper is to investigate the process of biliteracy in K5^2 groups in an international school in Porto Alegre. As for the specific objectives, we intend (1) to present an overview of bilingualism and bilingual education, (2) to investigate the importance of phonological awareness activities regarding biliteracy (Portuguese and English), and (3) to present a comparison between literacy in English versus literacy in Portuguese at an international school in Porto Alegre.

As for the research questions, we have (1) "What is bilingualism and bilingual education?", (2) What is the importance of phonological awareness activities when learning to read and write in two languages?" (3) How can we compare the processes involving literacy in English and Portuguese at an international school in Porto Alegre?".

With regards to methodology^3, the present paper is grounded in the field of Psycholinguistics of bilingualism and it is a bibliographic review of articles and books, followed by a personal account of the processes underlying biliteracy in an International school in Porto Alegre-RS.

This monograph is organized into 5 chapters. In the introduction, we have a brief summary of the topics that are going to be tacked in this paper, along with the justification and objectives. In chapter 2, we have two sections presenting a brief overview of bilingualism and bilingual education in Brazil, followed by chapter 3 on biliteracy and the importance of phonological awareness to bilingual students. In chapter 4, we explain how an international school in Porto Alegre works with regards to biliteracy, the use of phonics, and instruction in both Portuguese and English with K5 students. Finally, in chapter 5, we have the final

---

^{2} Kindergarten (5 year-old children)
^{3} All the sources mentioned and published in Portuguese were translated by the author of this paper.

considerations of the present paper followed by its limitations, future research aims, and references.

2   BILINGUALISM AND BILINGUAL EDUCATION: AN OVERVIEW

In this chapter, we are going to present an overview of the history of bilingualism and bilingual education.

Bilingualism is a broad subject and several studies have already been carried out regarding the theme. The term *Bilingualism* has more than one definition because there is not only one type of bilingual. People are different individuals that live different situations in life.

In section 2.1, we present a brief overview of the history of bilingualism and, in section 2.2, we talk about bilingual education and present the difference between bilingual and international schools.

2.1 Bilingualism

Bloomfield (1933) was the first person to name the term *bilingualism*: "In the cases where this perfect foreign-language learning is not accompanied by loss of the native language, it results in *bilingualism*, native-like control of two languages" (BLOOMFIELD, 1933, p.55-56). Moreover, in the 21st century, Grosjean and Li (2013) argue that bilingualism, as well as multilingualism, is "the use of two or more languages (or dialects) in everyday life" (GROSJEAN; LI, 2013, p.13). Also, the authors consider that it is not possible to quantify how many people are bilingual in the whole world, however, "it is clear that bilingualism is found in all age groups, in all levels of society, and in most countries" (GROSJEAN; LI, 2013, p.14).

Although the term *bilingualism* was first mentioned in 1933, it was only 28 years later that it started to become a popular topic. In 1961, the first academic bilingual study called *The Effects of Bilingualism on Intelligence* was conducted by Elizabeth Peal. And, three years later, she wrote an article called *A Comparison of the Cognitive Functioning of Monolinguals and Bilinguals* along with Wallace E. Lambert, one of the founders of psycholinguistics and sociolinguistics and considered the father of the psychological study of bilingualism (VAID *et al.,* 2010, p.290). Since then, more bilingual studies started to be published.

As known, "Bilingual language use is a complex experience." (KORENAR; TREFFERS-DALLER; PLIATSIKAS, 2020, p.5) and, in order to make it easier for the speaker to understand the languages s/he is willing to speak, Grosjean (2010) argues that the individual's L1 can work as a tool or facilitator when learning a new language because "[…] the home language can be used as a linguistic base for acquiring aspects of the other language.

It also gives children a known language to communicate in (with parents, caretakers, and, perhaps, teachers) while acquiring the other" (GROSJEAN, 2010, p.176).

Furthermore, to understand more about bilingual children, it is important to start acknowledging that, according to Grosjean (2010), children can become *simultaneous bilinguals* – who acquire two languages at the same time before age four – or *successive bilinguals*, who acquire one language after the other from age five on. Regardless of these differentiations, he affirms that "Whatever the type of acquisition, the degree of bilingualism attained can be the same" (GROSJEAN, 2010, p.178). On the contrary, back in time,

> The initial view proposed that early, highly proficient bilinguals should show the largest executive control advantages due to their prolonged experience managing two languages. [...] The acquisition of a new language may be more effortful for late bilinguals than for infants who acquire two languages from birth. Later language acquisition may require more language control processes and stronger inhibition over the first language. (BRUIN, 2019, p.2)

Conversely, Baker (2001) agrees that *simultaneous bilingual* or *simultaneous childhood bilingualism* refers to a child acquiring two languages at the same time early in life" (BAKER, 2001, p.87). Additionally, he uses the term *sequential bilingual* rather than *simultaneous bilingual* and states that the term refers to people who acquire an L2 after acquiring an L1. Therefore, different from Grosjean (2010), Baker (2001) does not mention a specific age as Grosjean does.

Baker (2001) also describes *circumstantial bilinguals* as people who "learn another language to survive." (BAKER, 2001, p.3), such as immigrants. If they do not understand the language used in the country in which they are currently living, they are not able to understand people or communicate with them to get a job, study, etc. Unfortunately, they sometimes do not have contact with their L1 anymore and if they stop practicing, "[the mother language] is in danger of being replaced by the second language" (BAKER, 2001, p.4).

Following, regarding language dominance, a bilingual child will have language dominance depending on how much s/he is exposed to it, states Grosjean (2010). For instance, a bilingual child (Portuguese-English), who lives in Brazil, is going to have Portuguese language dominance because s/he will have more contact with this language outside school. Now, take the same child as an example but living in England for the same amount of time. English is going to be the child's dominant language for the same reason: s/he will need much more English to communicate in her everyday life. Therefore, it can be faulty to assume that mother languages or mother tongues are always the dominant ones. Depending on the child's

stage of life, any language s/he knows can be the predominant one (GROSJEAN; LI, 2013). It can happen with either simultaneous or successive bilinguals, however,

> Language dominance in children acquiring successively is even more pervasive than in their younger counterparts who are raised with two languages from the start, since at first they only have one language and it is constantly present when they are acquiring and speaking the second language. (GROSJEAN, 2010, p.192-193)

In addition, "a more plausible explanation for the effects of language proficiency on cognition can be found in considering […] that if someone achieved high proficiency in their L2, they must have needed to engage with the second language often, or intensely" (KORENAR; TREFFERS-DALLER; PLIATSIKAS, 2020, p.10-11). Grosjean also argues about that, by saying that

> […] language dominance in children acquiring two languages simultaneously is mainly due to the amount of exposure they get in each language. It is common for a child to receive more input in one language than to receive equal inputs in the two. (GROSJEAN, 2010, p.192)

However, when thinking about first or second language acquisition, Escamilla *et al.* (2014) state that simultaneous bilinguals do not have an L1 or an L2. Both languages are their "first" language because "For these children, bilingualism is their dominant language" (ESCAMILLA *et al.*, 2014, p.5).

Furthermore, when it comes to code-switching[4], a very common trait in bilinguals' lives, it is known that children "will insert elements of their stronger language into their weaker language as a stop-gap measure" (GROSJEAN, 2010, p.198).

> When bilinguals are in a monolingual mode, that is, speaking or writing in just one language, we expect that their other languages are deactivated and do not intervene. This would make sense, since the bilinguals are usually communicating with people who do not know the other languages. In fact, however, things are not quite as simple as that. Bilinguals may sometimes code-switch when speaking or writing monolingually, and they regularly produce interferences. (GROSJEAN, 2010, p.66)

The explanation for code-switching might be because "Crucially, one of the critical discoveries within bilingualism is that the different languages a bilingual knows are both active, even if bilinguals intend to use only one of them" (KROLL *et al*., 2012 *apud* KORENAR; TREFFERS-REFFERS-DALLER; PLIATSIKAS, 2020, p.5-6).

---

[4] the act of changing between two or more languages, dialects, or accents while speaking.

Nevertheless, they will only "choose" to do this "interference" in appropriate situations, such as when other people are also bilinguals and will understand them (GROSJEAN, 2010, p.198). The author argues that when bilinguals learned enough about the structure and vocabulary of the languages they know, they will decreasingly stop inserting elements of their stronger language into the weaker one (GROSJEAN, 2010, p.198).

Cognitively speaking, children can quickly learn about language choice and code-switching. However, this is an unconscious skill since the choices are made so fast that bilinguals do not need to stop and think about which language they are going to speak, they can adapt to the environment and the people almost in the blink of an eye. That is the reason why the word *choose* is between quotes in the previous paragraph. Bilinguals *choose* to code-witch but not quite thinking about this because the decision can be made in seconds, something almost automatically.

Grosjean (2010) also states how important it is for the people involved in children's upbringing to investigate bilingualism. This way, they might be able to help, understand, and support the child in the process of acquiring more than one language at the same time. Besides, the school is another important aspect highlighted by the author, since it is responsible for the acquisition or the loss of a language. The school can stimulate children to continue learning and improving their knowledge; in contrast, a school not interested in instigating children to continue in contact with their language(s), can also accelerate the process of losing their skills.

Finally, according to Cambridge Assessment International Education (2017), researchers are showing more and more "evidence suggesting that there are potential benefits to individuals, schools, and societies in being bilingual, for example, increased mental flexibility, improved inter-cultural skills, [and] increased opportunities for global exchange and trade." Also, Marcelino (2009) argued that due to the constant awareness of two languages, bilinguals become more alert, peaceful, and sensible to monolinguals' linguistic mistakes as well as to other cultures since they start learning about their L2 culture.

In the next section, we discuss the topic bilingual education and its exponential growth in Brazil.

2.2 Bilingual Education

Maher (2013) mentions that besides Portuguese, 222 other mother languages are spoken in Brazil, including 40 spoken by migrants and 2 sign languages[5]. According to Hedlund (2021), the main reason for so many languages, ethnicities, cultures, and linguistic backgrounds is due to indigenous and several immigrants that came from Italy, Germany, and Japan at the end of the 19th century.

English teaching started in 1809 with a decree "signed by D. João VI, a Portuguese Prince who ruled Brazil at the time, which stipulated the creation of a school of French and a school of English" (OLIVEIRA; HOFLING, 2021, p.26). Several years later, in 1940, during World War II, the United States (US) was Brazil's main trade partner. Therefore, since then, English started to be more present and stronger in the country.

> The teaching of English has grown rapidly as a result of changing national and international political and economic contexts. This growth can be witnessed through the social, cultural, and economic sectors of the country. Every year, more and more Brazilians seek to develop fluency and proficiency in English, hoping to obtain better opportunities in a competitive and intimidating job market. (OLIVEIRA, 2021, p.26)

In 1981, according to *Playpen* website, Brazil inaugurated its first bilingual school for early years with the name *Playpen*. Moreover, according to Moura (2021), the number of private bilingual schools in Brazil has increased since its first. Megale (2019) agrees with Moura (2021) and adds that bilingual schools "use prestigious languages as means of instruction, such as English and Portuguese, German and Portuguese, or French and Portuguese" (MEGALE, 2019, p.9). Brentano, Finger, and Ruschel (2019) also confirm that the growing bilingual schooling is a Brazilian reality.

In addition, Brazil hosted the World Cup, in 2014, as well as the Olympic Games, in 2016. As a consequence, it also contributed to the government to start being more aware and interested in changing the curriculum of some public schools, so "bilingual education became available for lower-income families" (MOURA, 2021, website).

Megale and Liberali (2016) state the possibility to divide bilingual education into 4 considerable domains: (I) Bilingual education for deaf students (Portuguese/LIBRAS); (II) Bilingual education for indigenous communities, in which indigenous students have the opportunity to maintain their language and traditions, as well as to learn Portuguese; (III) Bilingual education in multilingual contexts, such as German and Ukrainian communities in

---

[5] according to Castro (2019), a Língua Brasileira de Sinais (Libras) e a Língua de Sinais Kaapor Brasileira.

the south of Brazil or border communities that speak Portuguese and Spanish, and (IV) Bilingual education for students of dominant classes, entitled as elite – or prestige – bilingualism, such denomination is due to the favorable financial conditions of the students who attend these schools (MEGALE; LIBERALI, 2016).

Megale (2018) argues that bilingual education for students of dominant classes concentrates on a more elitist education focusing on the learning of a new language, the discovery of other cultures, and, in most cases, the possibility to complete their studies abroad. By acknowledging this elitist Brazilian context, bilingual schools started opening in the whole country comprehending all ages, from nursery to high school. Besides, a significant number of monolingual schools adapted their curriculum in order to be renamed as bilinguals. By doing it, those schools were able to increase their number of higher-income students.

Marcelino (2009) also investigated bilingualism in Brazil. He states that language courses/language schools were the ones providing the learning of an L2 to Brazilian children instead of traditional or bilingual schools. Certainly because, in the past, it was believed that the English language taught in Brazilian traditional schools might not be good enough to form proficient learners. As a result, in order for children to develop communicative skills, it would be necessary for them to study in a language course/language school. Hence, it was believed to be the only place in which proficient professionals would be able to teach and guide students in learning the target language properly. Those language schools helped the students get international certificates that confirmed their educational background as well as their fluency.

Nowadays, schools are not inclined to continue "ignoring" the fact that learning how to speak a second language can and should be taught in schools and not only in language courses. However, Marcelino (2009) states that there were some schools still doing the opposite and investing in the "old way" of teaching languages, ignoring the fact that is little functional and ineffective, in his own words.

Over time, also according to Marcelino (2009), bilingual schools started to emerge because of the lack of teachers' fluency, resources, lesson time, and a considerable number of students in class. He states that bilingual schools start to arise uniting two competencies: focus on traditional schools, which were centered on the individual's development and commitment to language development. However, he mentions that the concept of bilingual school changes depending on the country, which brings different possibilities and interpretations. For instance, in some Brazilian bilingual schools, teachers plan lessons including interactions in English (L2) as well as in Portuguese (L1). Additionally, Brazilian cultural aspects are discussed along with American and British ones – a tendency in a globalized world. Consequently, English starts to

be the language of information, of the internet, of international transactions, and of the academic community.

Megale (2019) argues that there are mostly private bilingual schools in Brazil, there are already some public bilingual schools, though. For instance, in the city of Rio de Janeiro (RJ), there are 25 public schools, including 9 focused on English, 12 on Spanish, 3 on German, and 1 on French.

Furthermore, Marcelino (2009) mentions that the idea of bilingual instruction seems to be well-accepted by parents. They see bilingual schools as important and necessary for their children's education because of the combination of both good educational backgrounds combined with the instruction of a second language. In detail, bilingual education takes place when children are simultaneously instructed in two languages. They learn languages through language classes (Portuguese and English) as well as through other academic content classes (History, Geography, Math, etc.) because students have to learn every part of the curriculum in both languages (BRENTANO; FINGER, 2020).

Megale (2019) also claims that what cannot be considered bilingual programs are the curriculums in which the target language is taught as a subject but not used for academic purposes. The students need to develop their knowledge in other areas while using their L2.

What is more, she also argues that bilingual education is teaching how to be sensitive when talking about culture. Hoexter (2017) mentions that, either in traditional or bilingual schools that work with preschool, pupils must have an upbringing focused on citizenship. Second language culture is also considered important and should be included in the school curriculum, without overlapping or decreasing the L1-related culture learning.

Also, about preschools, according to the *Organização das Escolas Bilíngues* (OEBi), they must have, at least, 75% of the school hours in another language rather than Portuguese, whereas elementary grades (1st to 5th) must present, at least, 1/3 of the school hours in another language rather than Portuguese. On the other hand, regarding international schools and taking an American international school as an example, it must follow an American curriculum, all the disciplines should be taught in English, the school calendar should follow the American one, and all the students must receive an international diploma.

In the middle of 2020, a project was launched by the National Council of Education with a set of rules for bilingual schools in order to differentiate them from other types of schools. One of the rules says that future teachers need to present a document proving they are proficient in the language they want to teach and that they took a specific training of, at least, 120 hours in bilingual education (apart from having a degree in Letters or Pedagogy).

Finally, Hoexter (2017) states that the result of a successful bilingual education is to provide the student with the knowledge necessary to develop the ability to communicate through four skills: speaking, listening, reading, and writing. Unfortunately, according to the British Council, only 5% of Brazilians were proficient in the English language in 2014. Hence, the lack of English speakers in the country shows how important it is to expand the number of bilingual schools, for researchers to keep investigating the topic, and, for teachers to continue to be informed about bilingualism and bilingual education.

Last but not least important, since the present paper presents data on an international school in Porto Alegre, we finish this section by pointing out the main differences between bilingual schools and international schools.

Bilingual schools usually follow the national curriculum in which the school is placed. The students are educated in both languages: the local language (L1) and the second language (L2). According to a report from Rugby School Thailand (c2020)[6], there are four educational programs used in bilingual schools: (1) *Transitional bilingual education*, in which the students are taught for three years in their L1 in order not to "fail" in subjects such as science, mathematics, and history while learning an L2; (2) *Immersion bilingual programs* that teach all the subjects in the L2 the school is focused on; (3) *Two-way immersion* or *Dual language immersion* that instructs the school subjects in two languages, consequently, all the students (native and non-native) are assisted to become both bilingual and biliterate; and (4) *Late-exit* or *developmental bilingual education* in which the students use mostly their L1, "accompanied by brief lessons in English" (RUGBY SCHOOL THAILAND, c2020, website). The objective is for the students to develop literacy in their L1 before acquiring their L2, being able to transfer the knowledge from one to the other.

Whereas, International schools follow the curriculum of the country or language they teach, for instance, the international school presented in the next chapter is an International American school, hence, it follows the American calendar and curriculum, as it would if it were placed in the US. However, since it is in Brazil, it takes into consideration foreign students as well as English as a Second Language (ESL) learners. Another important aspect is that this type of school hires specialist teachers, meaning it is going to have different teachers for arts, physical education, music, and for the additional language they are teaching as L2. In Brazil, an American school is going to hire a Portuguese teacher to teach the country's L1. Furthermore, in Primary school, the main teacher or "homeroom teacher" is going to share the

---

[6] https://www.rugbyschool.ac.th/international-schools-vs-bilingual-schools

classroom with a teacher assistant who will help with the organization of the classroom, with the children, and also with teaching. The goal is not only academic but the school "will offer a more dynamic education that helps nurture the mind, body, and spirit of students, allowing them to grow holistically and prosper in all aspects of life" (RUGBY SCHOOL THAILAND, c2020, website). It also "exposes your child to students and teachers from various cultures and backgrounds" (RUGBY SCHOOL THAILAND, c2020, website).

In the next chapter, we are going to present the construct of biliteracy and discuss the importance of phonological awareness for pupils learning to read and write in two languages.

3 THE BRAIN AND BILITERACY: THE IMPORTANCE OF PHONOLOGICAL AWARENESS FOR BILINGUAL CHILDREN

In this chapter, we are going to shed some light on the concept of biliteracy and present some relevant information about phonological awareness for children learning to read and write in two languages at the same time.

Biliteracy (Portuguese-English) is a relatively new concept in Brazil since the regulation of bilingual schools started being analyzed in 2020/21. Due to this fact, we decided to briefly research the topic and see the results. The chart below (Table 1) illustrates the information found on the topics *biliteracy*, *biliterate*, and *phonological awareness*. The data is from a reliable Brazilian database called *Portal de Periódicos da Capes*.

Table 1 – Keywords searched in *Portal de Periódicos da Capes*

Key-words searched	Number of occurrences in *Portal de Periódicos da Capes*
Biliteracy	558
Biliteracia	1
Biliterate	173
Biliterado	0
Phonological Awareness	6838
Consciência Fonológica	817
Biliteracy + Biliterate	60
Biliteracia + Biliterado	0
Biliteracy + Phonological Awareness	44
Biliteracia + Consciencia Fonológica	0
Biliterate + Phonological Awareness	6
Biliterado + Consciência Fonológica	0
Biliteracy + Biliterate + Phonological Awareness	0
Biliteracia + Biliterado + Consciência Fonológica	0

Source: The author (2022)

As we can see in Table 1, when researching the word "Biliteracy", we found 558 occurrences with the term while for "Biliteracia" only 1. The term "Biliterate" has 173 occurences, "Phonological Awareness" has 6838, "Consciência Fonológica" has 817, "Biliteracy + Biliterate" has 60, "Biliteracy + Phonological Awareness" has 44, and "Biliterate + Phonological Awareness" has 6. Unfortunately, when searching for the terms "Biliterado", "Biliteracia + Biliterado", "Biliteracia + Consciência Fonológica", "Biliterado + Consciência

Fonológica", "Biliteracy + Biliterate + Phonological Awareness", and "Biliteracia + Biliterado + Consciência Fonológica", there is none result found.

Phonological Awareness (6838) shows a considerable number of papers in the field; in contrast, looking at the same topic but in the Portuguese language *Consciência Fonológica* (817), we perceived that less research was conducted. Moreover, considering *Biliteracy* (558) and *Biliterate* (173), we see less research than in *Phonological Awareness*. Additionally to that, according to *Merrian-Webster* dictionary, the term *biliterate* was used for the first time in 1947.

Consequently, our goal is to investigate more about these three topics and shed some light on these fields that are exponentially growing in Brazil, therefore, we are positive that the present paper may contribute to future studies.

"Neurologists and neurolinguists have recently conducted brain-imaging studies in an effort to better understand the structures that control language choice" (GROSJEAN, 2010, p.65-66). Abutalebi and Green (2008) proposed that the left part of the brain controls language use, language inhibition, and possible mistakes that have been made regarding language choice.

> "Why the left side is favoured for language isn't known. But we do know that injury or conditions such as epilepsy, if it affects the left side of the brain early in a child's development, can increase the chances language will develop on the right side. The chance of the person being left-handed is also increased." (ABBOTT, 2016, website)

The picture below (Figure 1) shows the 3 important areas on the left part of the brain responsible to form and process language as well as help individuals understand and express language(s).

Figure 1 – Brain areas responsible for language development
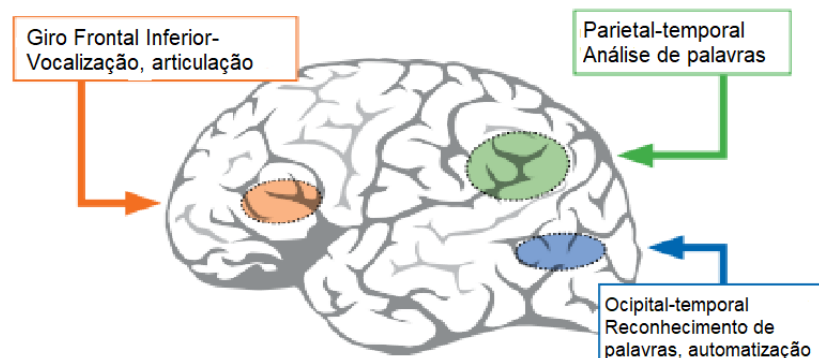
Source: Adapted from Shaywitz (2020).

It was possible to see in the picture above that three areas are responsible for the process and understanding of words: Broca, Wernicke's, and the visual cortex (occipital-temporal).
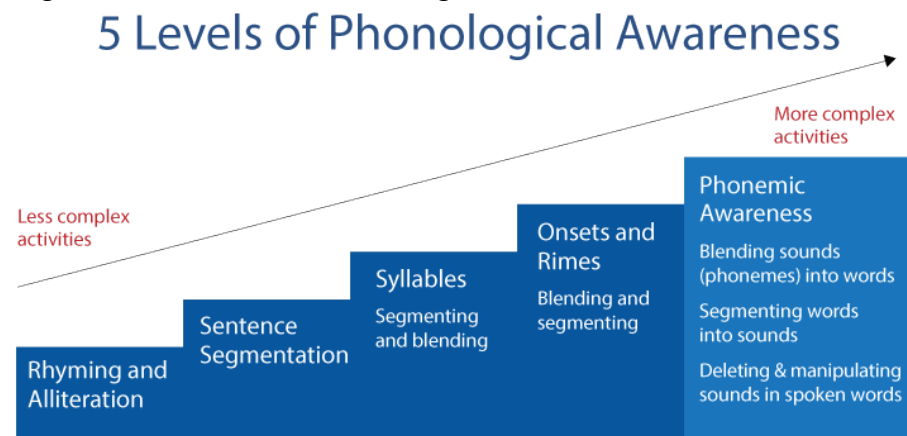
3.1   PHONOLOGICAL AWARENESS

Discussing the reading process, according to Dehaene (2012) the languages based on an Alphabetic Writing System (AWS) demand from the readers the ability to be independent in three conditions: the comprehension of the alphabetic principle, the ability to decode, and the constitution of the orthographic mental lexicon. The focus of this paper is the English and Portuguese languages, which are based on AWS. However, in regards to orthographic depth (grapheme-phoneme correspondence), English is considered a deep orthography, whereas Portuguese is considered shallow.

Azevedo *et al.* (2017) agree by saying that learning to read requires the child to understand the alphabetic principle in order to use grapheme-phoneme (letter-sound) correspondence to decode written information and comprehend what is being read.

Taking the authors' assumptions into consideration, we can perceive the importance of learning the sounds and sounding out words when learning to read because it is exactly where phonological awareness (PA) comes into the limelight. According to Teixeira and Azevedo (2021), phonological awareness is the ability to recognize and manipulate the spoken parts of sentences and words. Examples include being able to identify words that rhyme, recognizing alliteration, segmenting a sentence into words, identifying the syllables in a word, and blending and segmenting onset rimes, as we can see in Figure 2 below.

Figure 2 - Five levels of Phonological Awareness

Source: National Center on Improving Literacy (2022).

To help a better understanding of the levels of Phonological Awareness, we present some examples in the chart below (Table 2):

Table 2 - Examples of the 5 levels of Phonological Awareness

Word Level Rhyming Bat/ cat/ hat Alliteration Bold big brown bear	Sentence Segmentation I / see / the / dog = 4 words	Syllable Level ba-by = 2 syllables ex-er-cise = 3 syllables	Onset & Rime Level Onset = **m**ap Rime = m**ap**	Phonemic Awareness Level /m/ /oo/ /n/ moon = 3 phonemes

Source: The author (2022)

PA involves a continuum of skills that develop over time and that are crucial for reading and spelling success because they are central to learning to decode and spell printed words. Phonological awareness is especially important at the earliest stages of reading development — in pre-school, kindergarten, and first grade for typical readers (TEIXEIRA; AZEVEDO, 2021). Explicit teaching of PA in these early years can eliminate future reading problems for many students. It is important to point out that PA is like an umbrella, which among other skills exists under this umbrella.

Children must be aware that the sounds associated with letters are precisely the same in speech. For those who already know how to read and write, this understanding seems basic. However, some researchers already show that this skill does not come naturally or easily to human beings. It takes some time to process that the spoken language consists of a sequence of phonemes. The acknowledgment of the existence of phonemes is called phonemic or phonological consciousness (ADAMS; FOORMAN; BEELER, 2012, p.19). In addition, according to Azevedo *et al*. (2017), through explicit teaching and reading practice, it is possible to help children associate graphemes (letters) in words with the corresponding phonemes (sounds).

Gradually, according to Morais (2013), the reading process begins to be faster and more accurate while the reader becomes more proficient. It happens because individuals store in their memory the lexical orthographic representations that allow them to identify words automatically. This way, it is not necessary for the whole process of decoding to happen (identify each sound of each letter). Hence, when the number of decoded words increases in our brains, the reader is capable of putting together the meaning of those words and understand the meaning of sentences.

However, it is important to mention that this grapheme-phoneme (GTA) correspondence is not always simple, nor the same across languages. As mentioned before, there are some languages considered to have a deep orthography while others have a shallow orthography. For

instance, Turkish and Croatian are languages considered to have shallow orthography because "GTP correspondence is consistent (one-to-one)" (MILLER; KARGIN; GUILDENOGLU, 2012, p.1). On the opposite, deep orthography can be found in English and French because the recognition of written words only through their sounds can be less effective. Digraphs in English are more difficult to recognize only through listening to words. For instance, *oo* in words such as *book*, *look*, and *cook*; will be written by Brazilian children as *buk*, *luk*, and *cuk* because they are likely to confuse the phoneme [ʊ] with the vowel sound [u] of Portuguese. However, when they become more proficient readers, they tend not to commit this type of mistake anymore.

Adams, Foorman, and Beeler (2012) mention that some activities already present in preschool involving rhyme, rhythm, and sounds are ideal in the sense of helping children develop PA. If poorly developed, it causes a huge number of children to manifest difficulty when learning to read. Also, they argue that the PA assessments that preschool children take could predict their future success in reading. They mention some countries in which those tests were taken between 1973 to 1995: England, Sweden, Norway, Spain, France, Italy, Brazil, and Russia. "Additionally, children who had come to understand the concept of phoneme identity in preschool, from whatever source, showed advanced literacy development during their 1st year at school[7]" (BYRNE; FIELDING-BARNSLEY, 1995, p.488-489).

Teachers need to know about language structure and phonology[8] in order to help children develop PA. They also mention that babies tune into the phonemes of their L1 in the first few months of life. When older, beginner readers must learn to separate these phonemes from one another by categorizing them in a way that allows them to understand how the words are written. This explicit and reflective knowledge is called *consciousness phonemic*. They agree that phoneme comprehension is different from innate speech production and reception because the first is not easy to establish in our brains. Moreover, depending on the accent, the number of sounds in a language increases because vowel pronunciations can vary between regions, dialects, and individuals. Therefore, since it is a difficult skill to attain, language games can be useful. The games must be played regularly and replayed until the students' phonological and phonemic awareness have been mastered and can be expanded (ADAMS; FOORMAN; BEELER, 2012).

---

[7] 1st Grade of Primary school (US) or 1º ano do Ensino Fundamental (Brazil).
[8] "Phonology is the study of the unconscious rules that command the production of speech sounds." (ADAMS; FOORMAN; BEELER, 2012, p.21).

Annick De Houwer (1999), a linguist and researcher, mentions that it is extremely important to read to children in order to assist them in memorizing vocabulary and cultural information. Additionally to that, Grosjean (2010) mentions that the people around the child acquiring another language can use their L1 as the basis for teaching or helping her to understand some components of her target language (L2). If a person learns more than one language at the same time, it is important to know which sounds are or are not in the languages, otherwise, words will be mispronounced causing miscommunication.

Fromkin, Rodman, and Hyams (2003) give an example of French people speaking English, in which they would pronounce the words *this* and *that* as *zis* and *zat* since the letters *th* together do not initiate words in French. "Knowing the sound system of a language includes more than knowing the inventory of sounds. It includes knowing which sounds may start a word, end a word, and follow each other" (FROMKIN; RODMAN; HYAMS, 2003, p.5), that is why PA is so important for biliteracy. The speakers may use a similar sound in their stronger language when pronouncing a word they are not aware of the sound or cannot pronounce properly. Therefore, bilinguals usually have a stronger and a weaker language. For instance, "because there is no *z* sound in Norwegian, Norwegians speaking English sometimes say *rosses* instead of *roses*" (GROSJEAN, 2010, p.78-79).

> […] if the second (or weaker) language has two rather similar sounds where the first (stronger) language has only one, the bilingual may fail to distinguish the two sounds and use only one, based in part on the first language. Thus, a French person may use the same sound when pronouncing "hit" and "heat", "rim" and "ream", and so on. (GROSJEAN, 2010, p.78-79)

On the other hand, when talking about children,

> […] bilingual infants have to discriminate more possibilities (there are more speech sounds when there are two languages), but they seem to do so very efficiently. […] if there are many similar sounds (for example, Spanish and Catalan between them have three e sound, as in bet), then bilingual infants may take a bit more time learning to discriminate them appropriately. [...] In short, the literacy skills a student has in one language help the student develop literacy skills in the other. Of course, the extent of the facilitation will depend on the relation between the two languages and their writing systems. Facilitation will be greater between Spanish and English, for example, than between Chinese and English. (GROSJEAN, 2010, p.179, 240-241)

Concerning writing skills, Soares (2016) argues that it is not natural or innate as well, it needs to be taught, different from the spoken language that is always around individuals, hence, they hear and they reproduce it. People need to be aware of the signs (letters and sounds) of languages to know how to read and write properly. Writing depends on the recovery of the

acquired lexical orthographic representations while reading. Therefore, according to Morais (2013), the more children read, the better they will write. "[…] writing is a specific area of language and probably one of the hardest cognitive skills that humans acquire" (GROSJEAN, 2010, p.134). Brentano, Finger, and Ruschel (2019) justify it by saying that our brain was programmed to develop oral language, the brain circuitry had to rewire for reading and writing. Consequently, to understand and develop writing skills our cognitive system had to adapt.

However, according to Grosjean (2010), people can be bilingual and not biliterate, meaning they can speak two languages fluently but are not able to read and write in both languages but only in one. It means they have not developed these skills in their L2. To illustrate his statement, we can take Mila Kunis as an example. She is a bilingual actress, who was born in Ukraine. Mila speaks Russian fluently, but she stated not being able to read in the language. The reason is that she moved to the US when she was 7 – English was the school language of instruction and she was living in an English-speaking country; therefore, outside the classroom, she could listen to the language as well. As a consequence, Mila can speak, read, and write in English very well, her L2, but not in Russian, her L1.

> Many bilinguals have not had to read and write in one or more of their languages and hence have not developed those skills. And even if they do have reading and writing skills in each language, the levels of competence are probably different because their need for those skills is not the same in everyday life. (GROSJEAN, 2010, p.31)

Mila has been living in the US for several years now, consequently, her current dominant language is English, even though the first language she learned to speak was Russian.

In the 1980s, the social practices of reading and writing started to be fundamental in the discussions of several countries. It was when the term *literacy* was created. Also, there is a real interest in elucidating how reading and writing skills are developed in a bilingual and biliterate mind as well as the linguistic competence of those children (BRENTANO; FINGER; RUSCHEL, 2019, p.181). Therefore, according to the *Merrian-Webster* dictionary, the term *biliterate* was invented in 1947.

As previously explained, there are more than one way of becoming bilingual. Being biliterate is not different. There are the ones who "acquire literacy skills in more than one language concurrently" and "Others may develop literacy skills in their L1 and then in an L2 later on in life" (GROSJEAN; LI, 2013, p.103).

Brentano, Finger, and Ruschel (2019) argue that to know how to write properly, the students need to identify in which context words are inserted and which information or message they want to convey when writing.

The vast majority of all words have more than one meaning and writers (and speakers) have only one of these in mind when using a particular word in a specific linguistic expression. Therefore, in reconstructing the meaning of a written sentence, for every word that it contains the reader must select the contextually appropriate meaning and suppress the contextually inappropriate ones (assuming that multiple meanings automatically become available upon word recognition; this in itself is a debatable issue). (GROSJEAN; LI, 2013, p.71)

Taking into consideration that biliterates develop writing strategies simultaneously, it is important to assess those students from "[...] a bilingual perspective, considering that language develops as an integrated system in the bilingual mind" (BRENTANO; FINGER; RUSCHEL, 2019, p.181). Therefore, "A central concern in studies of bilingual writing is the potential transfer of writing skills across languages" (BRENTANO; FINGER; RUSCHEL, 2019, p.102). One of the reasons for this concern is probably because "[...] bilinguals may not achieve the same level of development of such skills and abilities in their various languages" (GROSJEAN; LI, 2013, p.97).

However, the advantages of learning how to read and write in two languages at the same time are that if children develop more complex forms of expressing their ideas in Portuguese, it means they are becoming more proficient while doing it in English as well. Students who have more facility in their L1 while developing literacy, show the same facility in their L2. Consequently, we can assume that the literacy process in both languages produces a linguistic and cognitive increment in the brain because of the natural transfer of knowledge and skills between languages (BRENTANO; FINGER; RUSCHEL, 2019, p.192-202).

With that being said, it was possible to see that without phonological awareness, it becomes more difficult for the student to acknowledge the phonemes while recognizing them in the written words. When the understanding of graphemes linked to phonemes is learned, it seems to be easier for students to become more proficient readers.

In the next chapter, we present our personal account of how the biliteracy process occurs in an international school in Porto Alegre, more specifically, in K5 groups. The objective is to present the school, explain how it works, show the way students are instructed in two languages when learning to read and write, as well as the differences and similarities between English and Portuguese instruction inside the classrooms.

4   AN INTERNATIONAL SCHOOL IN PORTO ALEGRE

Since one of the objectives of this paper is to show the importance of phonological awareness activities for biliterate children, this chapter presents an account of our experience in an international school in Porto Alegre and how language is instructed for K5 students. It is paramount to mention that this school served as the basis for the theme of this monograph, due to the fact that the author works there and accompanies K5 groups.

The school aforementioned is a private American-International school that is accredited by the Ministry of Education-MEC in Brazil. Foreign Teaching Staff (Homeroom Teachers and Teacher Assistants) represent 30% of the group. Students of 14 different nationalities study there, 80% of +430 students are Brazilian and 20% are international students (5% from English-speaking countries). It serves students from the age of 3 in P3 (Pre-Kindergarten) to the age of 17 in G12 (Last year of High School). The school has two campi and the author has had the chance to work on both of them, but her experience is with the youngest ones: P3 (3-year-old children), P4 (4-year-old children), K5 (5 and 6-year-old children), and G1 (6 and 7-year-old children). For a better understanding of how the grade levels function, look at the table below:

Table 3 – Grade Levels

Grade Levels in the International School	Grade Levels in Brazilian schools
P3	Maternal
P4	Jardim A
K5	Jardim B
G1	Primeiro Ano do Ensino Fundamental I
G2	Segundo Ano do Ensino Fundamental I
G3	Terceiro Ano do Ensino Fundamental I
G4	Quarto Ano do Ensino Fundamental I
G5	Quinto Ano do Ensino Fundamental II
G6	Sexto Ano do Ensino Fundamental II
G7	Sétimo Ano do Ensino Fundamental II
G8	Oitavo Ano do Ensino Fundamental II
G9	Nono Ano do Ensino Fundamental II
G10	Primeiro Ano do Ensino Médio
G11	Segundo Ano do Ensino Médio
G12	Terceiro Ano do Ensino Médio

Source: The author (2022).

The following explanations about the schedules are going to be about the Primary levels. From G1 to G5 the students have a very similar schedule to the Brazilian schools, for instance,

History, Geography, Math, Portuguese, Physical Education, and Arts. What differentiates it from a Brazilian school is that all the subjects are taught in English, except *Português* (Portuguese), and also that they have a Unit of Inquiry (UOI) in order to promote group discussions and self-development as human beings. The chart below (Figure 3) shows how UOIs are separated:

Figure 3 – Units of Inquiry

Who we are	Where we are in place and time	How we express ourselves	How the world works	How we organize ourselves	Sharing the planet
An inquiry into the nature of the self, beliefs and values (G5)(G4)(G2)(P3); personal, physical, mental, social and spiritual health (P3, K5, G2, G5); human relationships including families, friends, communities and cultures (G2)(P4)(G3); rights and responsibilities (G1)(G5); what it means to be human (G5)	An inquiry into orientation in place and time (G2) (G5); personal histories(G4)(G1); homes and journeys; the discoveries, explorations (G2) and migrations of humankind(G4); the relationships between and the interconnectedness of individuals and civilizations (G3, G5), from local and global perspectives(G2,G4 ,G5).	An inquiry into the ways in which we discover, K5,P4, P3) and express ideas(G4, G3, P4), feelings(G4, K5, P4, P3), nature, culture(G1), beliefs(G1) and values(G1, G2); the ways in which we reflect(G3, G2) on, extend (G3) and enjoy our creativity (G3,G1); our appreciation (K5)of the aesthetic.	An inquiry into the natural world and its laws (K5); the interaction between the natural world (physical and biological) and human societies (G4, G3, P4); how humans use their understanding of scientific principles (G4, G2, G1); the impact of scientific and technological advances on society and on the environment (G5, G4).	An inquiry into the interconnectedness of human-made systems and communities (P3,G1); the structure and function of organizations (K5,G3, G5); societal decision-making(G5); economic activities (G4) and their impact on humankind(G5, G2) and the environment.	An inquiry into the rights and responsibilities in the struggle to share finite resources with other people and with other living things;(P3, P4, G2, G3, G4) communities and the relationships within and between them(P3, G1, G4); access to equal opportunities (G4), peace and conflict resolution (G5).

Source: School's website (2022)

As the chart shows, the UOIs are separated throughout the grade levels: P3 to G5. They are discussed in specific periods during the week, for instance, K5 studies "How we organize ourselves", shown in Figure 3 as "the structure and function of organizations". Consequently, they study professions and their roles in society. The teachers invite the students' parents to schedule a presentation in which they can talk individually with the group about their jobs. Then, the teachers always propose an activity in which the students need to draw what they learned, for instance, what are the responsibilities of those people, what materials they use to do their jobs, where they work at, etc.

As mentioned before, the focus of this paper is on K5 students and their development; therefore, we are going to explain briefly how their routine works. Every day, the students in K5A have 35 min of writing, 45 min of Portuguese, and 45 min of reading and phonics. In K5B, the students have 45 min of Portuguese every day, 35 min of phonics four times a week, 35 min of reading three times a week, and 25 min of writing three times a week, as we can see in Figures 4 and 5 below.

Figure 4 – K5A's schedule

	Min	Monday	Tuesday	Wednesday	Thursday	Friday
7:50-8:00	10	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork
8:15-8:35	35	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting
8:35-9:20	45	ELA -Writing	PE	ELA -Writing	PE	ELA -Writing
9:20-9:40	20	Snack	Snack	Snack	Snack	Snack
9:40-10:15	35	Math	ELA -Writing	Library with	ELA -Writing	Math
10:15-11:00	45	Portuguese / *HR Planning Time*	Portuguese / *HR Planning Time*	Portuguese / *HR Planning Time*	Portuguese / *HR Planning Time*	Portuguese / *HR Planning Time*
11:00-11:45	45	ELA -Reading/Phonics/**Outside Play 11:25 - 11:45. Ms.** alone	ELA -Reading/ Phonics	ELA -Reading/Phonics/**Outside Play 11:25 - 11:45. Ms.** alone	ELA -Reading/Phonics/**Outside Play 11:25 - 11:45. Ms.** alone	ELA -Reading/ Phonics
11:45-12:15	30	Lunch	Lunch	Lunch	Lunch	Lunch
12:15-12:30	15	Quiet Time - Ms. alone	Quiet Time - Ms alone	Quiet Time - Ms. alone	Quiet Time - Ms. alone	Quiet Time - Ms. alone
12:30-13:15	45	UOI - Ms. alone	Math - Ms. alone	Library with	UOI - Ms. alone	UOI - Ms. alone
13:15-14:00	45	PE	Artistic Ed.	PE	Math	PE
14:00-14:45	45	Counselor Corner	Outside Play. Ms. Lu alone **K5 A/B Planning Time**	Artistic Ed.	Artistic Ed. - *K5 A/B Planning Time*	Outside Play. Ms. alone
14:45-15:15	30	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal
	445					

Source: School's archives (2022)

Figure 5 – K5B's schedule

	Min	Monday	Tuesday	Wednesday	Thursday	Friday
7:50-8:00	10	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork	Arrival/Bellwork
8:15-8:45	45	Morning Meeting	Morning Meeting + UOI	Morning Meeting	Morning Meeting	Morning Meeting + UOI
8:45-9:30	45	Portuguese	Portuguese	UOI	Portuguese	Portuguese
9:30-9:50	20	Snack	Snack	Snack	Snack	Snack
9:50-10:35	45	PE	PE	PE - Ms. with K5B	PE	PE
10:35-11:00	25	ELA - Phonics Workshop - Ms. with K5B	ELA - Phonics	ELA - Phonics Workshop - Ms. with K5B	ELA - Reading - Ms. with K5B	Library with Ms.
11:00-11:25	25	CC	ELA - Reading	ELA - Writing	ELA - Phonics	Library with Ms.
11:30-12:00	30	Playground	Playground	Playground	Playground	Playground
12:00-12:30	30	Lunch	Lunch	Lunch	Lunch	Lunch
12:30-13:00	30	Quiet Time - Ms. alone	Quiet Time - Ms. alone	Quiet Time - Ms. alone	Quiet Time - Ms. alone	Quiet Time - Ms. alone
13:00 - 13:30	30	ELA - Reading	Math	Math	Math	Math
13:30-14:00	30	Playground	ELA - Writing	Playground	Playground	UOI
14:00-14:45	45	Music Room - Ms. with K5B	Music Room - K5 planning time	Portuguese - CC planning time	UOI	Artistic Ed
14:45-15:00	15	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal
	425					

Source: School's archives (2022)

As shown in the timetables above, reading and writing are considered the foundation and basis for students' development as critical citizens from a very early age. To help with that, besides practicing reading in the classroom, students borrow some books to read at home as well, so there are two libraries in the school containing more than 16,000 books (Figure 6 shows a part of the Pre School library). The students have to take home at least four books per week (two in Portuguese and two in English). In K5, this procedure starts to be even more important

since it is when they start to have periods of reading, writing, and phonics in English in their schedule.

Figure 6 – Pre-school library

Source: The author (2022).

The picture does not show all the books nor the titles, but there are some books with more images than words while others are more advanced because we have some K5 students who are more proficient in reading both languages (Portuguese and English). Hence, it is important for them to continue the development of their reading skill as well as learn new vocabulary.

In the next section, we present our personal experience in biliteracy inside K5 groups, the school's aim towards these groups, how K5 is organized their routine with more details, the differences between English and Portuguese instructions as well as literacy in English and Portuguese.

4.1   K5 GROUPS AT AN INTERNATIONAL SCHOOL IN PORTO ALEGRE: AN
         ACCOUNT OF MY PERSONAL EXPERIENCE IN BILITERACY

This section will present our experience inside K5 groups to show how the students are guided throughout the school year in order to learn how to read and write in two languages. Also, it will be shown some differences between Portuguese and English instructions regarding biliteracy.

The aim of the school is for the students to develop oral and written fluency in both English and Portuguese languages – Brazilians and International students. As an intern, we had the chance to attend some classes and observe firsthand how it is conducted and be able to compare the instruction in both languages. In addition, we work 6 hours per day from Monday to Friday at the school. We started working only with K5 and G1 students in January (3 hours inside the classrooms). From April to August, we worked with a P4 group (6 hours in the classroom). Since August, we have been currently working with P3, P4, and K5 (4 hours inside the classroom). We work directly with a Homeroom Teacher, a Teacher Assistant, and the students. Consequently, we help them during their activities, interacting with the students all the time; thus, we not only observe but also contribute to the classes while writing our academic paper.

The school follows the American calendar, thus the school year starts in August and finishes in July of the following year; hence, during February and March, we had a teaching experience with 3 more proficient groups of K5 (around 18 students each) – meaning that the majority of the students were already able to understand most of the alphabet sounds, so they could write sentences either in English and Portuguese.

On the other hand, while writing the present paper, we experienced the beginning of the school year with 2 other groups of students in K5 (17 students each) who were still learning the basics of the English language sounds. They were still not able to produce accurate sentences because they have not seen all the alphabet sounds yet. Some of the classes were only for them to practice how to write the letters they have already learned, as it is possible to see in Figure 7. In other classes, students would try to write sentences they had created using their imagination. The goal of this activity was to write a booklet telling a story students would like to tell, as it is possible to observe in Figure 8.

Figure 7 – Practicing how to write the alphabet letters

Source: The author (2022).

Figure 8 – Booklet telling a story[9]
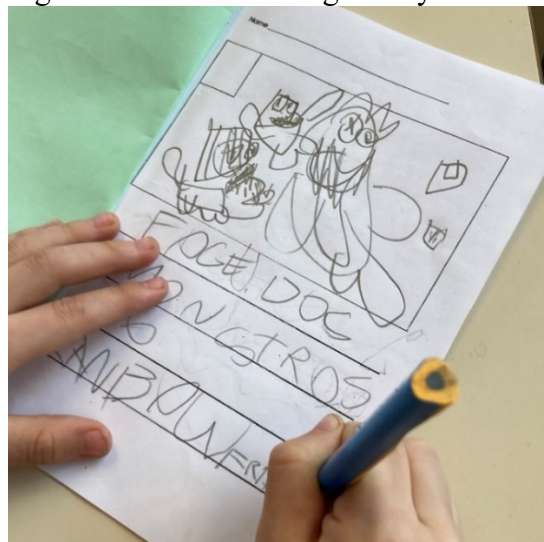
Source: The author (2022).

It is important to mention that K5 students are able to create sentences by the end of the school year whilst most Grade 1 (G1) students are already able to create whole texts. As one would expect, students have different levels of knowledge and skills, but the goal of the school is to make them good readers and writers from a very young age.

Before presenting how English and Portuguese are taught, it is important to look at the table below (Table 4) to have a grasp of the difference between the languages' instruction.

---

[9] The student chose to write in Portuguese, but it was an English instruction class. He wrote "Foge dos monstros do rainbow friends."

Table 4 – Differences between Portuguese and English instruction

Activity	Portuguese	English
Phonics	√ (less than in English, not in a specific period, not every week)	√
Reading	X	√
Writing	√ (being implemented)	√
Culture	√	√
Fine Motor Skills	√	√
Library (2 books per week)	√	√

Source: The author (2022).

As we can see in the table above, both Portuguese and English classes have phonics instruction, however, the focus of the school is for students to spend more time in an English environment and that is what usually happens. As for reading, the students spend some time with English books during their reading periods, but during Portuguese instruction, they have only story time with the teacher reading for them. According to the curriculum, it is mandatory that K5 groups have English writing time every weekday while in Portuguese it is not. However, having said that, since October 2022 it is being implemented in some classes.

Regarding the Portuguese classes, it should be made clear that they focus more on Brazilian culture, such as folklore, *Semana Farroupilha*, among other events; while English classes are much more focused on language learning; however, the pupils learn about American culture as well when there is an approaching festive day, such as *Halloween* and *Thanksgiving* in order to celebrate with the whole school community. In addition, since we are talking about an international school that attends several cultures, there is an event called *International Day* in which the families reunite to bring specific food from different nationalities to celebrate diversity. Also, in regards to cognition, fine motor skills are developed in both English and Portuguese classes, since students need to write, cut, glue, and color.

In the following section, it will be discussed in more detail the differences between literacy in Portuguese and English regarding phonics, reading, and writing instructions. We also present some materials used, such as charts and books as well as some strategies on how to use them with students.

4.2   LITERACY IN ENGLISH VS. LITERACY IN PORTUGUESE AT AN INTERNATIONAL SCHOOL IN PORTO ALEGRE: HOW PHONOLOGICAL AWARENESS ACTIVITIES PLAY A KEY ROLE IN LEARNING TO READ AND WRITE

In this section, it is going to be discussed our experience in 3 K5 groups: what students do, how they organize themselves throughout the lessons in English and Portuguese, and the students' development. Three important topics will be presented: phonics, reading, and writing.

First, it is important to know K5's schedule in order to understand how their routine works. Even though they are only 5 and 6 years old, they already have several activities regarding their academic development. These activities are mainly focused on learning how to read and write. In pre-school, the students are mostly Brazilian, so Portuguese is their L1. However, as mentioned before, they have all the subjects in English except for Portuguese. For those students, English is going to be their L2; however, the school's focus is to teach and guide students so they can become extremely proficient in the English language.

According to teachers who teach in different grades, what happens throughout the school years is that students seem to develop their writing in English much more accurately than they do in their L1. One of the hypotheses is that because students spend 6 hours inside the school and, more than half of these hours, they listen to and speak English, they have much more contact with the English language in an academic environment. Also, since pupils have classmates from English-speaking countries, they also speak the language during snack, lunch, and free play when talking among themselves. The second hypothesis is that K5 students spend much more time developing phonological awareness, reading and writing skills, and their academic background in English. Therefore, the amount of time they are being challenged to produce in their L2 is larger in comparison to their L1.

With regards to writing activities developed at school, K5 groups have a *Writers Workshop* in which the students are challenged to write according to the letters and sounds they already know. At the begging of the school year, they start writing books about stories they would like to tell. For example, some students wrote about unicorns, superheroes, rainbows, etc. In addition, they also write books about how to do something, for instance, how to brush your teeth, how to play a specific game, how to ride a bike, etc.

Some texts are explored throughout the year in the Writers Workshop, such as informative (how to), narrative, true stories, opinion writing, and letters. It starts with each student receiving an alphabet chart containing each letter with a correspondent image in

squares, for instance, the letter A was illustrated in capital letter (A) and lower case (a) with the image of an apple inside a square, showing the student that the word "apple" starts with "a", as it is possible to see in Figure 9 below.
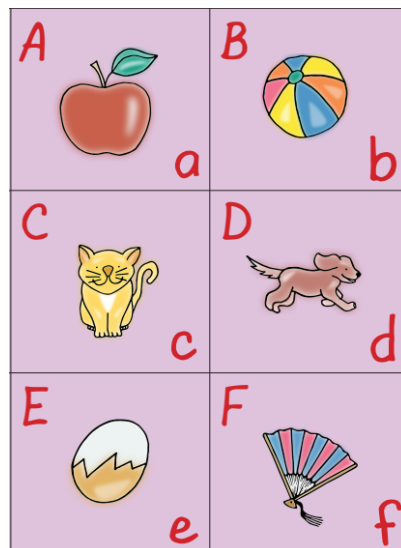
Figure 9 – Alphabet Chart

Source: Units of Study in Phonics (© 2018 by Lucy Calkins and Colleagues;Heinemann: Portsmouth, NH)

This way, when a teacher utters the sound of a letter, the student looks at it and checks its "image" in print in order to write it properly. They usually point to the letter and ask teachers if it is the correct letter to use. This tool is truly useful because, especially at the beginning of the writing process, the students tend to do mirror writing, meaning that, instead of writing the letter S, for example, they write "Ƨ". Thus, by having this visual aid, they end up mitigating this process. Furthermore, instead of teachers putting labels on their drawings - as used to happen in P4; now, in K5, the idea is that students do it themselves. In P4, they would draw something, for instance, their favorite place at school, the teacher would ask them what it was and would help them write the labels: "swings", "slide", etc.

In addition, when it comes to methodology, different from the regular Brazilian schools that use the Whole-word Method[10], this international school uses the Phonics Method[11]. Consequently, in this part of the section, we intend to briefly explain how students learn to read and write using phonics.

At school, during phonics instruction, the students start with the letter "M" as the book *We are Readers* by Lucy Calkins and Natalie Louis suggests, thus there is an alphabet on the wall of their classrooms (Figure 10), in which the teacher puts the respective collaborators' and students' names for the students to make meaningful inferences when learning. For instance, if someone does not know how to recognize the letter "H", they look at the alphabet wall and see the name of a classmate that starts with this letter in order to write the right letter down.

Figure 10 – Letters of the wall alphabet

Source: Units of Study in Phonics (© 2018 by Lucy Calkins and Colleagues; Heinemann: Portsmouth, NH)

In addition to books on phonics and charts with the alphabet, the students receive input from youtube videos for them to listen to and learn new vocabulary from A to Z. The video shown in Figure 11 is part of the school's UOI called "How we organize ourselves". Inside this topic, the professions are explored with the students.

---

[10] A method of reading instruction based on the idea that students should learn and use entire words without focusing on the phonemes that make words. Originally, it was created to help deaf children to read.
[11] Phonics involves matching the sounds of spoken English with individual letters or groups of letters while learning how to read (grapheme-phoneme recognition).

Figure 11 – Youtube video about Community

Source: Bounce Patrol – Kids Songs Youtube Channel (2017)

Also, to help students remember the letter sounds, during phonics instruction, teachers show videos called *Jolly Phonics*, especially the one from the channel *Jyväskylä* in which some children dance for the students to copy their movements and associate with the sound of the letters (Figure 12). By showing the students the sounds and movements, teachers try to help students internalize the process in a fun and easier manner. For instance, the sounds of letters /m/ and /n/ are very similar, therefore as shown below with the letter *n,* teachers try to mime an airplane flying when moving their arms so that students understand what sound teachers are talking about. On the other hand, with the letter *m,* teachers move their hands in a circle in front of their belly saying *hmm* for the students to make a connection with someone feeling hungry or enjoying the food.

Figure 42 – Jolly Phonics:

Source: Youtube: Jyväskylä – Jolly Phonics – all songs and actions (2020)

When almost all the letters and sounds of the alphabet are covered and students are more aware of sounds, teachers start to present some words called *Snap Words*. The aim is to make it easier for students to build sentences.

The words shown in Figure 13 are on a wall inside a classroom and the students also receive a chart containing the same snap words in order to use on their desks. This chart is for them to check the snap words as well as to add more words during their lessons (see Figure 14). The snap words are selected according to their needs. The snap words are usually articles, prepositions, and verbs they use the most to create their books.

Figure 53 – Snap Words on K5 classroom wall
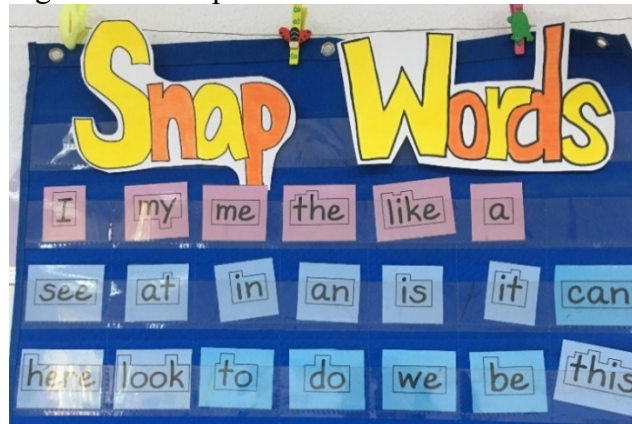
Source: The author (2022).

Figure 14 – Snap Words Chart

Source: Units of Study in Phonics (© 2018 by Lucy Calkins and Colleagues; Heinemann: Portsmouth, NH)

When students are more proficient at writing, they start to study digraphs and also receive a chart with the information as shown in Figure 15 below.

Figure 15 – Blends and Digraphs
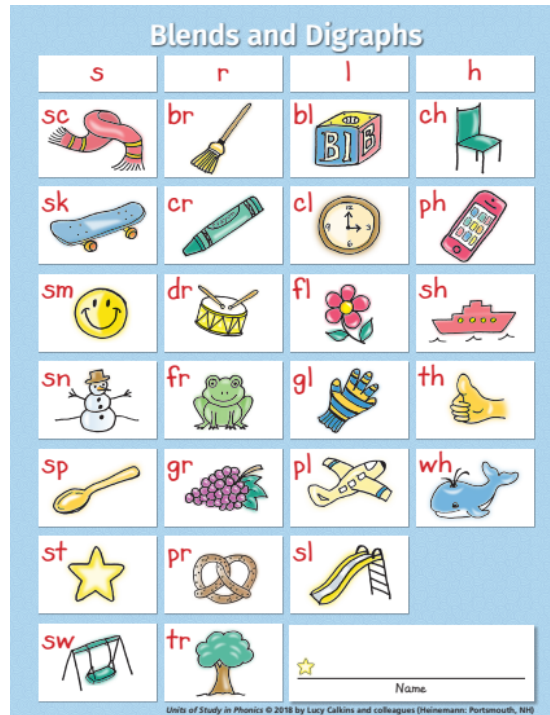
Source: Units of Study in Phonics (© 2018 by Lucy Calkins and Colleagues; Heinemann: Portsmouth, NH)

During reading time, the students listen to a story told by their homeroom teacher from a book previously chosen, and, at other times, they have partner reading – they share a book with a classmate and they try to read it together, as we can see in Figure 16.

At the beginning of the school year, most of the students only pay attention to the images because are not able to read yet – we say most of them because there are exceptions in which they can read all or most words presented in the books. On the other hand, when they are more proficient in the languages, more aware of the grapheme-phoneme combination, they start to actually read the sentences.

Figure 66 – Reading Time with a Partner

Source: The author (2022).

Moreover, in order to help the students with their phonological and phoneme awareness, there are some books they read inside the classrooms during *Readers Workshop*. Figure 17 illustrates *Jake Bakes a Cake* focusing on the suffix *-ake*, so the students learn some words that end with the same sound (rhyme). In the end, there are some activities teachers can choose to do so students can test their knowledge.
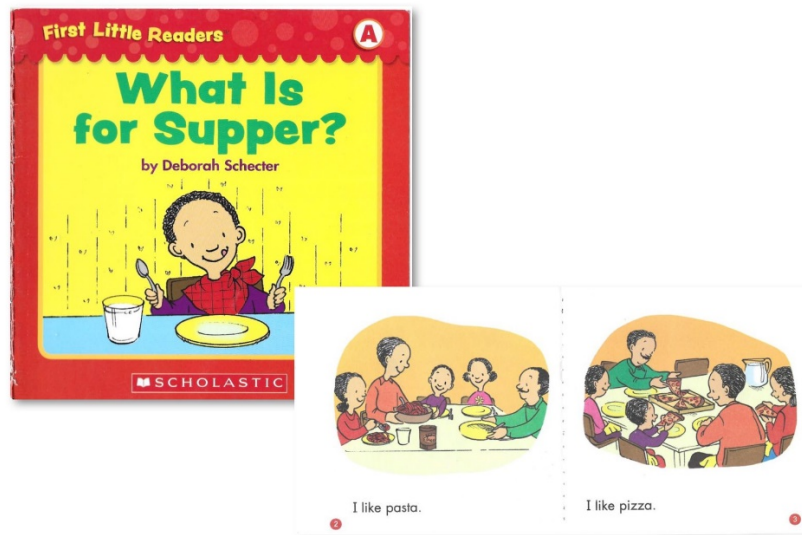
Figure 77 – Book: Jake Bakes a Cake

Source: The author (2022).

Figure 18 illustrates *What is for Supper?*. It shows some sentences beginning in the same way but ending with a different word, so the students can make inferences between images and words while learning new vocabulary.
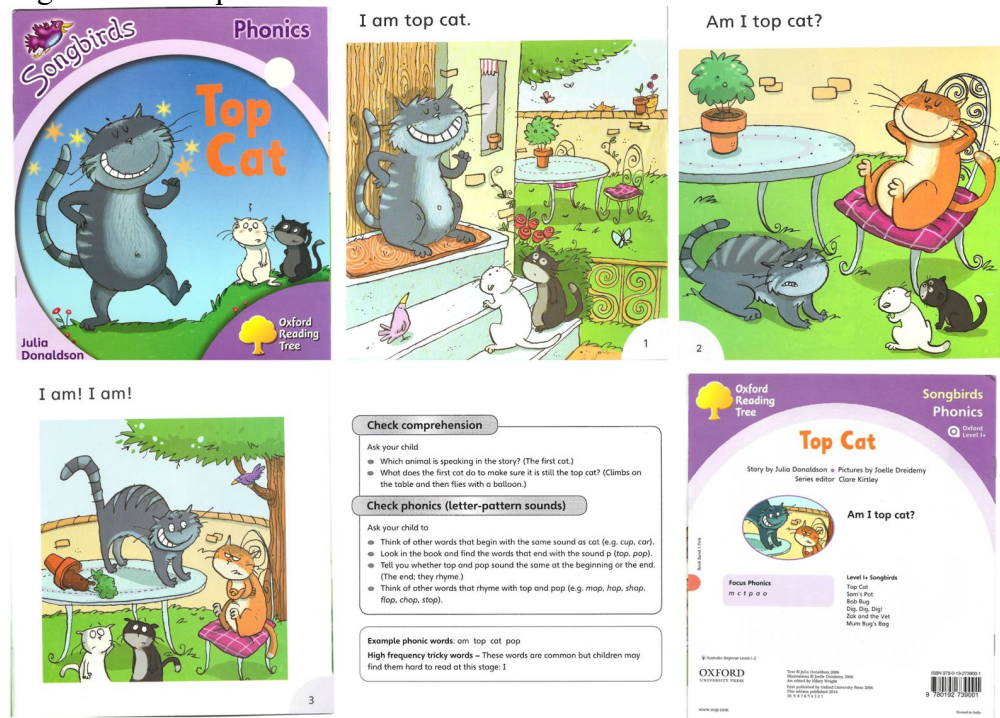
Figure 88 – What is for Supper?

Source: The author (2022).

Lastly, Figure 19 shows the book *Top Cat*. It is from a collection called *Phonics*. Some target sounds are presented in each book and the goal is to help students identify those sounds while reading.

Figure 19 – "Top Cat"

Source: The author (2022).

Throughout the school year, one can perceive, that those books and activities make a difference in students' development since they can learn through images and repetition of sounds, and the use of easy vocabulary.

As mentioned before, Portuguese is usually kindergartners' L1 since most of them are Brazilian but we also have some international students who have Portuguese as their L2 or even L3. In the following paragraphs, we are going to discuss Portuguese instruction in K5 groups: similarities and differences from English instruction.

In terms of Portuguese instruction, the teacher presents to the students the sounds of the letters in Portuguese. They are mostly the same letters and presented in the same order as they are studying with their English teacher. However, since students are being taught how to read and write in a language that uses the same alphabet letters (except for *y* and *w* (in the English alphabet only), and *ç* (in the Portuguese alphabet only), the pupils, sometimes, confuse not the letters, but the sounds. For example, some students find it hard to identify when to use *e* and *i* in English/Portuguese.

With regards to methods and methodologies, since the beginning of the school year (August, 2022), the school board have been implementing new methods of teaching the students through the ideas presented in a book called *Biliteracy from the Start* by Escamilla *et al.*, which explains more about simultaneous bilinguals. "For these children, traditional models of

sequential biliteracy, as used in many bilingual education programs, do not make any sense; for, as Merrill Swain pointed out in 1972, bilingualism (and not English or Spanish) is their first language. (ESCAMILLA *et.al.*, 2014, p. xi).

The book discusses *paired literacy*, which focuses on cross-language connections to make it easier for students to acquire both languages. The curriculum must have oracy, reading, writing, and metalanguage. Therefore, the Portuguese teachers have also started to challenge the students to write stories in Portuguese. The pupils received a Portuguese alphabet chart in which they can look for the letters by looking at the pictures, as shown in Figure 20.

Figure 920 – Portuguese Alphabet Chart
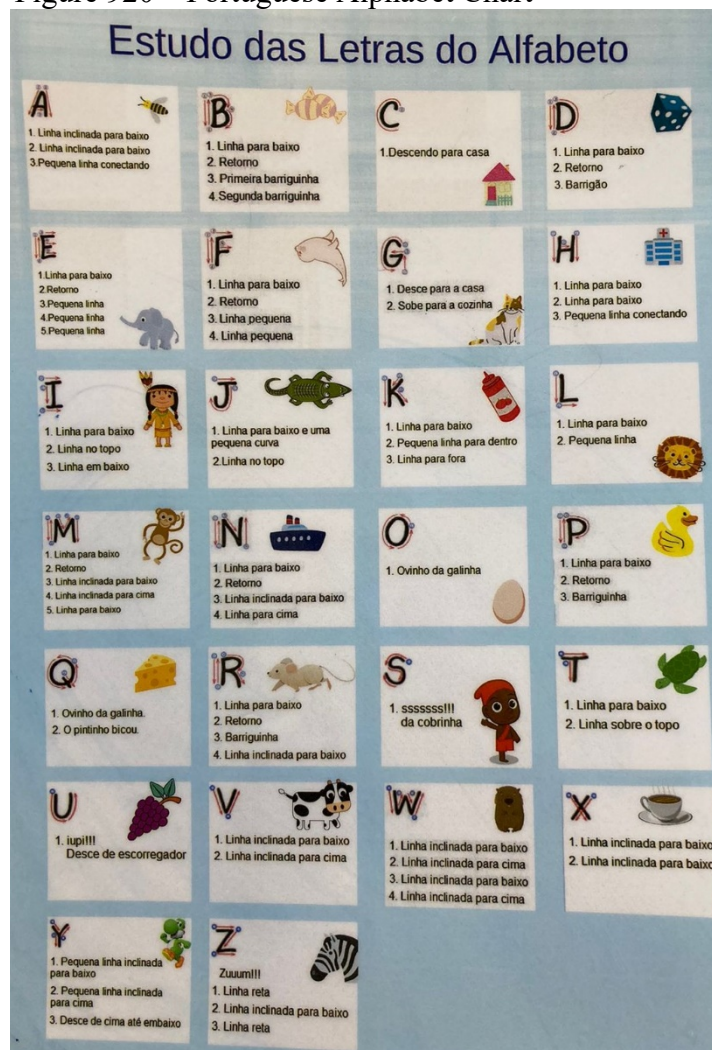
Source: Portuguese teacher (2022).

The first lesson we observed was about *Folklore* because the students had already seen all the *Lendas Folclóricas* and were able to talk about them in a book made by themselves. As

it is possible to see in picture 21, the students started to label their drawings: one student wrote *Iara*, the mermaid, and the other wrote *Lobisomem*.

Figure 2110 – Writing in Portuguese: Lendas do Folclore
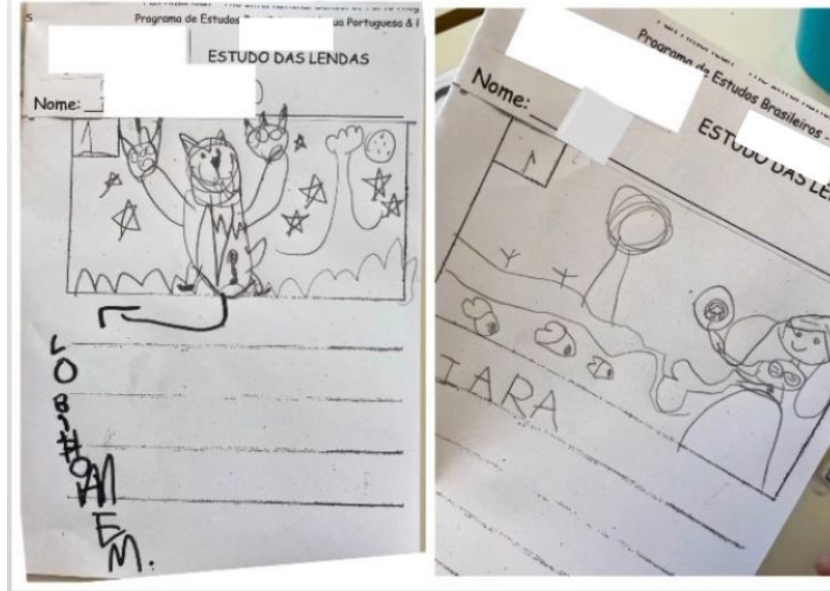
Source: The author (2022).

In the following class, the goal was for students to write some sentences in Portuguese. They did not need to create a story but they had to tell what they already knew about the character they picked. The teachers helped students to write the words using the chart (Figure 20) and told them the Portuguese sounds of each letter. Therefore, as we can see, Phonics is used to instruct the students both in Portuguese and English.

Finally, we would like to state that after analyzing the books and activities used with K5 students, we are positive that the development of phonological awareness is crucial in the biliteracy process. As we could see in chapter 3, reading is the act of processing text in order to derive meaning. To learn to read, children must develop both fluent word reading and language comprehension. However, to be able to comprehend what is written, students have to first be able to decode. Fluent word reading stems from underlying skills: phonological awareness, phonics and decoding, and automatic word recognition. With the use of the activities presented in this paper (and used at the school), we firmly believe that students are well-equipped to develop their reading skills to the fullest.

In the following section, we revisit the objectives and methodology of the present paper, as well as our final considerations, limitations, and suggestions for future research.

5 FINAL CONSIDERATIONS

Studies on biliteracy have gained increasing attention recently, mainly due to the visibility that child bilingualism and bilingual education have received in the world and also in Brazil in the past decade. There are several communities in the world in which children are growing up bilingual and literate in two or more languages (REYES, 2012), which has increased the need for more investigation on the topic. There is real interest in understanding how the development of reading and writing occurs when literacy involves more than one language, as well as in measuring the consequences of such experience on both cognitive and linguistic development in these children.

In Brazil, the most widespread form of bilingual education is mainly anchored in the principles of prestige or elite bilingualism, which occurs when both languages are valued at school and in the community (MEGALE, 2019).

As stated before, studies related to bilingualism and biliteracy conducted from a Psycholinguistics perspective in Brazil are scarce, let alone studies involving the importance of phonological awareness for biliteracy. Psycholinguistics of Bilingualism is an area of research that aims to investigate the underlying linguistic and cognitive mechanisms that make individuals able to learn, process, and use more than one language (AZEVEDO ET AL, 2017).

The reason why we decided to investigate bilingual education and biliteracy was due to the fact that we had the chance to experience it first-hand inside the classrooms while working in an international school focused on biliteracy (Portuguese and English). Therefore, the children's processes were discussed in section 4. Additionally, as we could perceive, there is still a need for research on the topic because it is a new field in Brazil, as it was possible to understand in chapter 3.

With that in mind, we revisit here the objectives of the present paper. The main objective was to investigate the process of biliteracy in two K5 groups in an international school in Porto Alegre. As for the specific objectives, we intended (1) to present an overview of bilingualism and bilingual education, (2) to investigate the importance of phonological awareness activities regarding biliteracy (Portuguese and English), and (3) to present a comparison between literacy in English versus literacy in Portuguese at an international school in Porto Alegre.

We now address our research questions and try to answer them using chapters 2, 3, and 4 as the basis for our findings. As for question (1) "What is bilingualism and bilingual education?" this question was answered in the second chapter. Bilingualism is the skill of being able to speak more than one language in various contexts. Grosjean (2013) adds that

bilingualism is a dynamic and interactive experience, characterized by individual and context factors, corroborating the idea that there is no right or defined point that we can mark as a transition from mono to bilingualism. In regards to bilingual education, the expression 'Bilingual Education' has already been used in numerous contexts to refer to distinct educational models, a fact that has brought ambiguity to the term. One of the classic definitions, by Anderson and Boyer (1970), presents bilingual education as instruction in two languages and the use of these two languages as a means of instruction for some or all of the school curriculum. When it comes to bilingual education in Brazil, recently, the National Curriculum Guidelines for Multilingual Education[12] were discussed and formulated (yet to be homologated) in order to organize and define what characterizes a bilingual school in Brazil, differentiating it from schools with an Extended Curriculum in Additional Language and from International Schools.

As for the second question, (2) What is the importance of phonological awareness activities when learning to read and write in two languages?" it was answered in chapter three. Phonological awareness is fundamental because it facilitates the process of learning how to read and write. Furthermore, it is essential for reading because written words correspond to spoken words. Readers must have awareness of the speech sounds in order to move from a printed word to a spoken word (reading), or a spoken word to a written word. As seen in chapter 3, awareness of the sounds in spoken language is required to learn letter-sound correspondences; to blend sounds together to decode a word; and to "map" words into long-term sight vocabulary. Children who learn those skills through PA can become more proficient readers because they are able to connect a grapheme (letter) to a phoneme (sound) and ultimately learn how to "decipher" the code. Finally, concerning pedagogical implications to that matter, teachers teaching children how to read and write in two languages need to take into consideration that early phonological skills include awareness of syllables and onset-rime segments. Later, children develop the ability to blend and segment individual phonemes. Advanced phonemic awareness includes the ability to manipulate phonemes by substituting, reversing, and deleting phonemes and continues to develop into third grade and beyond (TEIXEIRA; AZEVEDO, 2021).

Lastly, for question 3 "How can we compare the processes involving literacy in English and Portuguese at an international school in Porto Alegre? the answer was addressed in the fourth chapter and was summarized in Table 6. We showed that both languages are used and

---

[12] http://portal.mec.gov.br/docman/setembro-2020-pdf/156861-pceb002-20/file

explicitly taught inside the classroom, however, Phonics' activities have just started to be implemented in Portuguese classes, in contrast to their permanent and long-lasting use in English classes. In addition, it was possible to notice that English seems to be the main goal of the school since students have more time of instruction in English than in Portuguese inside the classroom.

Regarding the limitations of this paper, apart from time constraints, we highlight that in order to investigate the role of phonological awareness in biliterate pupils more accurately students should have been tested. By applying a pre and post-test it would have been possible to measure students' knowledge at the beginning of the school year and at the end of it. However, it was not possible to test them during this research, due to time and legal constraints.

Consequently, for further research, we would like to put that idea into practice and turn the present paper into exploratory research, with actual data collection and analysis of the results. By doing so, we believe that we can contribute even more to this field of research.

Finally, despite its limitations, we believe our paper provides an important contribution to a better understanding of bilingual children's reading and writing development in L1 and L2 and the role of phonological awareness activities in the context of prestige bilingual education in Porto Alegre.

REFERENCES

ABBOTT, David. What brain regions control our language? And how do we know this? *The Conversation,* 25 sep. 2016. Available in: https://theconversation.com/what-brain-regions-control-our-language-and-how-do-we-know-this-63318. Accessed in: Nov. 13, 2022.

ABUTALEBI, Jubin; GREEN, David. Control Mechanisms in Bilingual Language Production: Neural Evidence from Language Switching Studies. **Language and Cognitive - Processes**, vol. 23, p. 557-582, 2008.

ADAMS, Marylin. J.; FOORMAN, Bárbara. R.; LUNDBERG, Ingvar.; BEELER, Terri. **Consciência Fonológica em crianças pequenas**. Porto Alegre: Artmed, 2012.

ALPHABET Occupations – ABC Jobs Song for Kids | Learn the alphabet phonics with Jobs & Occupations. [*s. l.*], 2017. 1 video (3min53s). Published by Canal Bounce Patrol - Kids Songs. Available in: https://www.youtube.com/watch?v=r6Oxqyd5qUw&t=3s. Accessed on: 17 Sep. 2022.

ANDERSON, Theodore.; BOYER, Mildred. *Bilingual schooling in the United States.* Austin: Southwest Educational Development Laboratory. v. 1. 1970.

AZEVEDO A. F.; BUCHWEITZ, A.; ESPER, N.; COSTA, A.; FRANCO, A. *Neuroimagem funcional na dislexia do desenvolvimento em bilíngues de ortografias opacas e transparentes*. In: Jerusa Fumagalli de Salles; Ana Luiza Navas. (Org.). Dislexias do desenvolvimento e adquiridas. 1ed.São Paulo: Pearson. v. 1, p. 197-211. 2017.

BAKER, Colin. **Foundations of Bilingual Education and Bilingualism.** Great Britain: Biddles Ltd., 2001.

BIALYSTOK, Ellen. Bilingualism: Psychologist Ellen Bialystok on simultaneous learning of different writing systems, cognitive reserve, and multilingualism. **Serious science**, Jul. 11 2016. Available in: http://serious-science.org/bilingualism-6172/. Accessed on: 30 Jun. 2021.

BILITERATE**.** *In:* MERRIAM-Webster.com Dictionary, Merriam-Webster, 1994. Available in: https://www.merriam-webster.com/dictionary/biliterate. Accessed on: 4 Jul. 2022.

BLOOMFIELD, Leonard. **Language.** Great Britain: Compton Printing LTD, 1933.

BOSCH, Laura; SEBASTIÁN-GALLÉS, Núria. Simultaneous Bilingualism and the Perception of a Language-Specific Vowel Contrast in the First Year of Life. **Language and Speech**, [*s. l*], p. 217-243, 2003.

BRENTANO, Luciana.; FINGER, Ingrid. Biliteracia e educação bilíngue: Contribuições das Neurociências e da Psicolinguística para a compreensão do desenvolvimento da leitura e escrita em crianças bilíngues. **Letrônica**, [*s. l*], v. 13, n. 4, p. e37528, 8 Oct. 2022.

BRENTANO, Luciana de Souza; FINGER, Ingrid; RUSCHEL, Daniela. E quando a alfabetização ocorre simultâneamente em duas línguas? Reflexões sobre o biletramento a

partir da análise de textos de crianças bilíngues. **ReVEL**, [*s. l*], Vol. 17, n. 33, 2019. Available in: www.revel.inf.br Accessed on: Oct. 10 2022.

BYRNE, Brian; FIELDING-BARNSLEY, Ruth**. Evaluation of a Program to Teach Phonemic Awareness to Young Children:** A2- and 3-Year Follow-up and a New Preschool Trial. University of New England. **Journal of Educational Psychology**, New England, v. 87, n. 3, p. 488-503, 1995. DOI: https://doi.org/10.1037/0022-0663.87.3.488. Available in: https://psycnet.apa.org/fulltext/1996-12857-001.html.

CALKINS, Lucy; LOUIS, Natalie. **We Are Readers**. Portsmouth: NH. Heinemann, 2015.

CAMBRIDGE ASSESSMENT INTERNATIONAL EDUCATION. **Bilingual learners and bilingual education.** Cambridge, 2017. Available in: https://www.cambridgeinternational.org/Images/271190-bilingual-learners-and-bilingual-education.pdf. Accessed on: 2 Nov. 2022.

CASTRO, Tamara. **Língua de Sinais e Educação Inclusiva.** *Cenpec*, 2019. Available in: https://www.cenpec.org.br/noticias/linguas-de-sinais-e-educacao-inclusiva. Accessed on: 2 Nov. 2022.

Charlemagne [SHWAYDER, Maya]. **Change languages, shift responses**: Study of bilinguals suggests such switches can help to shape preferences. The Harvard Gazette, November 2, 2010. Available in: https://news.harvard.edu/gazette/story/2010/11/change-languages-shift-responses/. Accessed on: Nov 2, 2022.

COLTHEART, M. Modeling reading: the dual-route approach. *In*: SNOWLING, Margaret J.; HULME, Charles (Eds.). **The science of reading: a handbook**. Oxford: Blackwell. p. 6-23. 2013.

DE BRUIN, Angela. Not All Bilinguals Are the Same: a call for more detailed assessments and descriptions of bilingual experiences. **Behavioral Sciences,** 24 Mar. 2019. DOI: https://doi.org/10.3390/bs9030033. Available in: https://www.mdpi.com/2076-328X/9/3/33/htm. Accessed on: Oct. 30 2022.

DE HOUWER, Annick. **Two or More Languages in Early Childhood:** Some General Points and Practical Recommendations. Washington, D.C., USA. *Center for Applied Linguistics*, 1999.

DEHAENE, Stanislas. **Os neurônios da leitura:** como a ciência explica a nossa capacidade de ler. Porto Alegre: Penso, 2012.

ESCAMILLA, Kathy. *et al.* **Biliteracy from the Start**. Philadelphia, PA, US. Caslon, Inc., 2014.

FINGER, Ingrid; BRENTANO, Luciana de Souza; RUSCHEL, Daniela. E quando a alfabetização ocorre simultâneamente em duas línguas? Reflexões sobre o biletramento a partir da análise de textos de crianças bilíngues. **ReVEL.** Vol. 17, n. 33, 2019. Available on: www.revel.inf.br

FROMKIN, Victoria.; RODMAN, Robert.; HYAMS, Nina. **An Introduction to Language**. Massachusetts, USA. *Wadsworth*, a part of *Thomson Corporation*, 2003.

GROSJEAN, François. **Bilingual**: Life and Reality. CambriUS and England. *Harvard University Press*, 2010.

GROSJEAN, François. **Studying Bilinguals**. New York, US. *Oxford University Press Inc.*, 2008.

GROSJEAN, François. (Ed.). **Bilingualism**: a short introduction. In: GROSJEAN, François; LI, Ping. **The Psycholinguistics of Bilingualism**. Chichester, UK. *Blackwell Publishing Ltd*, 2013. p. 13-20.

GROSJEAN, François; LI, Ping. **The Psycholinguistics of Bilingualism**. *In*: GROOT, Annette de. (Ed.). *Reading*. Chichester, UK. Blackwell Publishing Ltd, 2013. p. 71.

HEDLUND, André. **Bilingual Education in Brazil – Part 2:** History of Education and English Teaching. *EDC rocks*, 2021. Available in: https://edcrocks.com/2021/05/03/bilingual-education-in-brazil-part-2-history-of-education-and-english-teaching/. Accessed on: Sep. 8 2022.

HOEXTER, Flavia Queiroz. Educação bilíngue na educação infantil. **Revista Intercâmbio**, São Paulo, v. XXXV: 18-37, 2017.

INTA EDUCATION. **International Schools and Bilingual Schools. What's the difference?**. [*s. l.*], c2020. Available in: https://inta-edu.com/2018/02/21/international-schools-and-bilingual-schools-whats-the-difference/#:~:text=Bilingual%20schools%20differ%20to%20international,class%2C%20especially%20when%20teaching%20English. Accessed on: Nov. 12 2022.

JOLLY Phonics – all songs and actions. [*s. l*], 2020. 1 video (11min34s). Published by Jyväskylä. Available in: https://www.youtube.com/watch?v=xzBoqtayewI&t=92s. Accessed on: 17 Sep. 2022.

KAUFMAN, Anna. What is the most spoken language in the world 2022? *In:* ASSOCIATION FOR LANGUAGE LEARNING. **News,** [*s. l*], 2022. Available in: https://www.all-languages.org.uk/news/what-is-the-most-spoken-language-in-the-world-2022. Accessed on: 10 Oct. 2022.

KORENAR, Michal; TREFFERS-DALLER, Jeanine; PLIATSIKAS, Christos. **Two languages in one mind:** insights into cognitive effects of bilingualism from usage-based approaches. University of Reading, UK; Universidad Nebrija, Spain, 2020.

LANE, James. The 10 Most Spoken Languages in The World. **Babbel Magazine,** [*s. l*], Jun. 2 2021. Available in: https://www.babbel.com/en/magazine/the-10-most-spoken-languages-in-the-world. Accessed on: Sep. 8 2022.

LEARNING English in Brazil: Understanding the aims and expectations of the Brazilian emerging middle classes. **British Council**. São Paulo, p. 9, 2014.

MANCHÓN, Rosa. (Ed.). **Writing.** *In*: GROSJEAN, François; LI, Ping. The Psycholinguistics of Bilingualism.Chichester, UK: Blackwell Publishing Ltd, 2013, p. 97-103.

MARCELINO, Marcello. Bilinguismo no Brasil: significado e expectativas. **Revista Intercâmbio,** São Paulo, vol. XIX: 1-22, 2009.

MARISTAS, Colégios. Qual a diferença entre escola bilíngue e escola internacional? **G1,** [*s*. l], 2019. Available in: https://g1.globo.com/pr/parana/especial-publicitario/colegios-maristas/onde-os-jovens-estao/noticia/2019/07/26/qual-a-diferenca-entre-escola-bilingue-e-escola-internacional.ghtml. Accessed on: 2 Nov. 2022.

MEGALE, Antonieta; LIBERALI, Fernanda. Caminhos da educação bilíngue no Brasil: perspectivas da linguística aplicada. **Raído**, Dourados, MS, v. 10, n. 23, p. 9-24, jul./dez. 2016. Available in: http://ojs.ufgd.edu.br/index.php/Raido/article/view/6021/3170

MEGALE, Antonieta. Educação bilíngue de línguas de prestígio no Brasil: uma análise dos documentos oficiais. **The Especialist**, v. 39, n. 2, 2018. Available in: https://revistas.pucsp.br/esp/article/view/38653 Accessed on: 10 Sep. 2022.

MEGALE, Antonieta. **Educação Bilíngue no Brasil.** Fundação Santillana, São Paulo, 2019. Available in: https://www.academia.edu/40556216/Educa%C3%A7%C3%A3o_Bil%C3%ADngue_no_Brasil. Accessed on: Nov. 25, 2022.

MILA Kunis Thinks Russian Sounds Like Klingon | CONAN on TBS. [*s. l*], 2013. 1 video (4min8s). Published by Team Coco. Available in: https://www.youtube.com/watch?v=sJhPa4lMLDo&t=4s. Accessed on: 9 Jul. 2022.

MILLER, Paul; KARGIN, Tevhide; GULDENOGLU, Birkan. Differences in the reading of shallow and deep orthography: Developmental evidence from Hebrew and Turkish readers. **Journal of Research in Reading**, 2012. 00. 1-24. 10.1111/j.1467-9817.2012.01540.x.

MORAIS, José. **Criar Leitores para professores e educadores**. Barueri, SP: Editora Manole LTDA, 2013.

MOURA, Selma. **Brazil Week:** Bilingual education in Brazil: a historical moment with new regulations. CAMBRIDGE, 2021. Available in: https://www.cambridge.org/elt/blog/2021/05/27/bilingual-education-brazil-historical-moment-new-regulations. Accessed on: 8 Sep. 2022.

MOURA, Selma. **As it happens with all Latin-American countries, Brazil has been formed by multiple waves of immigrants who joined the native population for over 5 centuries.** Each immigrant brought their own language and culture and did their best to preserve it at the same time as they learned Portuguese, the language that became official. *Cambridge*, 2021. Available in: https://www.cambridge.org/elt/blog/2021/05/27/bilingual-education-brazil-historical-moment-new-regulations/. Accessed on: 27 May 2021.

NATIONAL Center on Improving Literacy (2022). **Phonological Awareness**: What Is It and How Does It Relate To Phonemic Awareness. Washington, DC: U.S. Department of

Education, Office of Elementary and Secondary Education, Office of Special Education Programs, National Center on Improving Literacy.

OLIVEIRA, Luciana; HOFLING, Camila (Ed.). **Bilingual Education in Brazil.** *In:* RAZA, Kashif.; COOMBE, Christine.; REYNOLDS, Dudley. **Policy Development in TESOL and Multilingualism:** Past, Present and the Way Forward.Singapore. Springer Nature Singapore Pte Ltd., 2021.

ORGANIZAÇÃO DAS ESCOLAS BILÍNGUES (OEBi). **Estatuto**, [*s.l*]. Available in: https://www.oebi.com.br/estatuto. Accessed on: 2 Nov. 2022.

PAN AMERICAN International School of Porto Alegre. **UOIs,** [*s.l*]. Available in: https://panamerican.com.br/en/learning/primary-school/. Accessed on: 29 Sep. 2022.

REYES, Iliana. **Biliteracy among children and youths**. *Reading Research Quarterly*, v.47, n.3, p.307-327. 2012.

RUGBY SCHOOL THAILAND. **International schools vs bilingual schools:** What's the difference? Thailand, c2020. Available in: https://www.rugbyschool.ac.th/international-schools-vs-bilingual-schools. Accessed on: Nov. 12, 2022.

SHAYWITZ S., SHAYWITZ J. **Overcoming dyslexia**. 2nd edition; New York: Alfred A. Knopf. 2020.

SOARES, Magda. **Alfabetização:** a questão dos métodos. São Paulo: Contexto, 2016.

TEIXEIRA, Mariana Terra, AZEVEDO, Aline Fay. **Teorias Neurocognitivas de Aprendizagem da Leitura e Métodos de Alfabetização**. Letrônica, 14(2), 2021.

UNIVERSITY SYSTEM OF GEORGIA. **A Brief History on the Internet**, [*s.l*]. Available in: https://www.usg.edu/galileo/skills/unit07/internet07_02.phtml. Accessed on: 8 Sep. 2022.

VAID, Jyotsna *et al*. Wallace E. Lambert (1922-2009). **The American psychologist**, [*s. l*], v. 65, n. 4, p. 290-291, 2010.

WHAT is Phonics? **National Literacy Trust**, [*s. l*]. Available in: https://literacytrust.org.uk/information/what-is-literacy/what-phonics/#:~:text=Phonics%20involves%20matching%20the%20sounds,words%20by%20sounding%20them%20out. Accessed on: 2 Oct. 2022.

WHOLE-word Method. **American Psychological Association**, [*s. l*]. Available in: https://dictionary.apa.org/whole-word-method. Accessed on: 2 Oct. 2022.

WITTGENSTEIN, Ludwig. **Tractatus Logico-Philosophicus**. New York and London: Routledge Classics. P.68, 2002.

ZIMMER, Márcia.; FINGER, Ingrid.; SCHERER, Lilian. Do bilinguismo ao multilinguismo: intersecções entre a psicolinguística e a neurolinguística. **ReVEL**, [*s. l*], Vol. 6, n. 11, agosto de 2008. Available: www.revel.inf.br.