

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL – UFRGS**  
**INSTITUTO DE LETRAS**  
**PROGRAMA DE PÓS-GRADUAÇÃO EM LETRAS**

**ALINE CASAGRANDE ROSSO**

**TESTING WHETHER SKIMMING INSTRUCTION, COGNATE QUANTITY, AND  
TEXT GENRE AFFECT READING IN THE L2: AN EXPERIMENT CONDUCTED  
WITH ADOLESCENTS FROM TWO PUBLIC SCHOOLS LOCATED IN SOUTHERN  
BRAZIL**

**PORTO ALEGRE**

**2024**

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**LINHA DE PESQUISA: PSICOLINGUÍSTICA**

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Orientadora: Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes.

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Aprovado em: 23 de fevereiro de 2024.

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*I dedicate this work to my uncle João Rosso,  
aka “tio João” (in memoriam). He could not  
speak Portuguese or English, but he mastered  
the love language.*

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*My hope is, in due course, research on teaching, psychology, and neuroscience will merge into a single, unified science of reading. Only collective and rigorous exploration will allow us to arrive at constructive solutions and interesting pedagogical advances.*

Stanislas Dehaene

## Abstract

This study aimed at understanding how a pre-reading metacognitive strategy – skimming – would influence the reading performance of eighth and ninth graders from two public schools located in the South of Brazil. Skimming implies a quick analysis of salient words, figures, and activation of stored memories on the topic of the text (Rayner et al., 2016). The specific objectives were to compare the participants' scores on the reading of two different text genres: fable and news, which contain different structures, vocabulary, syntax patterns, and thus levels of processing (Denton et al., 2015). Additionally, we wanted to verify whether the number of cognates would influence reading processing in their second language (L2). Cognates are words that have similar form, sound and meaning across languages (Marian et al., 2022). Therefore, three main hypotheses were raised: i) participants would show a better performance after the skimming instruction; ii) they would show a better performance on the fable, since it has more syntactic consistency; iii) they would show a better performance on the texts that contained a larger number of cognates ( $n = 15$ ), compared to the texts with less cognates ( $n = 06$ ).

Participants were adolescents ( $n = 112$ ) learning English as a second language. Students executed a *cloze* test (Joly et al., 2014): they filled in the spaces with the word they considered adequate after analyzing the context. Data were inserted on SPSS and a  $2 \times 2 \times 2 \times 2$  ANOVA was executed. Results did not show an effect of instruction. Due to that, both groups were united. A new analysis was conducted, using the data from the pretest. We considered as variables genre and cognate quantity. The  $2 \times 2$  ANOVA showed a main effect of cognate quantity, indicating that the texts that contained more cognates were processed more easily by participants. It was also found an effect of genre, in which participants scored higher in the news compared to the fables. In addition, a significant interaction was also found. The analysis of the within genres *t*-

test showed a cognate quantity effect for both fables and news. Thereby, participants performed better in the news and fables that had more cognates compared to the news and fables that had less cognates in the text. In the *t*-tests that were executed between genres, there was difference in the texts that contained fewer cognate words. In this case, participants scored higher in the news articles compared to the fables. On the other hand, no difference was found in the texts that had more cognates. In other words, we suggest that the presence of more cognates eliminated the difference between the genres or equated the level of difficulty between them. Those findings, their implications, and the study limitations are discussed.

**Keywords:** skimming; cognate quantity; text genres; L2 reading; public school.

## Resumo

Este estudo teve como objetivo entender como uma estratégia metacognitiva de pré-leitura - o *skimming* - poderia influenciar o desempenho de leitura de alunos do oitavo e nono ano de duas escolas públicas localizadas no sul do Brasil. O *skimming* prevê uma análise rápida de palavras, figuras e ativação de memórias armazenadas sobre o tópico do texto (Rayner et al., 2016). Os objetivos específicos eram comparar os acertos dos participantes na leitura de dois gêneros diferentes de texto: fábula e notícia, que contêm estruturas, vocabulário, padrões de sintaxe e, conseqüentemente, níveis de processamento diferentes (Denton et al., 2015). Além disso, queríamos verificar se o número de cognatos influenciaria o processamento da leitura em sua segunda língua (L2). Cognatos são palavras que têm forma, som e significado semelhantes entre as línguas (Marian et al., 2022). Portanto, três hipóteses principais foram levantadas: i) os participantes mostrariam um melhor desempenho após a instrução do *skimming*; ii) eles teriam um melhor desempenho na fábula, já que ela possui mais consistência sintática; iii) eles mostrariam um melhor desempenho nos textos que contivessem um número maior de cognatos ( $n = 15$ ), em comparação com os textos com menos cognatos ( $n = 06$ ). Os participantes eram adolescentes ( $n = 112$ ) aprendendo inglês como segunda língua. Os alunos realizaram um teste de *cloze* (Joly et al., 2014): eles preencheram os espaços com a palavra que consideravam adequada após analisar o contexto. Os dados foram inseridos no SPSS e uma ANOVA  $2 \times 2 \times 2 \times 2$  foi realizada. Os resultados não mostraram um efeito da instrução. Por isso, ambos os grupos foram unidos, e uma nova análise foi conduzida, usando os dados do pré-teste. Consideramos como variáveis o gênero e a quantidade de cognatos. A ANOVA  $2 \times 2$  mostrou um efeito principal de quantidade de cognatos, indicando que os textos que continham mais cognatos foram processados mais facilmente pelos participantes. Também foi encontrado um efeito de

gênero, no qual os participantes tiveram mais acertos nas notícias em comparação com as fábulas. Além disso, uma interação significativa também foi encontrada. A análise do teste-*t* dentro dos gêneros mostrou um efeito da quantidade de cognatos tanto para fábulas quanto para notícias. Assim, os participantes tiveram um desempenho melhor nas notícias e fábulas que continham mais cognatos do que nas notícias e fábulas que continham menos cognatos no texto. Nos testes-*t* executados entre os gêneros, houve diferença nos textos que continham menos palavras cognatas. Neste caso, os participantes tiveram pontuações mais altas nas notícias do que nas fábulas. Por outro lado, não foi encontrada diferença nos textos que continham mais cognatos. Em outras palavras, sugerimos que a presença de mais cognatos eliminou a diferença entre os gêneros, ou igualou o nível de dificuldade entre eles. Esses resultados, suas implicações e as limitações do estudo são discutidos.

**Palavras-chave:** *skimming*; quantidade de cognatos; gêneros textuais; leitura em L2; escola pública.

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## List of Abbreviations

L1 – First language.

L2 – Second language.

BNCC – *Base Nacional Comum Curricular*.

OECD – Organization for Economic Cooperation and Development.

PISA – Program for International Students Assessment.

INEP – *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*.

IDEB – *Índice de Desenvolvimento da Educação Básica*.

INAF - *Indicador de Analfabetismo Funcional*.

CAPES – *Coordenação de Aperfeiçoamento de Pessoal de Ensino Superior*.

BIA+ - Bilingual Interactive Activation Plus.

LQH – Lexical Quality Hypothesis.

SOC – *Sistema Orientado de Cloze*.

CI – Construction-Integration model.

TSS – Text Structure Strategy.

MARSI – Metacognitive Awareness of Reading Strategies Inventory.

SUP – Support (reading strategies).

GLOB – Global (reading strategies).

PROB – Problem solving (reading strategies).

ELP – English Lexicon Project.

OS – Orthographic Similarity.

IV – Independent Variable.

DV – Dependent Variable.

ICF – Informed Consent Form.

AF – Assent Form.

QHLILI – *Questionário de Hábitos de Leitura e Interesse pela Língua Inglesa*.

QHL – *Questionário de Histórico da Linguagem.*

SD – Standard Deviation.

SE – Standard Error.

N – number.

M – mean.

- cog. – less cognates.

+ cog. – more cognates.

Ctrl. – Control.

Exptl. – Experimental.

OP – Observed Power.

ANOVA – Analysis of Variance.

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## Chapter 1 - INTRODUCTION

Reading is a basic skill, which allows people to live in a literate and dynamic society. Learning to read starts, for most citizens, at school, during their childhood. School is where individuals have an initial opportunity for socialization outside of the family context. In the words of Lent (2019), school is where children's neural networks are sculpted, that is, it is where the information acquired helps to model the student's cognitive system. At school, students are provided with a knowledge systematization for reading, which includes knowledge about reading in a second language.

In Brazil, English has been the main second language taught in schools. One of the reasons for it may be that English is considered a lingua franca (Seidlhofer, 2005; Jenkins, 2009; Lewandowska, 2019), which establishes a common ground for world communication. In Brazilian public schools, which are the focus of this research, English teaching for Elementary and High School has been considered mandatory since the National Curriculum Common Basis (in Portuguese: Base Nacional Comum Curricular – BNCC<sup>1</sup>) (Brasil, 2017) was established. This document has been broadly discussed nationally and brings main contents to be taught during classes, including on reading in the L2<sup>2</sup> – in this case, English.

The national basis, which now regulates contents to be offered in schools, does not provide a thorough discussion on reading or L2 reading (Rosso & Arêas da Luz Fontes, 2019). That would be important since learning to read in the L2 is a complex phenomenon (Kato, 1999; Brevik, Olsen, & Hellekjær, 2016). In this sense, the path to become a reader in a second

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<sup>1</sup>For further information, visit: <http://basenacionalcomum.mec.gov.br/>

<sup>2</sup>In this study, we will use the terms L2 and second language interchangeably.

language is not easy, given that reading is itself a complex act, which implicates processing of information, memory activation and meaning negotiation (Izquierdo, 2018). Furthermore, in second language reading, there is evidence that the two (or more) languages are involved and simultaneously interacting (Grosjean, 2012; Finger, 2015; Kheder & Kaan, 2018).

In this study we adopt the perspective that reading is seen as an interaction of orthographic, lexical, syntactic, and semantic components in the readers' mind (Perfetti, 1999; Perfetti, 2001). Reading in a second language, on its turn, integrates the same elements and processes, but now with both linguistic systems involved. In different words, during L2 reading, both languages that the reader knows are activated, which provides them with more information to be analyzed (Cop, Drieghe, & Duyck, 2015; Hopp, 2018; Van Assche, Brysbaert, & Duyck, 2020). Thus, in this interaction, languages collaborate with each other in the reader's brain, through a shared neural system (Dehaene, 2012; Vasseur, 2013; Finger, Brentano, & Arêas da Luz Fontes, 2018).

Psycholinguistics studies have shown evidence of language coactivation through cognate words. Cognates are lexical elements that share form and meaning across languages (Costa, Caramazza, & Sebastian-Galles, 2000; DeSouza, 2008; Kleiman, 2011; Marian, Bartolotti, van den Berg, & Hayakawa, 2022). Thus, they may be thought of as a *bridge* between languages, in which orthographic and semantic similarity can unite linguistic codes during word recognition (e.g., banana in Portuguese and banana in English). Because of it, the processing of these words has produced an effect which has been called cognate facilitation (Van Assche, Duyck, & Hartsuiker, 2016; Cop, Dirix, Van Assche, & Duyck, 2017); that is, reading them becomes faster since there is direct access to the words' meanings.

Cognate processing was studied in this research, and these words were embedded in two different text genres. Textual genres are the different formats in which utterances are presented in society, with distinct structures, length, vocabulary, and purposes (Pereira & Scliar-Cabral, 2012). As they have different aspects, they also have distinct levels of processing, which may be easier or harder for the reader (Kraal, Koornneef, Saab, & van den Broek, 2017). Due to that, an array of textual genres is commonly used in schools, especially during language classes (Baretta & Pereira, 2019). It allows teachers and students to explore reading in different formats (e.g., a recipe or a fairy tale), and in all languages being studied in the classroom.

For a more complete understanding of the distinct reading presented in class, students must learn to use strategies. Reading strategies are tools that may solve, or at least attenuate, possible obstacles in comprehension (Kato, 1999; Paiva, 2010; Kovács, 2018), in the different text genres, as well as in the different languages that the reader has knowledge of, especially the L2. Strategic readers in a second language analyze the text before starting to read: they look at the graphic aspects, examine figures and titles, check possible previous knowledges, verify the presence of cognate words, raise hypothesis, specify reading goals, take notes, among other actions. To these readers, it is important to be aware of their performance, monitoring their learning stages, observing possible inconsistencies, and trying to work on them. In other words, a strategic reader is someone that makes use of metacognition (Palinksar & Brown, 1982; Afflerbach, Cho, Kim, Crassas, & Doyle, 2013; Woelfer, Tomitch, & Procailo, 2019).

In this research, the use of metacognition through a specific strategy is discussed and tested. Skimming takes place in the pre-reading phase of reading and helps readers to preview and analyze the material (Rayner, Shotter, Masson, Potter, & Treiman, 2016). It also provides readers with the opportunity to check their mental representations about the content and to raise



hypothesis about it (Santos, 2013). It is expected, in this metacognitive perspective, that skimming may direct the readers' attention to the salient form aspects of the text in the L2, such as pictures and titles, cognate words, and, after that, to be able to activate respective memories to guide text comprehension (Santos, 2013).

In this sense, it is necessary to think of how the work on reading and reading strategies are carried out in schools, as it is the institution that promotes the teaching/learning of a series of concepts, which are permeated by reading comprehension. Here, therefore, it is understood that reading is not something exclusive to teachers who are languages experts, but that “reading and writing are tasks for all areas, a commitment of the school and not exclusively of the Portuguese teacher” (Neves, Souza, Guedes, Shaffer, & Klusener, 2011, p. 15, translated by the authors). Thus, in order to be successful at school (and also outside it), effective and meaningful work with reading needs to be done, so that learners are able to deal with the most varied textual types, on the various platforms that are presented to them.

Such need is particularly evident when analyzing Brazil's educational indexes by organizations such as the Organization for Economic Cooperation and Development (OECD), which has been developing and implementing the Program for International Students Assessment (PISA)<sup>3</sup>. The PISA index has shown that the reading rates of young Brazilians are below the desired level. As a way of illustration, in the last editions of the exam, Brazil did not obtain good results. The country ranked 59th place in the general reading ranking in 2015, in which 70 countries were evaluated, and in the 57th place in 2018, with 80 participating countries. The

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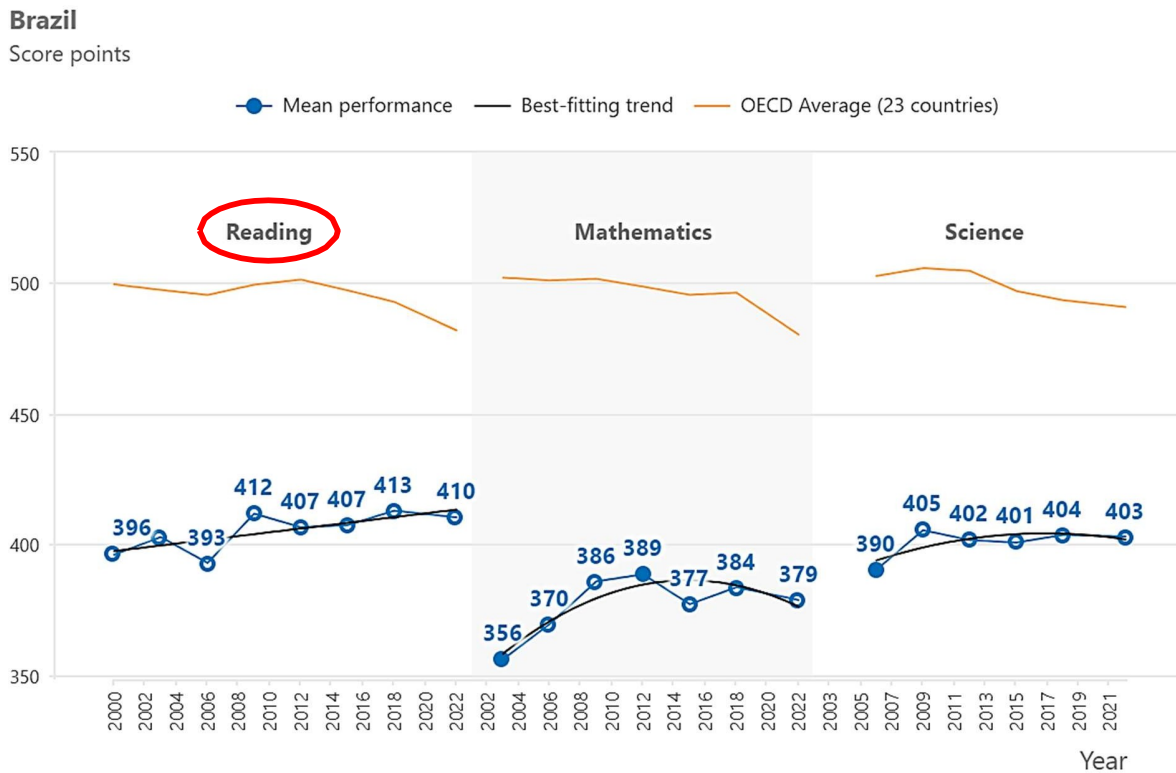
<sup>3</sup>PISA, or Program for International Student Assessment, is a worldwide assessment of school-age students managed by the OECD. It is held every three years, focusing on Mathematics, Reading and Science. For more information, visit [http://portal.inep.gov.br/artigo/-/asset\\_publisher/B4AQV9zFY7Bv/content/o-que-e-o-pisa/21206](http://portal.inep.gov.br/artigo/-/asset_publisher/B4AQV9zFY7Bv/content/o-que-e-o-pisa/21206)

following figure illustrates the most recent results, according to the 2022 PISA assessment<sup>4</sup>.

Reading score is marked in red:

**Figure 1**

*Results for Brazil on PISA (2022)*



Source: OCDE (2023) – our highlight.

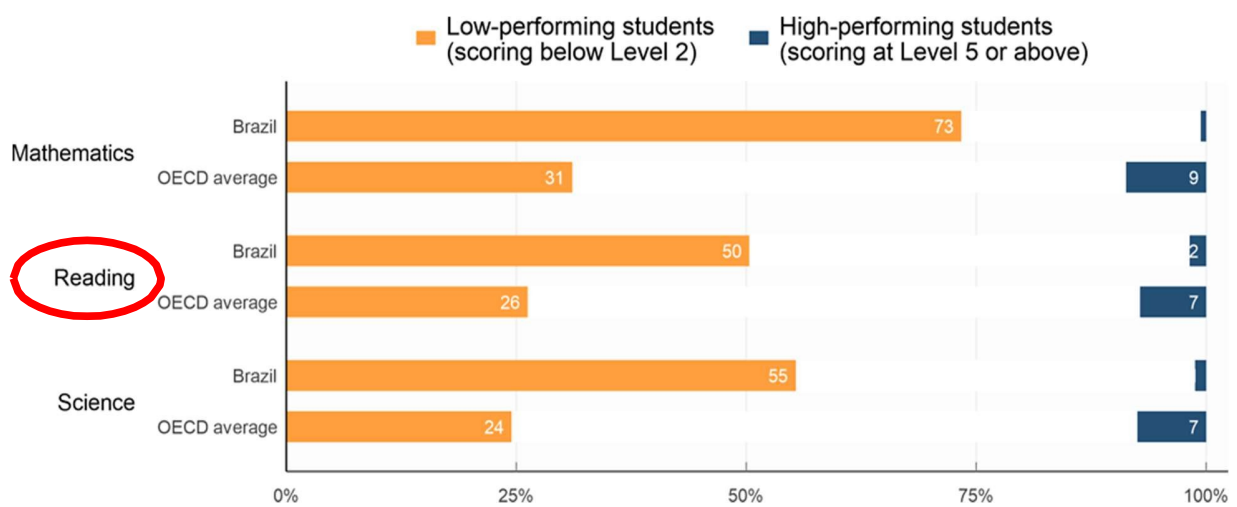
It is possible to visualize that, in a comparison with 2018, Brazil achieved slightly lower results (413 score points in 2018; 410 score points in 2022) in 2022. In the general reading ranking, Brazil achieved the 50<sup>th</sup> position – which is higher compared to 2018. According to OCDE (2023), however, that difference in the scores is not statistically significant. This may indicate that Brazil did not present changes on students' reading performances in the past years.

<sup>4</sup>The last PISA test should have happened in 2021. However, due to the COVID-19 pandemic, the exam had to be postponed to 2022.

Although there is no significant decrease, it is relevant to consider that there have not been improvements as well. In addition to that, PISA brought extra information on the reading scenario in Brazil. The figure below shows the percentage of low and high reading performance for Brazilian students in 2022. Reading score is marked in red:

**Figure 2**

*Percentage of low and high reading performance for Brazilian students*



Source: OCDE (2023) – our highlight.

The figure shows that 50% of the Brazilian students who participated on the test are still low performers in reading. That is, half of the population of students from the sample were not able to comprehend texts adequately in 2022. Only 2% of the participants were considered competent readers, i.e. they could interpret longer texts, manage unknown words or concepts, and identify main ideas throughout the text (OCDE, 2023). Taken together, these international indexes indicate that much still must be done in order to improve Brazilian reading conditions and to ignite those results.

Nationally, surveys carried out by the Anísio Teixeira National Institute of Educational Studies and Research (in Portuguese: Instituto Nacional de Estudos e Pesquisas Educacionais

Anísio Teixeira - INEP)<sup>5</sup>, for example, such as the Basic Education Development Index (in Portuguese: Índice de Desenvolvimento da Educação Básica - IDEB), also show an unfavorable scenario of schooling in the country. Data from IDEB detail that many of the proposed goals for Brazilian schools have not been achieved so far (Brasil, 2023). For instance, approval indices from 8<sup>th</sup> and 9<sup>th</sup> graders from public schools, who are the population represented by the participants involved in this study, are behind their peers from private institutions. In other words, students from public schools tend to fail more in school compared to students from paid schools.

When it comes to assessments in Portuguese language, which verifies individuals' reading comprehension, again students from public institutions are in an unfavorable situation: private schools had a score of 288,83 while public scored 254,88. In conclusion, IDEB, which is the index based on these values, mirrors this inequality: in a range from 1 to 10, private schools reached 6,3 while public schools reached 4,9 (Brasil, 2023).

Thus, PISA and IDEB results shed light on the necessity of providing not only more investments on Brazilian schools, but also studies on how to improve those indexes. And, although these data are related to reading in the L1 (Portuguese), such practices have repercussions, in the same way, on the teaching and learning of reading in a second language. According to studies that have been conducted in the past decade, approximately 80% of the Brazilian schools had offered only two English classes a week (Brasil, 2013; British Council, 2015), whereas Portuguese had more classroom time (Brasil, 2013).

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<sup>5</sup>INEP is an organization associated to the Ministry of Education of Brazil, which is responsible for collecting and analyzing data on education in the country. INEP is also responsible for the implementation and analysis of the IDEB (Basic Education Development Index), which is the sum of evaluations and results obtained in Brazilian schools, which generates a number from 1 to 10, and identifies the quality of the teaching/learning by state, city, region, institution category and by schools, individually (Brasil, 2023).

In recent times, there have been changes in the number of Portuguese and English classes offered in public schools, aligning with the guidelines outlined in the BNCC (Brasil, 2017). Presently, the allocation of classes varies based on the institutional management system (city or state) and the level of education (primary, elementary, or high school). For instance, schools under the administration of the state of Santa Catarina provide four Portuguese classes per week in elementary school and three English classes (Santa Catarina, 2019). In high school, the number of Portuguese classes oscillates between one and three, while English classes range from one to two (Brasil, 2017).

Given this context, it is understandable that Portuguese receives more classroom time, being the students' L1. However, this information prompts further reflection. It is reasonable to assume that if English is given less time in the classroom, L2 reading proficiency may show a lower performance compared to L1 reading. In different terms, if reading in the L1 has not been satisfactory despite the higher number of Portuguese classes, it is plausible to infer that L2 reading performance might be even lower (see Rosso & Arêas da Luz Fontes, 2023, for more details).

This present research has relevance, then, because it proposes that L2 reading competence can be better developed in public schools, through metacognition and instruction of strategies (Solé, 1998; Kato, 1999; Paiva, 2010; Kleiman, 2013; Santos, 2013; Ke & Chan, 2017; Friesen & Haigh, 2018; Kovács, 2018). Adopting reading strategies during English classes may provide students with cognitive tools that will assist them when facing difficulties in different text genres (Solé, 1998; Friesen & Haigh, 2018). Those strategies do not need to be necessarily applied only to English, but they can also be transferred to other school subjects administered in the L1, the same way those strategies can be transferred from L1 to L2 (Koda, 1990). However, this research

focuses on the use of metacognitive strategies on L2 reading as a way to turn incipient readers into experient strategic readers (Souza & Garcia, 2012).

In this sense, Paiva (2011) states that reading in an L2 should not be conceived as a passive exercise, in which readers automatically translate vocabulary and texts. Instead, it should be a process of learning strategies enhancement, comprising lexical analysis, inference making, and development of autonomy before a text in a second language. Therefore, it is understood, in this study, that the practice of reading in the L2 also demands attention, activity and strategy, similarly to reading in the L1. This way, one cannot learn to read in the second language in a static way, but from the dynamic process mentioned by Paiva (2011), which involves significant practices based on the form and meaning of the text. Thus, in order to promote these practices, the use of metacognitive reading strategies may be effective, since they promote a greater perception and understanding of texts (Kato, 1999; Alliende & Condemarín, 2005; Paiva, 2011; Souza & Garcia, 2012), both in L1 and especially in the L2, which is the focus of this research.

Reading strategies improve reading comprehension, clearing possible doubts and/or interpretive confusions, consolidating a better learning (Lapkoski, 2012; Nunes, 2020). Such tools, when applied to younger individuals, such as adolescents, can develop their ability to explore a text more effectively in the L2 (Lapkoski, 2012; Santos, 2013; Castillo & Bonilla, 2014; Friesen & Haigh, 2018). That is the reason why teaching reading strategies must be encouraged during classes (Souza & Garcia, 2012; Viana, Ribeiro, Santos & Cadime, 2019). This teaching/learning provides students with additional possibilities when it is necessary to read a text of greater complexity, such as one written in a language that is not their most dominant.

The development of L2 reading at school by adolescents going through elementary and high school, therefore, may be improved from the teaching/learning of reading strategies. One of

these strategies is the skimming, which enables the student to explore the text previously and quickly, analyzing its macrotextual aspects, such as titles, figures, and highlighted words (Pereira & Scliar-Cabral, 2012; Lapkoski, 2012; Santos, 2013; Rayner et al., 2016). This practice promotes the attention to superficial aspects of the text, which helps bottom-up processes, as well as the activation of previous knowledge, which is also necessary for a better understanding of the text (Smith, 2003; Alliende & Condemarín, 2005). Thus, the learner will seek in their linguistic bases the information that is relevant to anchor their understanding, such as the recognition and processing of cognate words (DeSouza, 2008; Kleiman, 2011). As mentioned, these are the words that share spelling and semantics between languages (Lijewska, 2020; Van Assche, Brysbaert & Duyck, 2020; Marian et al., 2022), which facilitates their coactivation and enables a more rapid reading in the L2 (Libben & Titone, 2009; Cop et al., 2017).

In other words, encouraging the use of reading strategies with teenagers, especially skimming, in the L2, helps them, from an early age, to deal with more complex texts of different genres (Pereira; Scliar-Cabral, 2012; Santos, 2013). Strategies like skimming also assist at exploring the clues that a text displays - like cognate words -, to understand the general meaning of the written code through them (Nunes, 2020). Similarly, it makes students more strategic as they grow and acquire new cognitive, processing and information storage skills, increasing their framework of previous knowledge (Smith, 2003; Souza & Garcia, 2012). It not only facilitates learning in the L2, but also in other areas of study (Paiva, 2011), which may reflect directly on the indexes discussed before.

Such debates, unfortunately, are still the target of little scientific production. That is, there are not many studies associating reading strategies in L2 with teenagers, especially about the use of skimming strategy. This is because reading strategies are discussed in general, and more

commonly with college students. Adolescents, in turn, who are still in a stage of reading development (Liu, 2008), are not part of many of the studies conducted in this area. The table below reports the amount of research that has been done about the constructs being presented in this dissertation. Searches were executed using the following keywords: L2 reading, L2 reading strategies, skimming, and skimming + teenagers (both in Portuguese and in English). Alternative terms were used, such as teenagers, second language, foreign language, English language, and additional language. The data were taken from one of the most common databases in the academic community in Brazil, the CAPES' Journals Portal (in Portuguese: Portal de Periódicos da Capes<sup>6</sup>).

**Table 1**

*Number of occurrences that appear on Portal de Periódicos da CAPES, according to the main themes related to this study*

<i>Keywords consulted</i>	<i>Number of occurrences on Portal de Periódicos da CAPES</i>
<i>Leitura + L2</i>	121
<i>Leitura + segunda língua</i>	504
<i>Leitura + língua adicional</i>	61
<i>Leitura + língua estrangeira</i>	558
<i>Leitura + língua inglesa</i>	552
L2 + reading	4.969
Second language + reading	31.709
Foreign language + reading	19.460

<sup>6</sup>For further information, visit: <https://www-periodicos-capes-gov-br.ez1.periodicos.capes.gov.br/index.php?>



Additional language + reading	4.393
<i>Estratégias de leitura + L2</i>	21
<i>Estratégias de leitura + segunda língua</i>	82
<i>Estratégias de leitura + língua adicional</i>	9
<i>Estratégias de leitura + língua estrangeira</i>	76
<i>Estratégias de leitura + língua inglesa</i>	85
Reading strategies + L2	939
Reading strategies + second language	5.441
Reading strategies + additional language	668
Reading strategies + foreign language	3.780
Reading strategies + English	8.511
<i>Estratégias de leitura + L2 + skimming</i>	0
<i>Estratégias de leitura + segunda língua + skimming</i>	0
<i>Estratégias de leitura + língua adicional + skimming</i>	0
<i>Estratégias de leitura + língua estrangeira + skimming</i>	0
<i>Estratégias de leitura + língua inglesa + skimming</i>	0
Reading strategies + L2 + skimming	10
Reading strategies + second language + skimming	44
Reading strategies + additional language + skimming	3

Reading strategies + foreign language + skimming	36
Reading strategies + English + skimming	59
Skimming + L2 + <i>adolescentes</i>	0
Skimming + <i>segunda língua</i> + <i>adolescentes</i>	0
Skimming + <i>língua adicional</i> + <i>adolescentes</i>	0
Skimming + <i>língua estrangeira</i> + <i>adolescentes</i>	0
Skimming + <i>língua inglesa</i> + <i>adolescentes</i>	0
Skimming + L2 + adolescents	0
Skimming + second language + adolescents	0
Skimming + additional language + adolescents	0
Skimming + foreign language + adolescents	1
Skimming + English + adolescents	2
Skimming + L2 + teenagers	0
Skimming + second language + teenagers	0
Skimming + additional language + teenagers	0
Skimming + foreign language + teenagers	1
Skimming + English + teenagers	0

Source: elaborated by the authors.

As the table shows, some studies were found when it comes to the articulation of the main constructs of this study (i.e., reading strategies + second language + skimming). A more comprehensive analysis was then conducted, and articles related to the area of information

technology, cinema, and advertising, which are not interesting to this research, were found. Others even address the central topics, but they were not peer reviewed, or were outdated (1982 and 1988, for example). Moreover, most works were about skimming and L2 reading, but they were not exclusive of skimming. For example, we can cite the study developed by Chamba and Ramirez-Avila (2021) which had as main goal to observe the influence of skimming and scanning on reading improvement among teenagers. Thus, taken together, 192 studies were about both strategies combined, and only a few were exclusively about skimming. Finally, two main results were found, - by Agudelo, Ávila, and López (2007) and by Muddin and Rahayamtel (2018) -, and these ones will be detailed later, in the section that deals specifically with the skimming strategy.

It is therefore important to develop more research as well as to look more closely at reading strategies in the classroom, and specifically at the development of L2 reading among adolescents during elementary school, extending to high school. Furthermore, it is necessary to teach strategies that encourage students to analyze the content in advance, in order to make them analyze the written code and to access the representations of the minimal elements (Perfetti, 1999). In addition, it is important to make them think about what they are going to read, checking their previous knowledge, and raising hypotheses about the material (Solé, 1998; Serra & Oller, 2003; Santos, 2013), as it is done with the skimming strategy. These practices are part of a set of tools that engage the student in their own instructional process, which allows them to develop their metacognition (Paiva, 2011; Afflerbach et al., 2013; Woelfer, Tomitch, & Procailo, 2019).

These practices go on the opposite direction of outdated and crystallized activities, that are still present in L2 reading classes, such as mechanic translations (Paiva, 2011). Due to that,

it is important to promote students' metacognition, that is, their ability to be aware of and control their own learning (Minguela, Solé, & Pieschl, 2015). This is a way to turn text not into a mere repository of information, but an opportunity for interaction with letters, sounds, words, meanings, and the knowledge already established by the reader. Through metacognitive reading strategies, adolescents may be able to achieve higher levels of linguistic knowledge, as well as to become more fluent and strategic readers (Solé, 1998; Serra & Oller, 2003; Kleiman, 2013). When well managed in the classroom, such skills have the potential to propel the education indexes aforementioned, such as PISA and IDEB, in order to improve Brazilian education in all fields of knowledge.

In this sense, it is important to cite which studies have already been produced on the topics presented in this dissertation, and that contributed to the study of strategic reading in the L2. Works such as those by Grigoletto (1992) and Dias (1996) are relevant Brazilian studies to be mentioned, even though they are not recent. The researchers have focused on reading in the L2, more specifically with the use of strategies, to demonstrate that reading in the L2 starts with decoding and develops to the construction of meanings, in an establishment of dialogues and connections, mediated by the sociocultural contexts. In addition to that, the authors argue that reading in L2 does not only consist of using a text to explore grammatical aspects of the language (see also Paiva, 2011) but to comprehend a message adequately, making use of the text particularities, as well as the reader's own knowledge for the necessary associations, in order to improve skills in the second language (Grigoletto, 1992; Dias, 1996).

Speaking of studies specifically related to strategies, but not yet with adolescents, Brauer (2014) studied the applicability of these reading tools in texts in English as an L2. To do so, a group of Brazilian undergraduate students participated in the study, which had as main objective

to find out whether they had knowledge of any reading strategy when dealing with texts in English. According to the author, no instructions were provided, as the objective was to find out which strategies the undergraduates brought with them at the time of reading. The results showed that skimming was a widely used technique, since the participants, in general, studied the structure of the text before reading it properly.

The researcher also highlighted that the students underlined, in the body of the text, the passages they considered most important, and, at the end, they took notes as a form of future verification. Thus, she describes that some strategies employed by the group were triggered automatically, while others demanded more attention and control (Brauer, 2014). In the words of Kato (1999), it can also be said that these students used both cognitive (automated) and metacognitive strategies (unautomated, with control and attention). These concepts will be better understood later in this work.

Finally, studies involving the entire set of elements mentioned so far are quite limited. As already mentioned, there are few studies that conduct experiments with adolescents in strategic reading practices in the L2, especially with the presence of skimming. A gap in experimental research that specifically addresses skimming as a metacognitive strategy for reading in the L2 with adolescents has been observed. Studies that discuss more general topics, such as reading in L2, reading strategies in L2 and the use of combined strategies are more recurrent (as pointed on table 2). In the opposite direction are the studies focused on the specific group of teenagers using skimming as a way to improve their reading skills in the L2. What this work intends, therefore, is to fill in this gap.

To do so, a research question was elaborated: In what way does skimming, as a metacognitive strategy, influence reading comprehension of adolescents in English as a second

language? Based on this problem, the main goal for this study was delimited. This study aimed at understanding how a pre-reading metacognitive strategy – skimming – would influence the reading performance of eighth and ninth graders from two public schools located in the South of Brazil.

The principal hypothesis is that there will be a positive and significant effect of the skimming instruction. In other words, the adolescents will show a better performance in the posttest than to the pretest, when compared to the control group (which does not receive the instruction). In simpler terms, the strategy teaching will result in a positive impact on the reading comprehension of the teenagers in the L2. As a result, they will demonstrate a greater understanding of the text through the macro-textual cues provided by the content (Pereira & Scliar-Cabral, 2012; Lapkoski, 2012; Santos, 2013; Rayner et al., 2016).

Moreover, specific objectives were elaborated considering the variables thought to interact with the use of strategy during reading. These additional objectives, in their turn, guide the hypotheses and actions to be undertaken in the experiment. They are:

- To investigate whether there is a textual genre effect on reading comprehension by the participants, by comparing students' performance on fables and news articles;
- Hypothesis: a second hypothesis raised here is that adolescents who perform tasks in the theoretically more familiar text (fable) will also show better results. This is because the fable is a textual genre more focused on the school audience, taught in the early years of schooling by teachers (Neves & Borges, 2018; Baretta & Pereira, 2019), with a more accessible vocabulary that generally includes animals and words more consistent with the students' daily lives. Still about vocabulary, fables, in general, contain repeated words, which can make the text more consistent and predictable (Saadatnia, Ketabi, & Tavakoli,

2017). It may help students to reinforce their memory and give them hints during the *cloze* task. In addition to that, studies have shown that narrative texts (as the fables) are easier to process when compared to informative texts (as the news) (McNamara, Ozuru, & Floyd, 2011). Informative texts tend to have a more complex syntax structure, while narrative texts are more familiar and accessible to readers (Denton, Enos, York, Francis, Barnes, Kulesz, Fletcher, & Carter, 2015).

- To analyze the extent to which the number of cognate words in a text influence readers' performance by comparing their reading of materials with a higher and lower number of cognates.
- Hypothesis: the third and final hypothesis is that students will also demonstrate better performance in the reading task in texts containing a higher number of cognate words than in those containing fewer cognates. Due to the presence of words with great orthographic similarity, the number of inferences and predictions made by the reader about the content is increased, aiding in the comprehension task (DeSouza, 2008; Kleiman, 2011; Lijewska, 2020; Van Assche, Brysbaert & Duyck, 2020; Marian et al., 2022). Thus, the combination of a text that is understood to be common at school along with a text with more vocabulary clues, will be the one which will be easier for adolescents to complete the *cloze* task.

The motivation for the investigation of the objectives proposed in this research was the feeling of curiosity present during and after the researcher's participation in the "Ler e Educar" project. This set of activities took place from 2013 to 2016, in three different cities and school networks in Southern Brazil. The project's goal was to develop strategic reading in the first language (L1) with groups of teachers from different epistemological areas. After the end of the

activities, several questions remained unanswered. One of them was: *In what way would reading strategies work in a second language?* Another one was: *How can they be adapted to a younger sample?*

The theme of the present research was not only built by these questions but also by reading and acknowledging the work of authors who came before us. In the field of reading strategies and processing, it is possible to mention researchers such as Baker and Brown (1980), who brought important reflections on reading from a metacognitive perspective. In addition to them, there are authors like Carrell (1989), who shed light on possible strategies to be adopted by second language learner readers. Regarding the work with younger readers, Paris and Oka (1986) may be mentioned, as they showed evidence of the important role of reading strategies on reading performance with children and adolescents. They emphasize the importance of instructing these strategies early on to enhance reading performance of this group throughout time (Paris & Oka, 1986).

Similarly, more current works have been of fundamental importance, such as Ke and Chan (2017), who investigated the role of L1 prior knowledge in L2 reading performance in children and adolescents, as well as the transfer of reading skills between languages. Another noteworthy work is the one from Brevik (2019), who analyzed the use of reading strategies by 9<sup>th</sup> and 10<sup>th</sup> graders taking English as L2 classes. Finally, a more updated work was carried out by Yau (2022), who had as main goal to verify the impact of reading strategies combined with motivation and literacy performance on teenagers' text comprehension. Taken together, these authors made efforts to better understand L2 reading with younger readers, who are still developing their skills at school. Thereby, through the study of such authors, as well as develop the ideas inspired by the "Ler e Educar" project, the proposed theme was elaborated.



Finally, this study offers an opportunity to reflect on how reading practices may be improved during English classes through metacognitive strategies, focused on skimming. Debating it, as well as conducting experiments on the theme are ways to supply, at least a little, the lack of research on this topic (as seen on table 1). We expect that results obtained from this research may not only fill in a gap on science production, but also be helpful in the L2 reading development in public schools.

## **Chapter 2 - LITERATURE REVIEW**

The bibliographic review carried out here will cover the topics that are inherent to the themes of this dissertation. Therefore, subjects such as reading (in general), reading focused on the L2 and its specificities (such as the bilingual word recognition model, the BIA+) and reading strategies will be addressed. In addition to that, the following sections will present research focused on the variables of this research, such as studies with textual genres and cognate words. It will also bring discussions about skimming: its conceptualization, applicability, and studies that focused on its implementation in schools. Such explanations aim at shedding light on the constructs presented in this work, so that the manipulated variables are contextualized and clear for the reader.

### **2.1 Conceptualizing Reading**

Reading is an integral part of individuals' intellectual, social, professional, and personal attitudes. People read to learn something new about a particular topic; they read to discover the daily specials at a restaurant; they read to approve or reject a document; they read to identify which bus line is passing by, and so on. Therefore, it can be said that reading is one of the foundations for individuals' survival in society; something they must master, at least to some extent, to carry out most of the tasks demanded by the professional world, for example.

The act of reading, so present in everyday relationships, has been the focus of many studies in academia, where research delves into the various facets of reading: linguistic analysis, comprehension of written discourse(s), pedagogical and social implications, as well as the neuronal connections and activations involved, cognitive processing, among others. The key reflections undertaken in this work about reading are anchored in Psycholinguistics, which is an

epistemological area that aims at studying language processing and acquisition, including reading (Melo, 2005; Godoy & Dias, 2014; Scliar-Cabral, 2015; Maia, 2015).

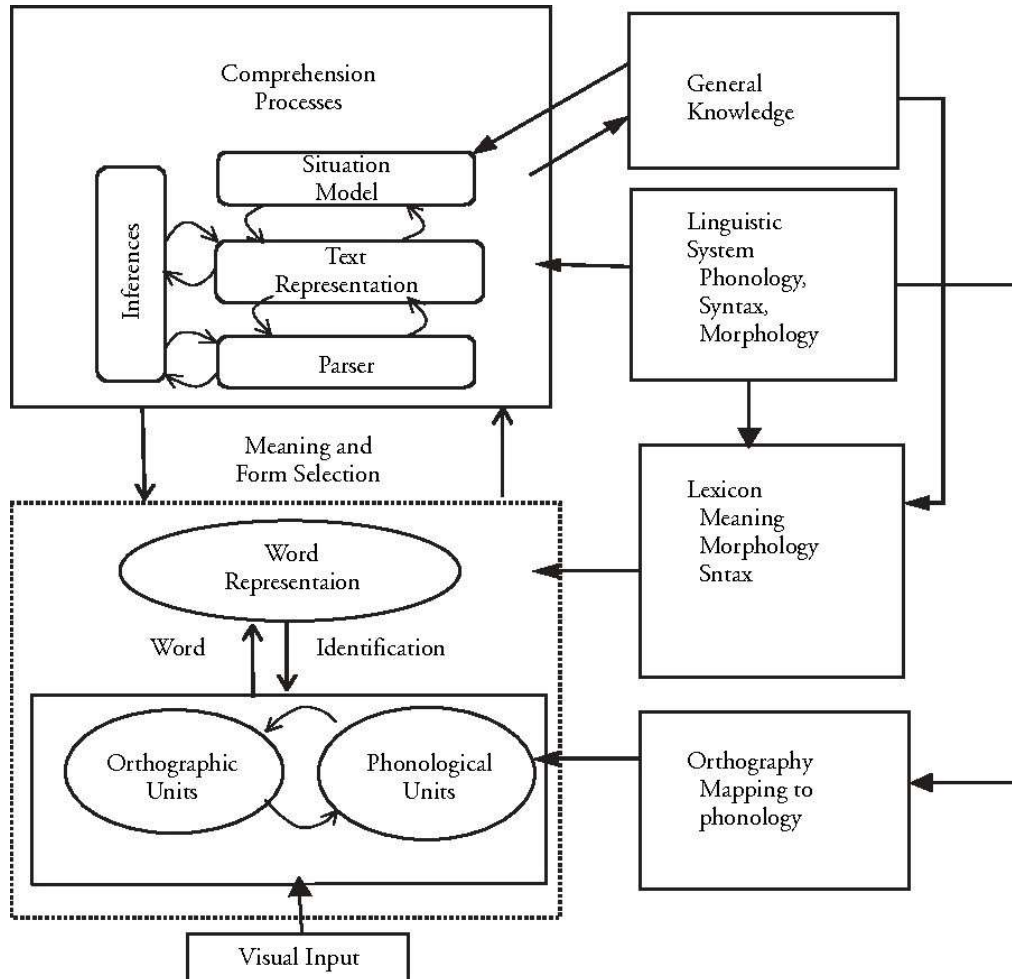
Within Psycholinguistics studies, reading is seen as a complex act that involves analysis of a certain input, activation of stored memories, reader's expectations and objectives, in a process of negotiation and adjustments of meanings, allowing the comprehension of a particular text (Kato, 1999; Kleiman, 2013). Smith (2003) mentions that although common sense sometimes approaches reading as a simple and shallow understanding of symbols, it goes on the opposite direction. Reading is considered complex because it is something that requires intense cognitive actions: it stimulates memories of various kinds (e.g., linguistic and world knowledge) as well as different emotions (Souza & Garcia, 2012; Izquierdo, 2018).

Therefore, when a reader encounters a particular content, i.e., when their eyes touch the text, a process of lexical recognition, activation, and engagement of established knowledge begins. The reader starts to identify elements that are familiar to them, beginning with microstructures, such as phonemes and letters, associating them automatically, correcting, reformulating, and confirming (or not) their hypotheses (Perfetti, 1999; Perfetti, 2001; Alliende & Condemarín, 2005).

That is what Perfetti (1999) calls a blueprint of the reader: an organized network of connected linguistic elements that are gradually activated when an input is received. This activation starts from the smallest components (phonemes, letters, graphemes), develops into lexical items, and ultimately form a text. Thus, during this process of text recognition, "both the data on the page and the reader's knowledge interact as necessary sources of information for comprehension" (Kleiman, 2011, p. 18), which may vary according to the reader's level of fluency. Figure 3 illustrates what is being discussed.

**Figure 3**

*Schema of reading components and their connections*



Source: Perfetti (1999)

This way, working with the reader's mental lexicon is of utmost importance. This is because, for reading to have meaning and comprehension, the various lexical levels – orthography, phonology, morphosyntax, and semantics – need to be processed and integrated during reading (Perfetti, 2007), in a rapid procedure within the individual's mind. Reading ability, therefore, depends on the subject's knowledge of a specific vocabulary and how well they master the different levels that make up words (Perfetti & Hart, 2002). And, in the case of younger learners, it can be said that what is referred to as lexical quality (Perfetti, 2001; Perfetti

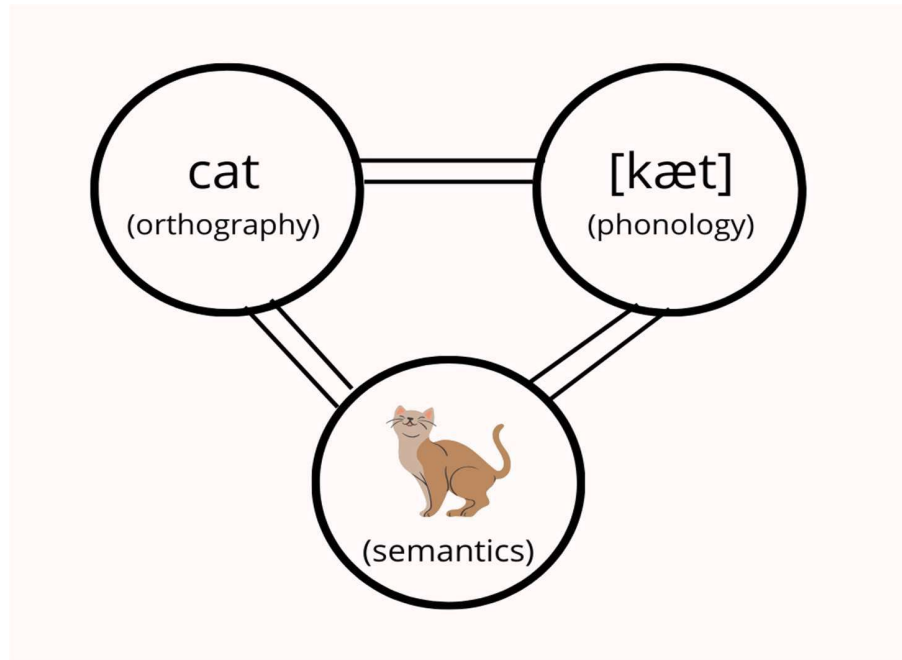
& Hart, 2002; Perfetti, 2007) is still in development, as the mental representations of words and their levels are evolving, and their connections are improving with reading experience.

The lexical quality hypothesis postulates that words have main constituents: orthography, phonology, and semantics. These elements are linked, and those bindings can be weaker or stronger, depending on the person's experience (Perfetti & Hart, 2002). For example, the word *cat* has different levels of representation, and the proper learning of this word will depend on the quality of establishment of these levels and connections. Going deeper on this same example: if a person can write the word *cat*, and knows what kind of animal it is, but does not know how to pronounce the word, it is possible to say that it is a case of lower lexical quality.

Thus, having poor lexical quality can impair reading processing, once “the identification of the word is the retrieval of these constituents” (Perfetti & Hart, 2002, p. 191). In other words, a weak connection between orthography, phonology, and semantics can narrow the success of accessing words adequately from the mental lexicon. Figure 4 shows how LQH can be understood:

**Figure 4**

*Example of the Lexical Quality hypothesis (Perfetti & Hart, 2002) applied to the word cat.*



Source: elaborated by the authors.

The image shows the links between the three main elements for lexical quality, as well as representations of them according to the word *cat*. For adult readers, in general, lexical representations are stronger since they tend to be more experienced with reading. Regarding to adolescents, who are the target group of this research, they may present lower lexical quality (Perfetti & Hart, 2002), given the shorter time of reading practice and fluency when compared to adults (Liu, 2008). In addition to that, unsatisfactory work with reading at school, whose implications can be seen in the data reported by PISA (see Figure 1) and IDEB, may limit the strengthening of lexical representations and their connections in students' minds. Therefore, a satisfactory work with reading in the school is important, since it may facilitate the activation of the linguistic microstructures necessary to carry out the full identification of the lexical items in the reader's mind (Perfetti, 2007). Finally, those lexical items will later compose sentences and paragraphs, through associations and negotiations at different levels, such as orthographic and semantic (Perfetti & Hart, 2002; Souza & Garcia, 2012).

In this context, Joly, Bonassi, Dias, Piovezan, and Silva (2014) conducted a study aiming to test the lexical processing of 10-14 years old children and adolescents and their reading performance. To do so, the authors used an adaptable offline methodology, the *cloze* test. In the view proposed by Tomitch (2008), as well as in a more classical perspective of the task (Taylor, 1953), *cloze* is applied to a text when every fifth word in a sentence is removed. In this way, it is possible to observe what the reader is capable of comprehending regarding the author's purpose through the analysis of words (and their constituents), the production of inferences, and, finally, the filling of the gaps within the text (Taylor, 1953).

The model adopted by Joly et al. (2014) in the research was an adaptation of the *cloze* test, manipulated by Joly (2009), called SOC (in Portuguese: Sistema Orientado de *Cloze* – in English: Oriented *Cloze* System). In this version of the test, the researcher adjusts the texts according to the difficulty levels of the material to assess reading comprehension, especially when the tested audience consists of children and adolescents. What Joly et al. (2014) did was to adapt the SOC for the child and adolescent audience while testing three different versions of the test to assess the reading competence of the group using different instruments.

The texts used by Joly et al. (2014) with the sample of students were gapped in three different ways: in the first model (AMIGOS5), the first paragraph was kept intact, and only nouns were omitted (26 nouns from a 200-word text). In this version, it is worth noting that the omission of nouns occurs in every five words. Additionally, participants are given three choices in parentheses, with two words of the same grammatical class (noun) and one from a different class.

In the second SOC model proposed by Joly et al. (2014) - (AMIGOS10) - , 17 nouns were omitted, with the first paragraph remaining unchanged. The difference here lies in the

omission of nouns: while in the first model, every five words omitted the next noun, in this model, the omission occurred every ten words. Additionally, participants were given three choices for filling in the gaps (similarly, two words of the same grammatical class and one from a different part of speech). Finally, the third SOC model (CV) is more similar to the traditional *cloze* test, as a noun is omitted every five words. There are no choices this time, following the classic test format. However, the first sentence and the last paragraph remain unchanged.

The results obtained by the research group indicated that students performed better in reading comprehension through the first presented model (S5 - 84% correct) compared to the second model (S10 - 80% correct) and the third model (CV - 40% correct). The first and second models had very close results, and, according to the authors, this may have occurred because the difficulty level of the two tests is similar, resulting in satisfactory performances in both test formats (Joly et al., 2014).

What is evident from this study is that the reading competence of children was stimulated by the greater amount of lexical information left in the text, providing them with more opportunities to develop their lexical quality (Perfetti & Hart, 2002), as well as to make inferences during reading (Oakhill, Cain, & Elbro, 2017). With the presence of more textual information, students were able to use a more bottom-up approach. In contrast, with gapping and inferences, they could employ a more top-down approach. Ultimately, they achieved higher reading performance by combining both concepts, forming an interactive reading process. This is the topic that the next section will address.

### ***2.1.1 Bottom-up, Top-down, and Interactive Reading Approaches***



Within common perception, when someone reflects upon the paths traversed by the reader's mind in reaching an understanding of the text, it might be imagined as a direct line between the text and comprehension. However, as previously asserted, reading is a complex act, giving rise to divergent pathways, based on distinct foci of the reader's attention: the cues left by the text and its microstructures (focus on the text) and the assumptions formulated by the reader based on their prior knowledge (focus on the reader) (Alliende & Condemarín, 2005).

The reading process with a focus on the text, also known as bottom-up, is a path where the reader directs their attention towards a more linear comprehension, where the construction of meaning starts from the smallest units to larger textual elements (letter, syllable, word, phrase, text). As the name implies, it is an action that proceeds from the bottom to the top, involving an ascending processing, in which the text imparts the necessary information to the reader for understanding (Gough, 1972 cited by Kleiman, 2011; Kato, 1999). In other words, the reader tries to extract meaning from the text, starting by its smaller constituents.

On the other hand, there is the reverse path, in which the reader's focus is directed towards themselves and the prior knowledge they have constructed throughout their experiences. The top-down approach, or descending, thus follows a movement from top to bottom. In this approach, the reader assigns meaning to the text, relying on a non-linear logic of analyzing previous content such as titles, images, and graphs to trigger their memories on the subject (Goodman, 1967; Smith, 2003). This allows them to formulate hypotheses about what they are about to discover. The idea behind this approach is to engage the reader actively and dialogically, making deductions about the text based on their mental representations of the content (Kato, 1999).

In this regard, what is suggested and what literature has accepted more broadly is an interactive approach of reading. It synthesizes and combines both approaches, engaging in a set of cognitive processes aimed at comprehension (Solé, 1998; Allende & Condemarín, 2005; Souza & Garcia, 2012; Kleiman, 2011, 2013). In this third line of perception and sense-making negotiation, Baretta and Pereira (2019) state that "the reader poses questions based on their linguistic, textual, and worldly knowledge. To answer them, they must search the text for clues that will support their hypotheses" (p. 144). In other words, the comprehension of the text occurs through the combination of these two pathways: the clues found through the perception of the written material and the individual's stored memories regarding their mental representations of the world (Smith, 2003; Allende & Condemarín, 2005).

This interactive reader is viewed by Kato (1999) as a "constructive-analytical reader" (p. 67) who appropriately utilizes both processes, simultaneously extracting and attributing meaning to what they read. They construct meaning through the new information presented in the text while analyzing the content by applying what they already know. In this sense, Adams and Collins (1977), in earlier studies, asserted that both the bottom-up and top-down approaches should occur concurrently, allowing the reader to identify new information and solve comprehension problems through inferences. The authors added that "the data needed to fill in the schemata become available through bottom-up processing; top-down processing facilitates their assimilation" (Adams & Collins, 1977, p. 9). Therefore, it can be said that these approaches are not mutually exclusive but rather complementary (Abreu, 2017; Baretta & Pereira, 2019).

Similarly, views of interactive reading have been discussed. One of them was proposed by Kintsch and Van Dijk (1978), who conceptualize reading as an interactive-constructive process. They understand reading as a combination of the text, as a graphic form, and the reader,

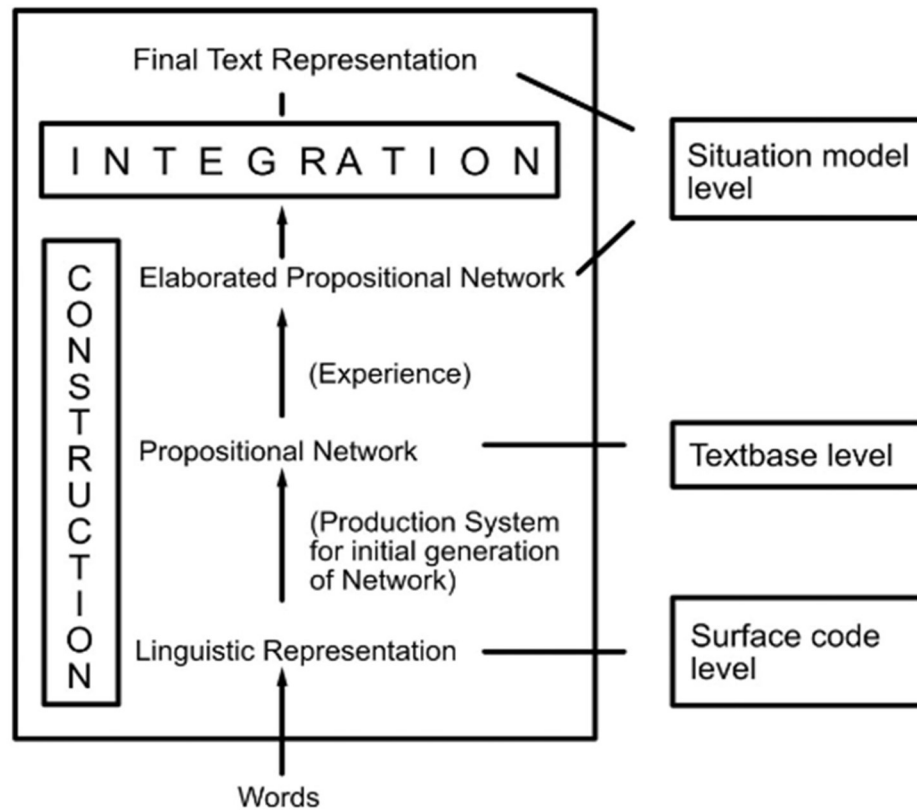
as the holder of some amount of knowledge. Kintsch and van Dijk (1978) also developed what is called the Construction-Integration Model (CI). It proposes that an individual's stored knowledge is organized in a network of concepts which are linked to each other semantically. And, during reading, it is combined with the representations that the reader created from the text (see also Kintsch, 1998).

In order to create these representations, the reader receives a certain linguistic input. First, letters and phonemes are seen, recognized, combined into words, which are later linked into sentences. Then, a second cycle starts: the reader tries to make sense of these words and create mental propositions of the sentences. These propositions are connected to the others that raise from the text, and a general structure is created (Kintsch, 1998; Nobre & Salles, 2014). However, these representations are still shallow. The final cycle needs to be completed: the development of a situation model of the text (Kintsch; Rawson, 2005; Nobre & Salles, 2014). This model is the combination of the mental representations created from the text and the stored information from the reader's mind (Kintsch; Van Dijk, 1978; Kintsch, 1988), which comprises decoding and comprehending.

In different words, within this framework, the subject is guided by mental propositions — those derived from the text (and its elements) and those arising from the reader's world knowledge. Consequently, reading is founded upon the reader's mental representations crafted from the lexical information and the propositions presented in the text. This synthesis is further enriched by the intricate interplay with previously stored knowledge in memory, alongside the reader's expectations and objectives related to the reading process, all occurring in dynamic feedback loops (Kintsch & Van Dijk, 1978; Kintsch, 1998; Kintsch & Rawson, 2005; Lopes, 2016; Giralddello, 2017; Baretta & Pereira, 2019). Figure 5 illustrates the CI model:

**Figure 5**

*The Construction-Integration Model (Kintsch & van Dijk, 1978)*



Source: Soares, Gonçalves, Jerónimo, & Kolinsky, 2023; adapted from Wharton & Kintsch, 1991.

Thus, this integration involves a meticulous examination of the language's minute elements and specificities, articulated with the apprehension of broader aspects from the text. It also incorporates the stored knowledge of the reader, acquired through experiences with the written code itself (Morais & Kolinsky, 2015). It is noteworthy that these discussions on reading, approaches, and models have hitherto centered on reading comprehension in the first language (L1), herein considered as Brazilian Portuguese. Consequently, it prompts the question into how the process unfolds in second language reading (L2), specifically in the context of English. Reading in an L2 can present considerable challenges, given its engagement with a distinct linguistic code. The subsequent section will explore this topic with more details.

## 2.2 Reading in a second language (L2)

Reading, as previously demonstrated, cannot be conceived as a static, basic, or superficial action. On the contrary, it is an active process that requires the reader to engage in both conscious and unconscious procedures, involving levels of cognitive processing that may be higher or lower to achieve an understanding of a text (Kleiman, 2013). Reading in an Additional Language, or L2, is not different in this aspect. Therefore, it remains a process of meaning construction through the activation and articulation of word features, linguistic structures, which are then combined with the readers' prior knowledge, in a dynamic adaptation of meanings (Dias, 1996; Gerber & Tomitch, 2008; Paiva, 2011; Lee, 2012; Kleiman, 2013; Chen & Chen, 2015). It continues to demand an interactive action from the reader, involving the retrieval of information from memory storage as well as from the information presented in the text, creating the necessary mental representations for the task (Kintsch, 1998; Paiva, 2010; Giralddello, 2017).

Nevertheless, it is important to highlight the relationship between both languages in the reading process, as there are multiple written codes involved in the practice. These are the second language, printed on the paper (or screen), which will be decoded by the reader, and the first language, which continues to be activated during the reading process and interact with the other (Grosjean, 2012; Finger, 2015; Finger, Brentano, & Arêas da Luz Fontes, 2018; Arêas da Luz Fontes, 2018). The connection between the L1 and the L2 is intrinsic when it comes to reading, as one supports the other in terms transfer of linguistic knowledge such as syntax, in order to produce meaning (Liu, 2008; Vasseur, 2013; Ke & Chan, 2017). Hence, the learner – being aware of it or not -, looks to the already established L1 as an initial and additional foundation to form hypotheses about the developing L2 (Jarvis, 2000; Jerônimo, 2012; Vasseur, 2013; Ke & Chan, 2017).

Vasseur (2013) explains that during reading, initially, the L1 serves as the natural and essential instrument, especially when both languages are closely related, such as Spanish and Portuguese. In such cases, transparent words and spontaneous translations can be employed. Consequently, the L1 facilitates the recognition of common elements across languages (Ke & Chan, 2017). Therefore, depending on the reader's proficiency in their second language, they may vary in their dependency of their first language during the reading exercise. A higher or lower dependency will determine the transfer of lexical, syntactic, and semantic schemes that support potential comprehension in the second language (Koda, 1990; Dias, 1996; Kato, 1999).

In this scenario, the learner does not achieve complete independence from the L1 when attaining higher proficiency in the L2. Instead, they utilize it for different purposes, such as monitoring and forming hypotheses during the practice of the second language (Vasseur, 2013). In summary, it can be asserted that both languages - L1 and L2 - interact during reading, with one providing linguistic support to the other and offering possibilities of meaning in the text (Godoy & Dias, 2014).

While some earlier studies proposed that the L1 and the L2 are situated in separate representational mental spaces, implying independent activations (Paradis, 1997), more recent research has demonstrated simultaneous co-activation of languages. In this process, the reader activates two (or more) lexical pathways that are not selective in terms of language, creating possibilities for recognition and comprehension (Brysbaert & Dijkstra, 2006; Libben & Titone, 2009; Miwa et al., 2014; Casaponsa, Carreiras, & Duñabeitia, 2015; Van Assche, Brysbaert, & Duyck, 2020). This means that during reading, the individual visualizes the code in the L2, but the L1 remains activated, interacting with the highlighted content and suggesting lexical options to the reader, who then automatically makes the decision (Van Assche, Brysbaert, & Duyck,

2020). This co-activation occurs because both languages are stored in an integrated lexical network where they intersect both orthographically and semantically (Schroter & Schroeder, 2016).

In this context, researchers have been actively studying lexical access and selection models with the aim of understanding how the system of linguistic decisions operates in readers. They investigate how the networks of L1 and L2 behave during comprehension (Kroll & Tokowicz, 2005; Toassi & Mota, 2015; Cop, Drieghe, & Duyck, 2015; Van Assche, Duyck, & Hartsuiker, 2016; Hopp, 2018; Van Hell, 2019). And one of the most widely discussed models in both theoretical and empirical studies is the *Bilingual Interactive Activation Plus* (BIA+).

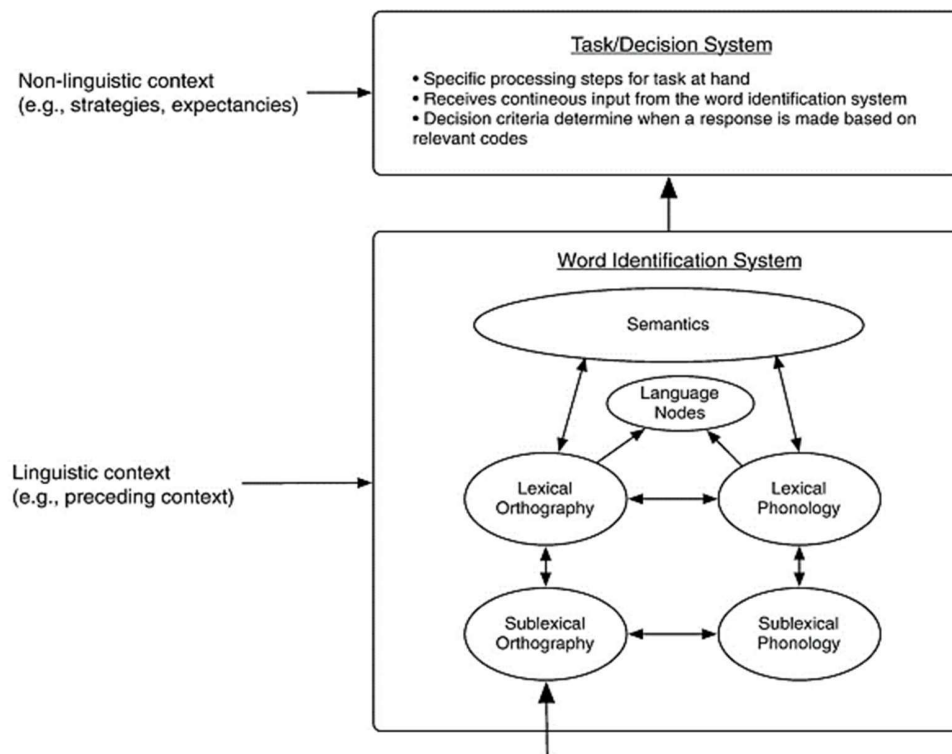
The BIA+ model (Dijkstra & Van Heuven, 2002) posits that word recognition is not selective. This implies that, during the process of accessing content in L2, the individual will simultaneously activate two lexicons (from L2 and L1). According to the authors, these lexicons are integrated and share the same semantic store. Thus, this activation presents a range of options for decision-making (Cop, Drieghe, & Duyck, 2015; Hopp, 2018; Van Assche, Brysbaert, & Duyck, 2020). Additionally, language selection and lexical decisions are determined by the tasks performed, as well as the semantic context (Kroll & Tokowicz, 2005; Van Hell, 2019). Figure 6 illustrates the model in discussion.

It is relevant to mention that the BIA+ model does account for what is referred to as cognate facilitation effect in reading (Van Assche, Duyck, & Hartsuiker, 2016; Cop et al., 2017). In languages that share some level of orthographic similarity, such as Portuguese and Spanish, there is often a total or partial overlap of features. This orthographic, phonological, and semantic similarity lead the BIA+ model to propose that the reader, encountering such words, activates all similar or equivalent representations (Marian et al., 2022). This process facilitates and expedites

attempts at lexical recognition based on the level of orthographic overlap (Van Assche, Duyck, & Brysbaert, 2013; Cop et al., 2017; Van Assche, Brysbaert, & Duyck, 2020). In other words, the degree of word activation in bilingual reading depends on the number of orthographic and phonological neighbors that automatically emerge, varying in terms of overlap. This, in turn, determines the level of competition and lexical selection during reading (Falandays & Spivey, 2020).

### Figure 6

*The BIA+ model (Dijkstra & Van Heuven, 2002)*



Source: Van Heuven & Dijkstra, 2010.

The study conducted by Brevik, Olsen, and Hellekjær (2016) with Norwegian preteen students who were successive bilinguals (Norwegian-English) provides an example of the proposed concepts. The researchers gathered data from public and private schools in Norway, involving individuals who were developing their reading abilities through school instruction. They



observed that reading competence in L1 (Norwegian) was the primary predictor of readers' proficiency in the second language. This was attributed to the lexical transparency of both languages, which facilitated interlinguistic co-activation and interaction between L1 and L2 (Brevik, Olsen, & Hellekjær, 2016). These findings are aligned with the previously postulated ideas by Vasseur (2013), Ke and Chan (2017), Van Assche, Duyck, and Brysbaert (2013), Van Assche, Brysbaert, and Duyck (2020), Falandays and Spivey (2020), and Cop et al. (2017) regarding the supportive role of one language to the other and simultaneous co-activation of codes.

Cognate facilitation, in its turn, plays a crucial role in second language acquisition as individuals rely on linguistic interactions between L1 and L2, where words share orthographical, phonological, and semantic representations, thereby accelerating comprehension (Libben & Titone, 2009; Santesteban & Schwieter, 2020). Consequently, a text containing a greater number of words that share orthography, phonology and semantics should, in theory, be easier for the reader to process. To provide a clearer understanding, the next section will offer a more detailed view of the cognate facilitation effect during reading.

### ***2.2.1 Cognate Processing during L2 Reading***

As previously explained, second language reading follows similar paths to first language reading but exhibits unique characteristics due to the presence of different codes. These codes may change the reader's input perception, activate distinct representations, as well as all known lexical items (Cop, Drieghe, & Duyck, 2015; Hopp, 2018; Van Assche, Brysbaert, & Duyck, 2020). In both languages, a set of stored memories (morphological, orthographic, semantic, syntactic, short-term, and related world knowledge) is activated. However, L2 reading specifically demands a higher cognitive cost from less experienced individuals, as they must deal

with both codes simultaneously. This involves a process of analysis, inhibition, adjustment, and reinforcement of meanings (Souza & Garcia, 2012).

Still about language processing, despite the inherent unique characteristics of idioms, instances of form and meaning similarity may arise, which is an indicative of the existence of cognates. This phenomenon typically occurs when linguistic codes share a common etymological root, exemplified by Romance languages such as Portuguese and Spanish, or Germanic languages like English and German (Toassi, Mota, & Teixeira, 2020). Those authors also mention that the origin of cognates can be explained by language borrows and contact, which allowed for an interchange between codes. In essence, this phenomenon reflects linguistic affinities that transcend national and geographical boundaries. The following table shows a few examples of cognate words (with partial or total orthographic overlap) between Portuguese and English, which are the languages investigated in this study:

**Table 2**

*Examples of cognate words between Portuguese and English*

<i>Word in Portuguese</i>	<i>Word in English</i>	<i>Orthographic overlap</i>
Perfume	Perfume	Total
Telefone	Telephone	Partial
Computador	Computer	Partial
Chocolate	Chocolate	Total
Universidade	University	Partial

Source: elaborated by the authors.

Thus, in the context of this study, cognates are defined as words that share lexical features across languages, i.e., orthography, phonology, and semantics (Conklin & Thul, 2023). Thus,

cognate words are those that exhibit total or partial overlap in orthographic form, sound, and meaning between two (or more) languages, implying linguistic coactivation by the reader (Costa, Caramazza, & Sebastian-Galles, 2000; Kleiman, 2011; Finger, 2015; Finger, Brentano, & Arêas da Luz Fontes, 2018; Lemhöfer, Huestegge, & Mulder, 2018; Marian et al., 2022). Consequently, cognate facilitation refers to the phenomenon wherein the presence of cognates expedites the word recognition process during reading in one of the languages of a bilingual individual (Libben & Titone, 2009; Cop et al., 2017; Van Assche, Duyck, & Brysbaert, 2013). Notably, cognate words and their facilitation during reading comprehension have become subjects of extensive research executed by (psycho)linguists and scholars specializing in bilingualism over the years (see also Jared & Kroll, 2001; Schwartz & Kroll, 2006; Poarch & Van Hell, 2012; Lauro & Schwartz, 2019; Rigatti & Arêas da Luz Fontes, 2022).

Considering those studies, it can be observed that researchers have been investigating cognates in different contexts. There are studies on cognate influence from L1 to L2 (Casaponsa, Carreiras, & Duñabeitia, 2015), and backwards – from L2 to L1 (Lemhöfer, Huestegge, & Mulder, 2018), and between languages with different scripts (Hoshino & Kroll, 2008; Zhang, Wu, Zhou, & Meng, 2019). These words have also been studied in isolation (Arêas da Luz Fontes, Brentano, Toassi, Sittig, & Finger, 2021; Gastman & Poarch, 2022; Krogh, 2022), in sentence context (Bultena, Dijkstra, & Van Hell, 2014; Bosma & Nota, 2020; Allen, Conklin, & Miwa, 2020), and embedded in longer texts (DeSouza, 2008; Cop et al., 2017). In addition to that, cognates have been studied in different modalities and activities, such as reading (Van Assche, Drieghe, Duyck, Welvaert, & Hartsuiker, 2011), writing (Woumans, Clauws, & Duyck, 2021), listening (Blumenfeld & Marian, 2007) and speaking (Sheng, Lam, Cruz, & Fulton, 2016). In general, most of these studies tend to show an advantage for cognates, compared to

non-cognates, in all modalities, since recognition is facilitated due to the language similarities in form, meaning and sound.

In this sense, the study carried out by Arêas da Luz Fontes et al. (2021) with bilingual children, for instance, investigated the processing of cognates read in isolation. The main objective was to explore whether the cognate facilitation effect would be replicated with bilingual children (Portuguese-English), in the same way it happens with adults according to the known literature on the topic. In order to verify that, the authors executed two experiments. In the first experiment, 53 Brazilian bilingual children were recruited. These students were enrolled in two different school levels: 3<sup>rd</sup> and 7<sup>th</sup> grades. The participants performed a lexical decision task, in which they had to read cognate words, noncognate words and pseudowords in both Portuguese and English. In each trial they were instructed to press the right button if the sequence of letters on the screen was a word in English or Portuguese, and the left button if the sequence of letters was not a real word.

The second experiment was conducted with 18 monolinguals, and they performed the same task, but in their L1 (English). Results showed that for both 3<sup>rd</sup> and 7<sup>th</sup> graders, a cognate facilitation effect was observed. In addition, when Brazilian children performed the task in their L1 (Portuguese), a cognate facilitation effect was not observed. It may indicate that their L2 (English) was not strong enough to influence their L1. In experiment 2, no cognate effect was found during the lexical decision task, which suggests that the outcomes from experiment 1 was due to the orthographic and semantic overlap between languages. Another assumption made by the authors was that these results endorse the language non-selectivity hypothesis (Arêas da Luz Fontes et al., 2021), which was already mentioned in this study.

In the context of cognates embedded in sentences, Bosma and Nota (2020), investigated the presence of cognate effect in sentence comprehension among bilingual children. The study involved 37 participants whose first language (L1) was Dutch, and second language (L2) was Frisian, a minority language. The researchers introduced a cognate reading task, where participants read sentences in both languages that included interlingual cognates, while their eye movements were monitored. The results highlighted the importance of children's proficiency levels in their L2 (Frisian) in influencing their performance. Participants with lower proficiency in their second language demonstrated a greater reliance on cognate reading to comprehend the sentences. Another finding was related to the degree of orthographic similarity: cognates characterized as perfect (with total overlap) were processed more quickly compared to those with partial overlap or non-identical words. The authors suggested that these findings align with previous research indicating that less proficient L2 readers tend to depend more on their L1 to comprehend sentences (Bosma & Nota, 2020).

Regarding cognate words embedded in longer texts, a study conducted by DeSouza (2008) discuss the relationship between cognate words and predictive reading strategies. The author argued that reading texts with a higher number of cognates would yield benefits in predicting reading outcomes. To investigate this connection, a group of bilingual adults proficient in both Portuguese and English undertook the reading of two scientific texts, each containing a different number of cognate words. The hypothesis posited was that the text with a higher prevalence of cognate words would elicit a greater number of predictions, ultimately resulting in superior comprehension performance. The results supported this hypothesis, revealing a significantly larger number of predictions made by readers when exposed to the text rich in cognates. Furthermore, there was a positive impact on comprehension in the reading test.

The text with a higher number of cognates not only facilitated a smoother reading experience for participants but also bolstered their confidence in reading (DeSouza, 2008).

Still in this context, it is noteworthy to consider the findings of Cop and colleagues (2017), who conducted a study involving bilinguals proficient in both Dutch and English. Their objective was to analyze cognate facilitation during the reading of extended texts, such as novels, using eye-tracking techniques. Additionally, the researchers sought to explore potential differences in the reading of cognates with varying degrees of orthographic overlap, distinguishing between those with complete overlap and partial overlap (see Table 3 for examples). For their experiment, the researchers tested a group of young adult university students engaging in silent reading of one of Agatha Christie's literary works in both their native language (L1) and their second language (L2). Eye movements were tracked during the reading process. The results indicated that cognate facilitation occurred during reading in both languages. Interestingly, the researchers also found that facilitation extended to partially overlapped words, even in L1 reading. These findings reinforce the non-selective nature of the reading process, demonstrating that code-switching and interaction occur even in one's mother tongue (Cop et al., 2017).

The investigations discussed here highlight the pivotal role of cognate words in second language (L2) reading comprehension. They serve to facilitate and expedite the reading process by fostering interaction between the first language (L1) and the second language (L2) (Libben & Titone, 2009; Santesteban & Schwieter, 2020). Additionally, cognate words contribute to inducing confidence and conviction, particularly benefiting less experienced readers in the comprehension task (DeSouza, 2008). Therefore, it becomes crucial for L2 reading classes to expose students to texts containing a significant number of cognate words. Also, it is important

to teach them about cognates, exploring what is called cognate awareness (Hernández, Montelongo, & Herter, 2016; Garcia, Sacco, & Guerrero-Arias, 2020). This approach is intended to better prepare readers to understand texts in the L2 by instructing them on what cognates are and to identify them throughout the texts (Proctor & Mo, 2012). This exposure not only aids in the recognition of words but also enables a faster and more precise comprehension of the text.

One study highlighting the advantages of cognate awareness in the L2 classroom was conducted by Garcia, Sacco, and Guerrero-Arias (2020). The authors presented findings from an experiment focusing on cognate instruction with children as L2 learners. Collaborating with teachers in a classroom, they sought to explore how cognate teaching and learning could facilitate English acquisition. The study participants consisted of third-year students who were emergent bilinguals, primarily Spanish-dominant speakers. Classes were predominantly conducted in Spanish, and the teachers aimed to transition gradually to English. The educators implemented cognate instruction sessions, during which participants received direct explanations about how words in the two languages could share similar or identical spelling, sound, and meaning. This approach aimed to heighten cognate awareness among the students, potentially facilitating their understanding and acquisition of English.

Following the initial instruction, teachers implemented various activities to contextualize the concepts taught. These activities included exercises such as matching columns and interactive games utilizing cognate words. During another session, reading and writing activities were conducted, revealing that most of the participants employed cognate words in Spanish to read and write in English. When questioned about their learning, most participants were able to recall the information imparted by their teachers regarding cognate words. Notably, one child expressed, "When you read and don't know all the words, you should think if you can identify

cognates. You can use the cognate words to help you comprehend better" (translated from Spanish). This observation suggests that teaching about the existence of cognates and cultivating cognate awareness can serve as a valuable tool to enhance L2 skills in the classroom (Garcia, Sacco, Guerrero-Arias, 2020)

The studies mentioned above have delved into L2 reading with cognate facilitation across diverse text formats: isolated words (Arêas da Luz Fontes et al., 2021), embedded in sentences (Bosma & Nota, 2020), and within more extensive content such as scientific texts (DeSouza, 2008), novels (Cop et al., 2017), and short stories (Garcia, Sacco, and Guerrero-Arias, 2020). Consequently, beyond the ongoing discussions on cognate words in comprehending different codes, it is relevant to understand how L2 reading functions across various text formats. This sets the stage for the next aspect of our discussion.

### ***2.2.2 L2 Reading through Text Genres***

In the context of the present study, it has been emphasized that the act of reading involves the activation of various memories stored in long-term memory (Baddeley, 2011). This activation is a result of the cognitive demands necessary for comprehending a given text. Additionally, as mentioned earlier, the collection of memories accumulated over time, derived from the reader's practices with words and their constituents, as well as the subject's experiences and studies, is referred to as prior knowledge (Smith, 2003; Allende & Condemarín, 2005).

In this sense, Kleiman (2008) outlined that a reader's prior knowledge comprises three subdivisions: linguistic knowledge, world knowledge, and textual knowledge. Linguistic knowledge is influenced by an awareness of the code in which the text is written, encompassing its components such as orthographic, lexical, syntactic, and semantic elements (Perfetti, 2007). In the context of L2 reading, the focus of this study, the reader's prior linguistic knowledge



becomes essential. It is activated to enable the reader to recognize the underlying linguistic aspects in both languages, L1 and L2 (Kato, 1999; Ke & Chan, 2017).

World knowledge, on the other hand, is formed by an individual's life experiences, cultural exposure, and social interactions (Alliende & Condemarín, 2005). It primarily comprises knowledge acquired through events personally encountered by the reader, stored in accordance with Rumelhart's (1984) conception of cognitive schemata. These schemata are activated based on the specific reading situation the reader finds themselves in. When engaging with a text, the reader draws upon their prior world knowledge in both L1 and L2 to identify general information contained in the text.

The third element is the textual knowledge. It pertains to the structure of the text and how it is presented to the reader. Kleiman (2008) underscores the significance of this knowledge, along with linguistic and world knowledge, in the reading process. Textual knowledge plays a crucial role during reading, as it contributes a set of meanings and concepts about the text, shaping and altering the reader's perception of the content. In the context of L2 reading, prior textual knowledge in the L1 proves beneficial for comprehension (Kato, 1999). It assists the reader in pre-identifying the text's goals through the analysis of sentence structures, titles, subtitles, and other macrostructural elements that may unfold before them (Kleiman, 2008).

The interaction between the reader and the text, facilitated by textual structure, holds particular significance in second language reading. This is because a text typically serves a purpose – to convey a message to the reader. The message is often structured in specific patterns known as textual genres (Pereira & Scliar-Cabral, 2012). Textual genres, by nature, possess defined compositions, structures, content, and styles, and manifest in various social contexts, each with specific goals. For instance, a medicine leaflet can be cited as an example of a textual

genre. This text is designed to inform the reader about the components of a particular medicine, its dosage, potential side effects, and more. To comprehend the nature of the text as a medicine leaflet, the reader must draw upon their textual, linguistic, and world knowledge, discerning its structure, language, and general information about the subject. In this process, the reader not only gains textual competence (Kleiman, 2008) but also develops textual awareness (Alliende & Condemarín, 2005; Pereira & Scliar-Cabral, 2012).

Textual competences are developed through intellectual and social practices, as previously mentioned, within the readers' life environment. Kleiman (2008, p. 20, our translation) emphasizes that 'the more textual knowledge the reader has and the more it is exposed to all kinds of text, the easier will be its comprehension'. In other words, success in reading textual genres is closely tied to the individual's textual competences. These competences are, in turn, acquired through frequent exposure to a variety of text formats and structures both in the first and second languages.

Textual awareness, in contrast, is cultivated through the analysis of text structure, cohesion, and coherence. It involves the examination of linguistic aspects and the storage of this information in a person's neural pathways for subsequent use in processes like bottom-up and top-down, as previously discussed in this paper (Pereira & Scliar-Cabral, 2012; Abreu, 2017). It can be asserted, therefore, that textual competence becomes automated over time, whereas textual awareness does not undergo automation as it necessitates structural control and analysis. As discussed earlier, it constitutes a metacognitive process (Baker & Brown, 1980; Kato, 1999; Woelfer, Tomitch, & Procailo, 2019).

Therefore, to foster the development of both textual awareness and competences related to the text, second language reading researchers advocate for engagement with L2 reading of

various textual genres. Paiva (2010), for instance, endorses the incorporation of diverse text genres, adapting to the reader's fluency level. According to her, a gradual approach is essential for novice learners of a second language, commencing with simpler and less complex genres like short news, menus, simple poems, cards, recipes, and other examples. Through the step-by-step cultivation of textual competence (and textual awareness) (Pereira & Scliar-Cabral, 2012) with these accessible genres, learners can progress to more intricate ones, such as biographies and short stories, thereby enhancing their reading skills (Paiva, 2010).

Research debating the development of reading skills through text genres has been done in the past years. For instance, Negretti and Kuteeva (2011) developed a study, in which they aimed to observe how metacognition, specifically text awareness (Pereira & Scliar-Cabral, 2012), could assist in the reading of research articles with different structures. The participants in their study were undergraduates learning English at a Swedish university. They engaged in reading activities involving both experimental studies and bibliographic reviews in English.

The task assigned to them was to write comments about the material, focusing on text goals, vocabulary, structure, and the main audience. Qualitative analysis of the answers revealed that participants utilized metacognition to discern differences between the articles. In both empirical and literature review articles, they were able to identify information requiring different degrees of processing, such as pinpointing main and secondary objectives, identifying research gaps, reviewing previous studies, and understanding research methods. The authors concluded that it is not only important to work with different genres but also to delve deeper into each one, aiming to develop metacognition and awareness specific to their distinct structures. In summary, this study suggests that even within genres, there are dissimilar aspects that demand attention (Negretti & Kuteeva, 2011).

When it comes to L2 reading, it is possible to cite a few studies that have been conducted to comprehend how genres are processed in a second language. Tomitch (2003) worked on genre analysis, articulating it with second language proficiency. Her goal was to highlight aspects pertaining to the perception of textual structure during reading. She observed that more proficient and experienced readers in L2 demonstrate an enhanced ability to readily identify textual information. Additionally, these readers can formulate strategies for analyzing text structure to make predictions (Tomitch, 2003). This aligns with the assertions made by Kleiman (2008) and Paiva (2010) earlier regarding the reader's exposure to a diverse range of textual genres. Such exposure contributes to improved reading proficiency by fostering familiarity and prior knowledge about various text formats.

An experiment that sheds light on the relationship between textual genres and previous knowledge was conducted by Shardakova (2016). The researcher aimed to analyze the reading process of Americans learning Russian through humor texts. Short comedy passages written in Russian, alongside control informative articles, were utilized to assess the participants' performance in textual comprehension. The study also sought to observe the extent to which the reading process was influenced by the genre structure, taking into account the proficiency in Russian exhibited by the individuals. The primary hypothesis posited by the author was that, due to the dependency of the comedy genre on linguistic and cultural triggers, American participants would exhibit lower comprehension performance compared to native Russians, who were also part of the study.

Indeed, participants learning a second language displayed greater limitations and comprehension gaps in the humorous text, primarily due to a lack of cultural knowledge. They also exhibited insufficient proficiency in the second language, a limited grasp of typical Russian

expressions, and a lack of text competence in the genre. The author emphasizes that, in the reading of genres in a second language, one must consider not only vocabulary fluency but also extralinguistic aspects, such as beliefs and cultural elements that surround the language and the people who use it (Shardakova, 2016).

Thus, it is possible to understand that proficiency in the L2 and prior knowledge are relevant factors in comprehending various text genres. To explore these elements, Yoshida (2012) conducted a study comparing different textual genres. The researcher tested two groups of Japanese university students learning English through the opinion genre, focusing on deforestation, and the biography genre, centered on the educator Maria Montessori. Yoshida (2012) hypothesized that L2 reading performance would be higher with the biography text, anticipating that students would remember more information from it. According to the author, this expectation stemmed from the fact that the biography genre employs lexical structures more familiar to the readers than the exposition text about deforestation, which demands a more specific vocabulary knowledge. In other words, the biography genre activates more prior linguistic, textual, and world knowledge since the students are more familiar with the genre and language used. The results obtained by Yoshida (2012) indeed supported the hypothesis: readers memorized more information when engaging with the biography genre in the additional language, benefiting from their greater prior knowledge about the theme and their specific familiarity with the genre.

These results align with Pereira and Scliar-Cabral (2012). The authors mention that reading various text genres necessitates distinct levels of reading processing, as each genre possesses its own structure and specific vocabulary. Beyond that, there has been evidence of different brain circuitry being recruited during reading of distinct text genres (Aboud, Bailey, Del

Tufo, Barquero, & Cutting, 2019). Building on this idea, Kraal and colleagues (2017) emphasize that genres like narrative and expository texts exhibit differences in content variability, information density, and how the information relates to the reader's experience. It can be argued that diverse genres construct varied linguistic representations, which, in turn, contribute to the formation of specific propositional networks. Over time, these networks evolve into more elaborated propositional networks or situation models of the text, aligning with the Cognitive Integration (CI) model mentioned earlier (Kintsch & van Dijk, 1978; Kintsch, 1998; Kintsch & Rawson, 2005).

In this sense, Wolfe (2005) also posits that different text genres trigger different text representations, as well as distinct learning strategies from the reader. According to this author, narrative texts demand attention on a chain of actions in a story, which may encompass different characters. Expository texts require attention to factual events which may be present in the subject's life. Additionally, Kraal et al. (2017) and Wolfe (2005) agree that both narrative and expository texts differ in terms of structure, vocabulary, syntax, places where readers read them, and thus, demand distinct levels of processing (see also Linderholm & van den Broek, 2002 and Aboud, 2019, for a neurobiological view of this phenomenon).

Thereby, comparing genres, as proposed by this research, offers insights into how readers engage with, process written content, and construct these linguistic propositions in diverse situations. In line with this inquiry, akin to the aforementioned study by Yoshida (2012), numerous other research endeavors analyze participants' performance across different genres. However, it is notable that the majority of these studies primarily focus on genre reading within the participants' first language (L1).

An example of such a study is the work conducted by Denton et al. (2015), in which adolescents were recruited to perform genre reading tasks. The study aimed to investigate the production of inferences, paraphrasing, and monitoring by the participants during the reading of informative and narrative texts — similar to the ones used in this study. The participants (n = 325) were categorized into adequate comprehenders (n = 160) and poor comprehenders (n = 165). They read narrative and informative texts that encompassed two levels of difficulty: accessible and challenging. The authors employed think-aloud verbal protocols to assess students' comprehension in both genres and at both levels of difficulty. Among the results, it was found that poor comprehenders exhibited significantly lower capacities for inferencing and paraphrasing in both genres and at both levels of difficulty compared to the group of adequate readers. Additionally, poor readers demonstrated significantly lower abilities for inferencing and paraphrasing in informative texts compared to narratives. Adequate readers displayed enhanced skills in inferencing, paraphrasing, and monitoring, particularly in the challenging narrative text compared to the challenging informative text. This outcome was anticipated by the authors, who suggested that informative texts might pose greater challenges due to their vocabulary and syntactic complexity (Denton et al., 2015). Despite the study being conducted in their first language (English), these findings can be related to reading in the second language (L2), considering it as a challenging exercise, especially among younger learners such as teenagers.

In conclusion, considering the research and discussions presented, it becomes essential to recognize the benefits of L2 reading across various textual genres. Engaging with diverse genres enhances adaptive, linguistic, and cultural skills, as well as text awareness and competence (Alliende & Condemarin, 2005; Kleiman, 2008; Pereira & Scliar-Cabral, 2012). The transfer of perceptions gained from reading different texts is evident in empirical studies conducted by

researchers in related fields. This transposition of skills and awareness should not only be confined to research settings but also be integrated into different environments, such as schools, to aid in the reading development of basic education students. Competence and awareness in reading any textual genre, whether in L1 or L2, can be improved and effectively taught in the classroom. This topic is further detailed in the next section.

### **2.3 Reading in the Classroom**

As previously highlighted in this dissertation, engaging in the practice of reading not only grants individuals improved access to life in society but also enables them to interact with cultural and scientific materials, such as books. However, reading is not a skill acquired effortlessly or without the need for systematic instruction, as speech (Consenza & Guerra, 2011; Dehaene, 2012; Izquierdo, 2018; Lent, 2019). These authors assert that reading 'needs to be taught,' emphasizing the necessity to establish brain circuits that support it, a process achieved through dedication and practice (Consenza & Guerra, 2011, p. 101). For the majority of individuals, this practice, which is crucial for securing access to scientific and cultural assets over time, occurs within the school setting, requiring systematic appropriation (Souza & Garcia, 2012).

In theory, over the years, schools have evolved into spaces for multifaceted learning. Within the school environment, individuals not only acquire theoretical knowledge but also engage in personal and epistemological interactions that contribute to cognitive development (Pereira & Scliar-Cabral, 2012). As proposed by Kubo and Botomé (2001), the teaching and learning of concepts and skills within this institution involve a dynamic process of interactions between students and teachers. These interactions comprise complex behaviors from both groups, leading to modifications in their perceptions of knowledge. Reading then is introduced as



an integral part of this interactive process of knowledge acquisition (Alliende & Condemarín, 2005; Kleiman, 2008).

The potential for fostering meaningful and transformative reading experiences that empower students as social beings depends on an environment that facilitates the development of this phenomenon. Ideally, the school should serve as such a place. However, there are limitations within these institutions, particularly in the case of public ones, which struggle to deliver quality education (Rosso, 2015). Pereira and Scliar-Cabral (2012) highlight infrastructure issues such as poorly maintained classrooms, a lack of equipment, and insufficient spaces designed to address the complexity of reading and provide stimulation, such as libraries. Additionally, pedagogical challenges arise, including a shortage of qualified professionals dedicated to reader training and a lack of incentives for teachers' ongoing professional development<sup>7</sup> (Solé, 1998; Pereira & Scliar-Cabral, 2012; Rosso, Cambuta, & Cardoso, 2016).

The training for reading, ideally conducted in stimulating environments, commences in the early years of Elementary School. During this phase, students are immersed in phonological knowledge related to letters, word formation, and sentence construction, gradually building their reading skills. The initial stage involves a more elementary form of reading known as decoding<sup>8</sup> (Souza & Garcia, 2012; Scliar-Cabral, 2021), wherein students achieve a superficial level of comprehension focused on morphophonological aspects of the language. Progressing beyond this

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<sup>7</sup>While this research will not extensively explore the challenges associated with promoting reading in schools, it is recommended to refer to Rosso's (2015) work. This study delves into the reading situation within public schools, specifically examining teacher qualifications and reading environments within institutions, with a particular focus on libraries.

<sup>8</sup>In this work, the constructs of decoding and literacy will not be extensively explored. For a more comprehensive understanding of these topics, it is recommended to refer to Scliar-Cabral (2021), and chapter 2 of the book by Souza and Garcia (2012) titled 'Leitura emergente: a alfabetização como chave à produção de sentidos a partir do escrito'.

stage, reading comprehension skills are developed, not only through access to the written code itself (Ferreira & Dias, 2002) but also through the combination of significant stimuli, practice, and exposure to various text genres. This exposure allows individuals to attain the necessary levels of comprehension, ultimately solidifying their identity as proficient readers (Consenza & Guerra, 2011; Souza & Garcia, 2012).

Both positive stimuli – such as the exposure to various text genres, and negative stimuli – such as the lack of meaningful practices and materials (Pereira & Scliar-Cabral, 2012), have implications in the L2 reading development. Additionally, L2 reading, from an educational perspective, has its own limitations, compared to L1 reading in the classroom. Firstly, the time allocated in school for working with L2 is generally shorter compared to the time dedicated to L1 in class (Marzari & Gheres, 2015; Rosso & Arêas da Luz Fontes, 2023). Secondly, the efficiency of the work with L2 reading is not always guaranteed, as the teaching of reading in an additional language adopts different execution perspectives. As previously stated, L2 reading occurs similarly to L1 reading — it remains as a dynamic act of comprehending a written code, involving the recognition of minimal elements such as letters and phonemes, as well as the activation of consolidated previous knowledge and its manipulation along with new stimuli (Perfetti, 2007; Paiva, 2011; Kleiman, 2013). However, given that these are distinct codes, the teaching of reading needs to incorporate different strategies. This is due to the idea that L2 reading can be more challenging for students. In general, and in the case of this study, there is an imbalance between languages in the bilingual brain, in which L1 is often more dominant compared to the L2 (Vasseur, 2013; Godoy & Dias, 2014; Degani, Prior, & Wodniecka, 2022).

In a broad conceptual context, Paiva (2011) asserts that the teaching and learning of reading in an additional language should be perceived as an ongoing process of reconstructions.

In this process, 'the object to be apprehended is a new culture, a new world view, a new discourse form, and not merely a new linguistic code, formal, to be memorized, completely detached from its subjectivity' (p. 130). This perspective aligns with other opinions that highlight how, despite the aim for effective instruction, the teaching of L2 reading often aligns with language practices centered on grammatical exercises, lacking any meaningful cognitive purpose (Kato, 1999; Silva, 2001; Paiva, 2011; Kleiman, 2011). Thus, from this standpoint, there is a perceived need for a teaching and learning process that focuses on the development of autonomous and culturally conscious bilingual individuals. This approach aims to value the pragmatic aspects of language, transforming bilingual students into socially active individuals rather than mere repositories of information.

Beyond the sociological perspective on the topic, it is important to delve into the psycholinguistic aspects that bear implications in the teaching and learning of L2 reading. One of the central aspects, widely addressed in today's classrooms, is vocabulary acquisition. Success in reading an additional language hinges on the reader possessing a sufficient lexical repertoire for effective word recognition during comprehension activities (Pietraróia, 1997; Perfetti & Hart, 2002; Perfetti, 2007; Kleiman, 2011). It is acknowledged that as students in L2 develop a more extensive lexical knowledge, they will experience greater ease in processing the language. And, as discussed earlier, this broader lexical repertoire provides a range of options emerging from both codes, aiding decision-making during reading, as suggested by the BIA+ (Dijkstra & Van Heuven, 2002; Cop, Drieghe, & Duyck, 2015; Hopp, 2018; Arêas da Luz Fontes, 2018; Falandays & Spivey, 2020). Therefore, it can be asserted that the reader's performance in reading tasks in L2 improves with an increased linguistic knowledge base, allowing for more varied choices and options during the reading process.

However, it is neither necessary (nor possible) for students to master all the elements comprising a language's vocabulary. In instances of doubt, they can resort to lexical inferences — deductions made based on the contextual cues surrounding the vocabulary word (Kleiman, 2011; Oakhill, Cain, & Elbro, 2017). In addition, there are other aspects related to reading in L2 that need attention in the classroom. Some authors highlight the importance of considering the student's prior knowledge, encompassing linguistic, textual, and world knowledge (Silva, 2001; Kleiman, 2008). Kleiman (2011) also underscores the relevance of developing activities related to vocabulary acquisition and activation of it.

Additionally, there is an emphasis on offering materials that tap into the student's world knowledge. Therefore, during reading tasks, it is important to use materials in the L2 that facilitate lexical recognition, incorporating cognates and words frequently used by students (Proctor & Mo, 2012; Hernández, Montelongo, & Herter, 2016; Garcia, Sacco, & Guerrero-Arias, 2020). Moreover, employing textual genres familiar to students (prior textual knowledge) and addressing topics they are familiar with (prior world knowledge) is also relevant (Pereira & Scliar-Cabral, 2012). This approach ensures the activation of appropriate cognitive schemas (Rumelhart, 1984), facilitating the manipulation, selection, and conversion of new information into permanent memories through effective learning (Dias, 1996; Smith, 2003; Souza & Garcia, 2012).

Paiva (2010) similarly emphasizes the importance of employing both bottom-up and top-down processing in L2 reading, as discussed in this research. According to this author, students should explore the text for linguistic representations that support their hypotheses based on their mental representations of world knowledge (Kintsch, 1998). Likewise, Pietraróia (1997) highlights the advantage of teaching students to make predictions in L2 reading. She notes that

'prediction and comprehension go hand in hand,' and in an additional language, 'for the student to understand a text, they must have already asked questions, made hypotheses, and know how to use their world knowledge' (Pietraróia, 1997, p. 68). This same author endorses, along with Paiva (2010), Kintsch's Construction-Integration model (Kintsch & Van Dijk, 1978; Kintsch, 1988; Kintsch, 1998; Kintsch & Rawson, 2005), already mentioned in this work, as a way of comprehending reading through representations emerging from the text. These representations interact with the reader's conceptualizations, consolidating perceptions from the smallest textual units to an overall understanding of the text.

In conclusion, it is argued that the teaching and learning of reading, both in L1 but especially in L2, should be a cognitively enriching process for the student. This approach enables them to view themselves as engaged participants in their own learning course, identifying aspects of their knowledge in second language texts and being motivated to comprehend even the minimal aspects of the code. From a reader, therefore, it is expected not to be passive but rather someone who perceives the text in L2 (in different genres) as an opportunity to enhance their linguistic knowledge. This involves making necessary associations with their L1, forming hypotheses, and negotiating meanings throughout the process (Lapkoski, 2012; Vasseur, 2013). Importantly, this reading training is not limited to adulthood; it should start in the early years of schooling and continue to develop during adolescence, as discussed later.

### ***2.3.1 L2 reading with teenagers***

The process of teaching and learning to read in a second language (L2) demands increased cognitive effort and the application of distinct strategies. This is attributed to the involvement of diverse codes and the incorporation of prior knowledge in a language that may or may not be familiar to the reader. This knowledge encompasses linguistic aspects, such as lexical

bundles, as well as textual elements, including genres and textual types, and broader world knowledge, encompassing cultural and general domain knowledge (Kleiman, 2011).

Consequently, it becomes important to prioritize such knowledge within the classroom, placing emphasis on these L2-specific aspects. By doing so, students are better equipped to comprehend texts in a language that may be outside their usual domain, enabling them to read bilingually with greater ease or, at the very least, with reduced difficulty (Kovács, 2018).

The act of reading in a second language, particularly among adult individuals, may not pose a significantly higher level of difficulty. This is because adults have already undergone a linguistic trajectory, encompassing either their first language (L1), second language (L2), or both (Liu, 2008). Assuming that less experienced L2 readers generally rely on their L1 to formulate hypotheses about content (Vasseur, 2013; Brevik, Olsen, & Hellekjær, 2016; Ke & Chan, 2017), it can be inferred that adults, having a more advanced development in their first language, are better equipped to deal with lexical properties, sentence structures, as well as to make predictions about the second.

Another crucial factor is their familiarity with L2 vocabulary. Proficient readers tend to excel in identifying and processing high-frequency words (Brown, 2013; Brysbaert, Mandera, & Keuleers, 2018) due to increased exposure and practice with the second language lexicon. Furthermore, as adults, there is a higher likelihood that their memories are well-developed, indicating robust cognitive foundations enriched with linguistic information (Pietraróia, 1997; Liu, 2008). This enhanced cognitive capacity stimulates the manifestation of lexical representations in the bilingual mind, facilitating the reading process in both L1 and L2 (Duyck et al., 2007; Miwa et al., 2014).

The cognitive effort stemming from pre-existing experiences in second language (L2) reading tends to be more challenging for teenagers compared to adults. This difficulty arises from the notion that, at a younger age, individuals typically accumulate fewer linguistic experiences, particularly when they are successive bilinguals rather than simultaneous, as per the terminology of Finger and Ortiz-Preuss (2018). According to these authors, successive bilinguals are the subjects who learned one language after the other. In contrast, simultaneous bilinguals are the ones who learned their languages since birth. Thus, adolescents who are successive bilinguals tend to feel more difficulty on L2 reading, at least in their first stages of L2 learning, since their languages are still unbalanced.

In other words, teenagers who fall into the category of successive bilinguals, and particularly those who are incipient, i.e., are still in the process of developing their L2 skills (Finger & Ortiz-Preuss, 2018), may often encounter greater challenges in L2 reading. This is also the case of the participants in this study. Thus, as previously mentioned, this increased difficulty may be in part attributed to the cognitive demands imposed by their limited experience. The lack of cognitive background in the L2 may contribute to the complexity of L2 reading, when compared to adults (Liu, 2008).

However, the adolescent population possesses a distinct advantage in the learning process compared to adults, known as neural plasticity. Essentially, it is the brain's capacity to modify and adapt in response to stimuli (Dehaene, 2012; Finger, Brentano, & Arêas da Luz Fontes, 2018). Consenza and Guerra (2011) emphasized this aspect by stating that the brain exhibits high plasticity during the first years of life, with a significant ability to form new synapses, attributed to the extended period of brain maturation, which persists into the teenage years (p. 35). This suggests that, during childhood and youth, the brain is still developing and possesses a greater

facility for modification. This is a characteristic not as prominent in adults, in which the organ is already consolidated, leading to reduced plasticity (Morais, Kolinsky, & Grimm-Cabral, 2004; Consenza & Guerra, 2011; Lent, 2019; Dehaene, 2020). It is worth mentioning that reduced neural plasticity does not preclude adults from learning to read in a second language.

Nevertheless, the comparison to a child or a teenager, who are experiencing a dynamic phase of discoveries, highlights the unique advantages associated with the malleability of the younger brain (Lent, 2019; Dehaene, 2020).

Hence, the process of learning to read in a second language (L2) from the perspective of teenagers exhibits is two-faced: one that poses challenges due to insufficient prior knowledge for comprehending the text (Liu, 2008) and another that facilitates learning owing to the advantageous neuroplasticity inherent in adolescence (Consenza & Guerra, 2011; Dehaene, 2012; Lent, 2019; Dehaene, 2020). These perspectives can complement each other, considering that initially, individuals may find an L2 code unfamiliar, leading to initial difficulties in reading. However, with time and cognitive adaptation facilitated by neuroplasticity, these challenges tend to diminish as the child or teenager becomes more familiar with the lexicon, thereby enhancing proficiency in bilingual reading. To achieve this, effective L2 reading practices within the classroom are essential. These practices should include the activation of students' prior knowledge through diverse textual genres and teaching strategies (Solé, 1998; Paiva, 2010; Nicolaidis & Tilio, 2011; Morais & Kolinsky, 2015).

In this sense, the L2 classroom demands efforts in creating an optimal learning environment, particularly concerning the development of bilingual students' competence in reading. This involves prioritizing metacognitive aspects of reading, such as setting objectives, identifying main ideas, allocating attention effectively, engaging in self-monitoring of learning,



and implementing self-correction when necessary (Woelfer, Tomitch, & Procailo, 2019). Thus, there is a need to emphasize both instructional and affective dimensions of reading. This includes the careful selection of relevant texts across various genres for significant activities, enabling an easier activation of the text elements to be decoded, as well as the access to the prior knowledge (Alliende & Condemarín, 2005; Paiva, 2010).

Recent studies in L2 reading instruction provide compelling evidence for the importance of relevant activities in educational settings, especially with adolescents. For example, Gamboa-Gonzalez (2017) conducted research with sixth-grade students in a Colombian school, where Spanish was their L1, and English was their L2. The study demonstrated that these students could enhance their proficiency in reading the additional language through an interactive instructional model. The researcher conducted training sessions on reading using both bottom-up and top-down approaches, as well as engaging the students in reading comprehension tasks. The instructional objective was to guide students through the gradual decoding of textual elements (letters, words, sentences) using an ascending model, alongside a descending model. In the latter, readers employed their world knowledge, hypothesized, and made predictions based on mental representations of the topic (Kintsch, 1998; Kato, 1999; Kintsch & Rawson, 2005; Kleiman, 2008; Paiva, 2010; Abreu, 2017). The positive outcomes were attributed to the fact that students actively assumed the role of agents during the reading process, making autonomous decisions informed by their acquired knowledge and memories (Gamboa-González, 2017).

Another study investigating the dynamics of teaching and learning L2 reading in the classroom is that of Brevik (2019). The research analyzed a series of English L2 reading classes in a Norwegian school with the aim of identifying patterns of relevant learning resulting from selected activities. Brevik observed that students in the ninth grade, with Norwegian as their L1

and English as their L2, exhibited higher engagement and motivation when teachers introduced diverse textual genres into the classroom. These genres included short tales, poems, lyrics, and digital texts (Brevik, 2019). These findings align with the earlier discussion on the significance of reading diverse genres to foster the development of textual competence and awareness (Alliende & Condemarín, 2005; Pereira & Scliar-Cabral, 2012).

Additionally, Brevik (2019) suggests that several factors contribute to students' reading improvement. First, she emphasizes the significance of the metacognitive process facilitated by teachers, involving encouraging students to reflect on their reading. This includes posing questions about the content and eliciting opinions from students (Woelfer, Tomitch, & Procailo, 2019). Second, Brevik (2019) underscores the effectiveness of teaching and learning strategies based on scaffolding<sup>9</sup>, wherein both teacher and student provide support during periods of language difficulties. This approach assists students in overcoming comprehension barriers, fostering autonomy, and enhancing fluency in L2 reading.

Hence, it is possible to acknowledge that reading in an L2 for incipient bilingual teenagers may initially be marked by instability, primarily due to the unfamiliarity posed by words in a different code. However, with consistent reading exercises and exposure to various learning practices, such as engaging with different textual genres (Brevik, 2019), coupled with the encouragement of a more interactive reading approach by teachers (Kintsch, 1998; Kintsch & Rawson, 2005; Kleiman, 2011; Gamboa-González, 2017; Abreu, 2017), these initial difficulties tend to diminish. In addition, this trajectory is further facilitated by the development of cognitive

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<sup>9</sup> Scaffolding may be understood as the support provided by teachers to students in their specific needs during learning process (van de Pol, Volman, Oort, & Beishuizen, 2015). For further clarification on this term, as well as its applicability in teaching reading, you can also consult the works of Rodgers et al. (2016), and Reynolds and Daniel (2017).

and metacognitive tools, which may grant an enhancement and adaptation of knowledge (Kato, 1999).

Regarding to this, it is possible to say that the instruction and acquisition of L2 reading may take diverse approaches and utilize various instructional tools within a classroom. According to Gamboa-González (2017), the construction of an active and engaged reader goes through teaching the student to employ strategic approaches to comprehend a text. Thus, the incorporation of reading strategies in the classroom has been shown to yield enhanced results in reading comprehension, both in L1 and L2. Subsequent sections will delve deeper into comprehensive reflections on this topic, exploring the applicability and functionality of these tools within the language classroom.

### **2.3 Reading Strategies**

Based on the previously mentioned studies, a relationship between teaching and learning of reading in L2 and meaningful practices in the classroom was observed. This involves the interactive approach to reading comprehension, encompassing both the bottom-up and top-down processes, along with the incorporation of diverse textual genres in instruction (Kleiman, 2011; Gamboa-González, 2017; Brevik, 2019). Concurrently, efforts focused on the development of students' metacognition appear to yield positive effects. In this regard, students actively engage in self-monitoring, self-correction, and adaptation of meanings during reading (Brevik, 2019; Woelfer, Tomitch, & Procailo, 2019).

These findings hold significance concerning the educational indices in Brazil over recent years, as previously addressed in the introduction of this dissertation. It is noteworthy that the Brazilian educational scenario, in comparison to other countries assessed by PISA, is unfavorable (Souza & Garcia, 2012; OCDE, 2023). Similar trends are observed in national

assessments, encompassing school indices like the IDEB and adult-related indices such as the Functional Illiteracy Index (Indicador de Analfabetismo Funcional - INAF<sup>10</sup>) (Pereira & Scliar-Cabral, 2012; Kenedy, 2018).

In light of these challenges, discussions revolve around exploring alternatives to address these issues and enhance indices through reading exercises and comprehension. Simultaneously, there is a need to foster the development of more fluent and autonomous readers, whether in L1 or L2 (Paiva, 2011; Kleiman, 2011). This is where the role of metacognition along with learning becomes particularly evident.

The exploration of metacognition in the context of school instruction processes, particularly in reading (both in L1 and L2), has been a subject of extensive discussion over the past few decades (Baker & Brown, 1980; Carrell, 1989; Kato, 1999; Kleiman, 2008; Minguela, Solé, & Pieschl, 2015; Bilici & Subaşı, 2022; Wang, Hu, An, Li, & Zhao, 2023). Moreover, scholars have deliberated on the implementation of these metacognitive processes within the pedagogical environment. It has been suggested that integrating metacognitive processes into instructional practices for reading contributes significantly to effective text comprehension, fostering the development of competent readers who can regulate their own learning paths (Pietraróia, 1997; Oakhill, Cain, & Elbro, 2017). Therefore, it is important for schools to promote efficient reading practices that encourage students to monitor their own learning. By adopting conscious practices, schools can cultivate strategic readers (Solé, 1998; Serra & Oller, 2003; Souza & Garcia, 2012; Kleiman, 2013; Wang et al., 2023).

To cultivate a strategic reader, it is essential to instruct individuals on how to effectively utilize their learning tools, facilitating improved comprehension of texts in both L1 and L2.

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<sup>10</sup> For further information, visit <https://ipm.org.br/inaf>

Among these tools, reading strategies play a crucial role (Solé, 1998; Kato, 1999; Paiva, 2010; Kleiman, 2013; Santos, 2013; Ke & Chan, 2017; Friesen & Haigh, 2018; Kovács, 2018).

Reading strategies, broadly defined, are defined as "actions taken by an individual in order to achieve a goal in their use and/or learning" (Santos, 2013, p. 18, translated by the author). In other words, strategies are employed to attain higher levels of knowledge, a process that unfolds through the comprehension of reading.

In more specific terms, reading strategies can be described as regular cognitive methods employed when engaging with a given text (Kleiman, 2013). These methods necessitate that the reader establishes objectives, analyzes outcomes, and continually verifies their learning progress (Serra & Oller, 2003). This involvement enables the reader to monitor their own behaviors during reading, aligning them with pre-established objectives and hypotheses (Solé, 1998). Pereira and Scliar-Cabral (2012) further assert that these reader movements depend on the situation encountered during text comprehension, emphasizing that "successful performance in reading comprehension lies in choosing the most efficient process to deal with the situation, in which variables interrelate and influence the reader's decisions" (Pereira & Scliar-Cabral, 2012, p. 38, translated by the authors). Hence, it can be affirmed that strategies serve as crucial tools in reading comprehension. They empower students to reflect on the text's content beforehand, delineate potential paths, identify possible challenges, and attempt to resolve them, ultimately leading to the acquisition of new knowledge by the end of the reading process.

According to Pereira and Scliar-Cabral (2012) and Kato (1999), reading strategies can be categorized into two groups: cognitive and metacognitive. Cognitive strategies are those that do not rely on the reader's attentional control and are, therefore, unconscious (Kleiman, 2008). Due to their automatic nature, they are considered to operate at a lower processing level, although

they involve sophisticated skills (Kleiman, 2013). Allende and Condemarín (2005) also refer to these strategies as natural strategies, positing that they are inherent to more experienced readers. As an example of a cognitive strategy, Kleiman (2013) mentions vocabulary recognition, which is an automatic process which underlies text comprehension.

Regarding the second category, metacognitive strategies diverge from cognitive strategies, as they necessitate attentional control and, by their nature, are non-automated and conscious (Kato, 1999; Pereira & Scliar-Cabral, 2012). Kleiman (2013) defines these strategies as operations carried out with a specific objective in mind, requiring conscious control where individuals can articulate and explain their actions (p. 74). The reader, therefore, must actively monitor the progress of their reading. In the event of a comprehension issue, the reader can employ a metacognitive strategy to address the problem and proceed with the reading exercise.

Metacognitive strategies, as implied by their name, require metacognition. These strategies are tools employed by readers who are actively attentive to the text, engaging in a process of self-assessment and self-correction. This enables them to discern how to act and select the strategy most suitable for overcoming potential semantic obstacles (Souza & Garcia, 2012).

Souza and Garcia (2012), along with Kleiman (2013), enumerate a range of metacognitive strategies applicable to an active reader involved in text comprehension. These include defining reading objectives, allocating attention to the most relevant sections, and identifying the text's main ideas. In addition to that, Mokhtari and Reichard (2002) created a list of metacognitive reading strategies, which may be consulted on the appendixes. A list containing a few examples may be observed in the table below:

**Table 3**

*List of metacognitive reading strategies*

<i>Type</i>	<i>Strategy</i>
SUP	Taking notes while reading to help in the understanding of the text.
GLOB	Previewing the text to see what it is about before reading it.
PROB	Reading it slowly but carefully to be sure that there is comprehension.
GLOB	Skimming the text first by noting characteristics like length and organization.
PROB	Stopping from time to time and thinking about what is being read.
SUP	Summarizing the text to reflect on important information.
GLOB	Checking whether the guesses about the text are right or wrong.

*SUP* = Support reading strategies; *GLOB* = Global reading strategies; *PROB* = Problem solving strategies.  
Source: adapted from Mokhtari and Reichard (2002).

In this sense, implementing reading strategies in the classroom can occur in both L1 and L2, as materials for analysis, study, and comprehension are available in both languages. In the native language (L1), these tools have been investigated by Ribeiro and Mota (2020), who conducted a study testing the application of metacognitive strategies with a group of university students. The authors aimed to explore the presence of metacognition during the students' reading processes and understand the nature of the strategies employed to comprehend written content in L1. To achieve this, the researchers employed questionnaires featuring inquiries about habits and strategy usage. Additionally, a self-assessment question required participants to reflect on positive and negative aspects of their own reading behavior. The researchers hypothesized that, given the maturity and higher education context of the group, they would likely employ sophisticated strategies for textual comprehension.

However, the outcomes did not entirely align with the initial predictions. The results of the qualitative analysis conducted by Ribeiro and Mota (2020) suggest that, despite the majority

of participants asserting the use of reading strategies during their studies, these strategies generally involve low levels of processing. In cases where more complex activities are involved, individuals tend to abandon the material, often due to a lack of motivation. In essence, individuals avoided employing more intricate activities during reading, such as those demanding greater cognitive control, including generating hypotheses, questioning the text, or producing a post-reading summary. Ultimately, the researchers underscore the significance of instructing reading strategies "to provide individuals with the opportunity to confront their own limitations in the realm of reading and to facilitate discussions on potential approaches to mitigate problems" (Ribeiro & Mota, 2020, p. 718). This is due to the idea that reading strategies provide more autonomy to face text challenges, which can raise students' motivation to read (DeSouza, 2008; Rosso & Arêas da Luz Fontes, 2023).

The significance attributed to reading strategies for addressing challenges in textual comprehension in L1, as highlighted in the aforementioned research, is equally applicable to reading in L2. The texts in a second language can pose obstacles to comprehension, potentially more so. This complexity arises from the fact that, as mentioned earlier in this work, reading in L2 involves dealing with two code activations simultaneously (Miwa et al., 2014; Casaponsa, Carreiras, & Duñabeitia, 2015). Additionally, most of the time, there is a gap between languages. In other words, the dominance of L1 prevails, and L2 is less frequently utilized, resulting in decreased reader fluency (Grosjean, 2012; Godoy & Dias, 2014). From this perspective, reading in L2 requires specific knowledge of vocabulary and syntax (Lapkoski, 2012), which may not be fully consolidated in the reader's mind, leading to gaps and uncertainties that may hinder an effective comprehension of the text.



It may be suggested that the utilization of reading strategies in L2 assumes a heightened significance, given that bilingual readers, - especially incipient bilingual readers -, do not possess an equivalent level of fluency in both languages. In other words, their proficiency levels differ between the two codes, and they may encounter increased challenges when reading in L2. Metacognitive comprehension tools, as suggested by Pietraróia (1997), Silva (2001), Paiva (2010), Kleiman (2011), Lapkoski (2012), Santos (2013), Ke and Chan (2017), Kovács (2018), and Acosta (2019), can be instrumental in aiding the L2 reader to navigate and overcome these difficulties.

Studies in this topic have aimed to examine the application of reading strategies in the acquisition of reading skills in L2. One such study conducted by Busby (2018) involved testing a group of undergraduate students to assess their reading competence and the utilization of reading strategies in an additional language, in comparison to reading in their native one. Similar to the investigation by Ribeiro and Mota (2020), Norwegian students (studying English) responded to a questionnaire regarding the use of reading techniques, but now in both L1 and L2. They also engaged in self-assessment, evaluating their performance as strategic readers in both language codes. In contrast to the prior research, the outcomes of Busby's (2018) study were more optimistic. The results indicate that university students employ a variety of strategies in both languages, maintaining a certain balance in their use across both codes. In essence, according to Busby (2018), students express the importance of applying reading strategies in both L1 and L2, and they do so consistently.

However, those participants assert that two strategies are employed in L2 but not in L1. These include looking up words in the dictionary when comprehension is severely compromised and adopting a slower reading pace. As mentioned earlier, the primary challenge typically lies in

reading in L2, demanding increased attention and strategic reading. Busby (2018) conducted a regression analysis to explore whether there was a correlation between the self-assessment made by individuals (low or high) and the number and type of reading strategies embraced by the academics. The results from this analysis demonstrate a significant association between the self-assigned grades and the number of strategies employed in L2 reading. This suggests that individuals who rated themselves higher were also those who utilized a greater number of reading strategies, including those of a more cognitively demanding nature (Busby, 2018).

Another noteworthy study was conducted by Endley (2016), which underscores the significance of proficiency in L2 in reading and how this variable contributes to the execution of strategies. The study involved a group of Arab students who were English learners. Using verbal protocols and semi-structured interviews, the researcher collected data on the participants' English reading and their verbalized thought processes. The primary objectives were to identify the difficulties the participants encountered in reading in L2, analyze the strategies they employed to address comprehension challenges, and examine the relationship between their responses and their proficiency levels. In essence, the study aimed to determine to what extent proficiency in L2 could serve as a predictor of success or failure in reading and the adoption of reading strategies. The findings unveiled that the participants faced significant obstacles in L2 reading comprehension, including difficulty in word recognition, challenges in sentence interpretation, and struggles with the analysis and understanding of more complex grammatical structures present in the text (Endley, 2016).

Additionally, concerning reading strategies to attenuate these obstacles, the author notes that, overall, the participants made limited use of strategies, and their usage did not exhibit significant variation. They predominantly remained at a basic level of lexical and semantic

processing of the text, which, according to the author, contributed to the insufficient yield of research data. Finally, with respect to the students' proficiency, Endley (2016) found that participants with the lowest overall performance in the L2 displayed characteristics that adversely affected reading and the application of strategies. This supports the idea that readers who exhibit higher proficiency in the additional language also demonstrate greater skill and strategic competence in reading (Endley, 2016).

Therefore, through the discussions and studies presented on reading in L2 and strategies for textual comprehension, the significance of acquiring this set of metacognitive tools becomes evident, along with the importance of knowing how to apply them. This is because, even if the reader lacks a high level of proficiency in L2 or an extensive knowledge of vocabulary, as well as an understanding of the specificities of the second language, they can employ strategies to mitigate or overcome difficulties in comprehending the code (Kato, 1999; Silva, 2001; Lapkoski, 2012; Kovács, 2018; Acosta, 2019).

Until now, research has predominantly explored reading performance and the utilization of reading strategies among young adults, with a limited focus on children and adolescents (as illustrated by Table 2). The findings with young adults have revealed their relative dependence on language proficiency, background knowledge, and motivation. These individuals tend to deploy strategies in alignment with their fluency levels in the language, employing them to bridge meaning gaps and rectify interpretation errors (Endley, 2016; Busby, 2018). When considering the use of reading strategies in L2 by children and adolescents, the scenario becomes somewhat more demanding. In theory, they have accumulated less experience with the second language (Liu, 2008) and the associated strategies, a topic that will be further examined in subsequent discussions.

### ***2.3.1 Developing Strategies in L2 with Younger Readers***

As previously discussed, reading in L2 by adolescents involves two complementary perspectives. The initial challenge arises from a smaller amount of memories stored in L2 compared to the dominant L1, typically resulting in difficulties (Liu, 2008). However, adolescents demonstrate a certain ease in learning the nuances of the additional language and reading, attributable to the sensitive period and heightened neural plasticity inherent to this phase (Consenza & Guerra, 2011; Dehaene, 2012; Lent, 2019; Dehaene, 2020). Initially, reading in L2 may seem somewhat inaccessible due to a lack of familiarity with the code and its underlying vocabulary. However, these challenges tend to diminish over time. The process is facilitated when the classroom environment includes exposure to various textual genres (Paiva, 2010; Pereira & Scliar-Cabral, 2012; Brevik, 2019), coupled with metacognitive practices that encourage students to reflect on their reading and take control of their learning (Kato, 1999; Kleiman, 2008; Gamboa-González, 2017; Woelfer, Tomitch, & Procailo, 2019).

Given the complexity of reading in L2 for adolescents, as outlined by the factors mentioned earlier, it can be inferred that, similar to more mature readers, young audiences also need to employ reading strategies to address potential gaps in textual understanding (Serra & Oller, 2003; Kleiman, 2008; Santos, 2013; Ferreira & Santos, 2019; Acosta, 2019). Notably, these strategies are transferable from L1 to L2 (Koda, 1990; Koda, 2005; Kim & Piper, 2019). Hence, reading strategies, whether in the first or second language, emerge as an effective means to resolve comprehension challenges for readers with less experience (Silva, 2001; Ferreira, 2009; Paiva, 2010; Lapkoski, 2012; Friesen & Haigh, 2018).

The instruction of reading strategies in L2 with teenagers holds significant importance within the classroom, aiming to cultivate autonomous and proficient readers in the additional

language from the early stages throughout their school journey. Cotterall and Reinders (2007, as cited in Godoy & Dias, 2014) assert that, beyond fostering students' responsibility for their own knowledge, "the teaching of strategies contributes to efficient learning, greater student motivation, and an increase in the time they spend using the language" (p. 175). Consequently, it becomes important to consider strategies not only as tools to be encouraged in the classroom but also as elements systematically taught to students (Silva, 2001; Souza & Garcia, 2012; Pereira & Scliar-Cabral, 2012; Lapkoski, 2012; Grabe, 2014; Godoy & Dias, 2014; Friesen & Haigh, 2018; Acosta, 2019; Yau, 2022).

According to Jolibert (2003), the instruction of strategies should commence from the initiation of text comprehension activities, even in childhood. She emphasizes the importance of gradually introducing these techniques, beginning in kindergarten, refining them in Elementary School, and extending their application to High School — spanning the entire course of basic education (see also Pereira & Scliar-Cabral, 2012; and Vollinger, Supanc, & Brunstein, 2018). Jolibert (2003) also underscores, as mentioned earlier, the significance of teaching students to pose questions about the text, or in other words, to assume a critical and active role in reading materials. In alignment with other cited authors in this research, Jolibert (2003) asserts that systematic strategy instruction is essential, "in such a way that, through automation, the individual can independently manage their reading task" (Jolibert, 2003, p. 79). Thus, learning how to use those tools provide students with reading skills that will assist them not only during childhood, but throughout the educational process.

Beyond this initial phase, there is the second stage of Brazilian Elementary School, which comprises 6th to 9th grades. At this point, reading in L2 tends to become more established, either through formal school instruction (British Council, 2015) or exposure to

various media and technologies like videogames. Here, reading strategies persist as essential components for linguistic advancement in the additional language. In this stage, as highlighted by Lapkoski (2012), metacognitive strategies play a crucial role in aiding students, particularly in content analysis, self-monitoring, and determining the most effective approaches to achieve their objectives. With the guidance of teachers, they can make higher-quality predictions as they already possess a more extensive reservoir of prior knowledge (Smith, 2003; Kleiman, 2013; Flores, 2015).

Kato (1999) further contributes, observing that, during this stage of reading in L2, it becomes feasible for students to "create meanings from contextual clues, which makes the reader less dependent on linear information and more integrative of co-occurring information" (p. 29). In contrast to children in the initial stage of Elementary School (1st to 5th grade), who are in the process of literacy and initial consolidation of reading and, therefore, adopt a more ascending approach than descending (Souza & Garcia, 2012), readers in the second stage, theoretically, can already be considered as Constructor-Integrators (Kintsch, 1998). Thus, they engage in the analysis of lexical and world representations and in the semantic construction of the text in L2.

These observations find support in the experiment conducted by Castillo and Bonilla (2014), who assessed students in the second phase of elementary school in a Colombian setting. These students had Spanish as their first language and English as their second language. For their study, three specific reading strategies were selected for instructional purposes: skimming (preliminary analysis of the text, examining salient aspects of the material, further detailed below), scanning (reading to locate specific information), and making predictions (an exercise in making assumptions about the text and subsequently verifying them). Following the instruction

of this set of strategies, the researchers noted not only an enhancement in the reading performance of the young participants but also an increase in their motivation toward the study materials. The researchers concluded that when students master strategies such as those employed in their instruction, they become less reliant on the teacher, as they can independently identify aspects of the text and generate hypotheses about it (Castillo & Bonilla, 2014).

In high school, strategies for textual comprehension in L2 tend to become more sophisticated, mirroring the maturation of an individual's reading journey. This maturity is attributed to prior experiences with reading and a greater assimilation of concepts stored in memory, contributing to an improved understanding of the text (Smith, 2003; Alliende & Condemarín, 2005; Souza & Garcia, 2012). In addition to the previously discussed techniques, Serra and Oller (2003) posit that adolescents at this stage are theoretically capable of employing more intricate comprehension tools that demand heightened attention and engagement from the reader. Examples of such strategies include evaluating the internal consistency of the text by comparing it with the reader's knowledge, formulating various hypotheses, and testing them as the reading progresses, and engaging in the exercise of recapitulating the recently read material. The authors still emphasize that these strategies can occur simultaneously (Serra & Oller, 2003).

Even at the high school stage, students can seek guidance from teachers, as all reading process, especially in a second language, may raise uncertainties (Santos, 2013). According to the author, the teacher's role extends to assisting students in systematizing strategies, making informed decisions about them, and fostering student engagement in reading. Additionally, it remains the teacher's responsibility to select the text for classroom work and define the objectives associated with the text — an essential aspect in the development of the activity (Santos, 2013).

Also, at this stage of education, students may enhance their ability to distinguish central from secondary information in an L2 text. Santos (2013) proposes the strategy of developing mental maps — visual structures for hierarchically recording ideas derived from a text. According to the author, high school students, amidst a constant influx of information, can benefit from the use of mind maps to focus on pertinent material in their study materials while filtering out distracting words and terms in the additional language. Silva (2001) also contributes to this discussion, emphasizing the importance of reading strategies in L2 during high school. The researcher underscores the necessity for adolescents to maintain focused attention on their reading, plan their reading activities to organize ideas, anticipate potential challenges, and proactively contemplate alternatives to resolve them (Silva, 2001).

When it comes to studies on this topic, there is the example of Chen and Chen (2015)'s, who conducted research focusing on adolescent high school students. They aimed to observe the predominant strategies employed in L2 reading exercises in schools within a city in Taiwan. The researchers administered questionnaires to students, probing their reading practices and approaches. Although the participants asserted that they were strategic readers in L2, they faced challenges in articulating the specific strategies they employed. In an effort to elucidate their responses, participants self-reported various practices, such as reading more slowly and attentively to enhance comprehension, revisiting passages when necessary, previewing the text before reading, and underlining what they deemed significant (Chen & Chen, 2015).

The authors categorized the participants' testimonies into three distinct groups: global strategies (e.g., previewing the material before reading), solution strategies (e.g., revisiting sections where comprehension was lacking), and support strategies (e.g., underlining). These categories are in line with the ones from Mokhtari and Reichard (2002), which will be more



detailed later in this work. Consequently, they concluded that while students possessed some awareness of these strategies, there was a deficiency in formal instruction, hindering their ability to effectively choose the most suitable strategy to improve L2 reading (Chen & Chen, 2015).

In another study, Fitriasia, Tan, and Yusuf (2015) conducted research to assess reading competence and the influence of reading strategies on students' performance during L2 learning. Similar to our study, they utilized the MARSIS (Mokhtari & Reichard, 2002) to evaluate participants' proficiency in reading strategies. Fitriasia et al. (2015) conducted a reading comprehension task involving texts and questions with 272 adolescents from four different schools. Participants also underwent the MARSIS test, and the scores from this assessment were correlated with the accuracy observed in the comprehension test answers.

The analysis revealed a significant and positive correlation between the scores from both assessments, suggesting that students who reported employing strategic reading approaches exhibited greater accuracy in answering comprehension questions. The authors noted that participants predominantly employed problem-solving strategies, such as rereading the text for better understanding and reading slowly and carefully when the material became more complex, to address comprehension issues. The authors conclude recommending that reading strategies may be broadly taught in L2 classes in order to students can reach higher levels of text comprehension (Fitriasia, Tan, & Yusuf, 2015).

A more recent study with High School students was conducted by Yau (2022). Her objective was to verify whether there was a relationship between L2 reading motivation, reading strategy use and L2 literacy scores. Students were from Taiwan, and they were bilingual (Chinese-English). They composed a group of 396 participants, who filled in different questionnaires. The surveys measured their knowledge in English word structures and passages,

their motivation in L2 reading learning, and their experience with reading strategies. Results showed positive and significant relationships among all variables. The author suggests that reading motivation strongly influences strategy use (which was also observed in Rosso & Arêas da Luz Fontes, 2023). Additionally, L2 literacy showed to be directly associated to reading motivation. In sum, the author mentions that there is a need for adopting activities in the classroom that encompasses cognition, metacognition, and motivation (Yau, 2022).

Therefore, teaching strategies to enhance L2 reading is a relevant step, providing adolescents with specific skills to navigate textual content. Strategic readers, in turn, not only become better equipped for the exercise of textual comprehension but also tend to exhibit increased motivation, fostering a deeper understanding of the material (DeSouza, 2008; Castillo & Bonilla, 2014). As discussed earlier, additional benefits encompass autonomy and self-directed learning (Kato, 1999; Serra & Oller, 2003; Souza & Garcia, 2012; Pereira & Scliar-Cabral, 2012). These attributes empower learners not only to comprehend material effectively but also to form opinions, conducting analyses both before and after reading.

Critical to the initial construction of textual meanings is the pre-reading analysis of the content, which enables the activation of the individual's knowledge on the word properties and sentence structures, as well as of the stored memories on a specific topic (Smith, 2003; Allende & Condemarin, 2005). These cognitive schemes, as outlined by Rumelhart (1984), can and should be engaged in advance during the initial approach to the text. Strategies facilitating this process, such as skimming, mentioned by Castillo and Bonilla (2014), become crucial tools. Skimming, a pre-reading strategy employed by fluent readers, can be taught to less experienced readers to enhance their visual acuity, and refine their reading skills, as discussed below.

### ***2.3.2 Skimming: Superficial Analysis and Memory Activation***

Among the three pre-reading strategies identified by Castillo and Bonilla (2014) in their work with young students, skimming stands out as one that provides substantial cues for the reader to formulate initial ideas about the forthcoming content. Santos (2013) explains that this strategy prompts the student to "direct their attention initially to main words, titles, images, and other highlighted information (e.g., in **bold** or underlined). Subsequently, they should allow their eyes to move swiftly over the text without fixating on a specific point" (Santos, 2013, pp. 59-60, emphasis added). In essence, prior to engaging in the actual reading process, the reader endeavors to extract indications of the upcoming content from the visually prominent information in a rapid investigative sweep (Rayner et al., 2016).

Skimming serves as a pre-reading metacognitive strategy as it is done before the effective beginning of the comprehension exercise. This strategy is metacognitive in nature, requiring reader control and attention. It demands that the student is aware of their actions, allowing them to assess whether understanding is occurring or not (Kato, 1999; Kleiman, 2008; Fauzi, 2018).

For less experienced readers, such as children, adolescents, or adults with limited reading experience, skimming is introduced as a metacognitive strategy to be consciously practiced. In contrast, more proficient or mature readers tend to use skimming automatically. They instinctively perform a preliminary analysis of the content, seeking visual cues, such as highlighted words, cognates (in the case of bilinguals), and figures, to activate their knowledge on the topic and on the text itself (Lapkoski, 2012; Pereira & Scliar-Cabral, 2012). This way, the ultimate goal of teaching reading strategies, including skimming, is to provide students with opportunities to practice these techniques in probing, approaching, and exploring texts and their constituents. Through practice, students can automate these strategies, leading to greater

autonomy in reading comprehension over the time (Serra & Oller, 2003; Paiva, 2010; Kleiman, 2011; Fauzi, 2018).

Additionally, skimming seems to be a valuable strategy for adolescents as it serves as an initial reading approach that requires precision. It facilitates a global understanding of the text in L2 and enables the reader to analyze whether the text is relevant for their study. According to Lapkoski (2012), this technique is particularly crucial in second language reading for young readers as it helps them focus on the most important aspects of the material, analyzing words, sentences, images, and formulating their own hypotheses.

Pereira and Scliar-Cabral (2012) further emphasize the applicability of skimming in various textual genres within the classroom. They suggest using short stories, fables, legends, and tales, among others, as suitable options for implementing skimming. According to these authors, such texts provide insights into the structure of the genre, aiding readers in making inferences about the content. This approach helps students develop their comprehension skills in a targeted and effective manner (Pereira & Scliar-Cabral, 2012; Fauzi, 2018).

Furthermore, for beginner or intermediate readers in an L2, especially children and adolescents who may not have mastered the language completely, skimming becomes a valuable strategy. Terzi (2006) highlights that young readers can rely on graphic aspects, which provide an opportunity to formulate hypotheses about the text, which can later be confirmed or refuted.

In practical terms, when faced with a text that exceeds their linguistic proficiency, readers can use skimming to extract key information from the material, such as figures, titles, and highlighted words (Rayner et al. 2016). This allows them to make inferences and fill in gaps in understanding by leveraging visual cues and contextual clues. Skimming, in this context,

becomes an important skill for young readers in the L2, aiding them in navigating texts beyond their current language proficiency (Lapkoski, 2012; Santos, 2013).

Most studies on skimming and L2 reading, as previously stated, are shared with another metacognitive reading strategy, the scanning. Both tools are useful for rapid reading, but they are used for distinct purposes during text comprehension (Fauzi, 2018). The table below shows some of the main differences between the two strategies, that may cause confusion among the less experienced strategic readers:

**Table 4**

*Differences between skimming and scanning*

<i>Skimming</i>	<i>Scanning</i>
Getting the main idea (gist) from the text	Getting a specific information from the text
Analyzing basic elements: highlighted words, titles, subtitles, and figures	Moving the eyes rapidly throughout the text
Demands inferencing and raising hypothesis about the text	Demands attention to look for details in the text

Source: elaborated by the authors, based on Fauzi (2018).

Although more research has been developed considering the set of these two strategies, a few works addressing the use of skimming can be cited. For instance, the experiment conducted by Rusmiati and Ghafura (2017) provides insights into the effectiveness of teaching skimming as a reading strategy to enhance students' reading competence in the L2. By training English students to previously analyze main words, titles, and the text structure, the researchers aimed to assess whether there would be a noticeable improvement in the participants' reading performance. The experimental design involved a pretest to gauge the students' knowledge before the instruction and a posttest to evaluate changes in reading performance. The assessment

included multiple-choice and essay questions on text comprehension. The results revealed a significant increase in the students' reading performance during the post-test, indicating that skimming positively impacted their reading abilities in the L2. Taken together, the findings from this study support the notion that teaching skimming as a reading strategy can be an effective approach to enhance students' reading skills in an additional language. Finally, the researchers suggest that implementing skimming as part of L2 reading classes can contribute to improved reading competence (Rusmiati & Ghafura, 2017).

The study conducted by Agudelo, Ávila, and López in 2007, focusing on providing instruction on the reading strategy of skimming to a group of sixth-grade Colombian students, aimed to make the students more comfortable with English texts. The primary goal was to facilitate their reading through the use of skimming strategy. However, the study has certain limitations, and the details regarding the control of text genres, size, and other factors were not explicitly provided. Additionally, the lack of specific results raises questions about its applicability to the current context.

Given the scarcity of studies focusing on the youth population, particularly in the context of skimming as a reading strategy in L2, there appears to be a need for more recent and comprehensive research. Current studies could benefit from addressing the limitations observed in earlier works, including rigorous control of variables such as text genres, size, and other relevant factors. Thus, researchers in the field may find it valuable to conduct updated investigations with a more thorough and controlled experimental design to gain deeper insights into the effectiveness of skimming as a reading strategy for young individuals in the context of learning an additional language. This is what this study tried to accomplish.

Another study, by Muddin and Rahayamtel (2018), focused on the implementation of skimming in a group of 38 high school students in Indonesia. Yet, it appears to have several limitations and shortcomings in terms of methodological transparency and reporting. The absence of statistical data, a detailed description of the experimental design, and insufficient information about the reading materials used are significant drawbacks that reduce the reliability and replicability of the study.

Among the results, it was found a general effect of skimming instruction, but the lack of clarity regarding the implementation of the study, the absence of statistical details, and writing flaws, along with theoretical inconsistencies, raise concerns about the validity of the findings. A more thorough and transparent presentation of research methodology, results, and data analysis is crucial for the scientific community to assess the study's reliability and relevance. In sum, it is essential to consider works that provide comprehensive details about their methodologies, results, and data analysis, ensuring the rigor and transparency necessary for meaningful interpretation and application.

In the course of this discussion, the significance of a comprehensive preliminary analysis of the text and its structure has been acknowledged as meaningful for gaining an initial understanding of the reading. The mentioned authors concur that actively searching for clues, whether visual or textual, serves to prompt the reader to capture meaning (Alliende & Condemarín, 2005; Paiva, 2010; Pereira & Seliar-Cabral, 2012; Lapkoski, 2012; Santos, 2013). In the context of L2 reading, skimming is also deemed valuable as it facilitates the recall of previous experiences with the second language and its lexicon. In essence, this strategy operates on the activation of the reader's previous knowledge of words, their properties, and general language structures, and allows for the students to integrate them with their world knowledge,

thereby contributing to the construction of the text's meaning (Souza & Garcia, 2012; Santos, 2013; Rayner et al., 2016).

Consequently, fostering enhanced reading skills, enabling students to improve their capacities, and encouraging strategic engagement with L2 texts, emerge as crucial objectives in educational settings and language classrooms (Kato, 1999). Lastly, it is noteworthy that the incorporation of strategy learning has yet to permeate reading instruction not only in first language, but especially in second language contexts. This is in part due to the limited work with strategies in the L2 classrooms, as well as due to the narrow number of research, particularly in the exploration of specific techniques like skimming. The scarcity of studies on learning this pre-reading strategy in L2 with a younger public, as discussed earlier, underscores the significance of the current study's implementation.



### Chapter 3 - THE PRESENT STUDY

The discussion thus far has encompassed topics such as reading in a general context, reading in the L2, bilingual lexical access, reading instruction, L2 reading with adolescents, working with text genres and cognates, reading strategies - with a focus on adolescents, and finally, skimming. Regarding reading in general, the complexity of the process has been explored, as it requires memory activations and processing at both lower and higher levels to comprehend written content (Souza & Garcia, 2012; Izquierdo, 2018). Reading in L2, on the other hand, poses even greater demands, as it relies on the reader's knowledge of the additional language and the articulation between L1 and L2, enabling access to corresponding lexicons amidst the numerous representations that emerge in the mind (Kato, 1999; Dijkstra & Van Heuven, 2002; Vasseur, 2013; Van Assche, Duyck, & Hartsuiker, 2016; Ke & Chan, 2017).

The teaching and learning of reading, whether in L1 or L2, requires specific actions, as individuals with varying levels of knowledge must be accommodated. In this sense, metacognitive strategies play a crucial role in L2 reading, assisting students in gaining greater control over their learning by prompting them to reflect on their performance and adopt measures to address comprehension issues (Paiva, 2010; Kleiman, 2011; Lapkoski, 2012; Friesen & Haigh, 2018; Acosta, 2019). Among these techniques, pre-analysis of materials is notable, focusing on macro-textual aspects such as images, titles, subtitles, emphasized words, hypothesis generation and verification, inference production, goal determination, comprehension checking, and recording of main ideas (Serra & Oller, 2003; Koch & Elias, 2012; Pereira & Scliar-Cabral, 2012; Godoy & Dias, 2014; Wang et al., 2023).

Strategies are applicable not only to mature and experienced readers but particularly and most importantly to readers with limited reading experience, who consequently rely more on support tools. Adolescents, in general, fall into this category, as they have had less time chronologically to engage with L2 and its specificities (Liu, 2008). Metacognitive strategies are therefore fundamental for this group, as they provide readers with greater autonomy and confidence in the second language reading when learned and implemented (Dias, 1996; Pietraróia, 1997; Silva, 2001; Paiva, 2010; Santos, 2013; Yau, 2022; Rosso & Arêas da Luz Fontes, 2023). These techniques, when employed in the classroom, need to be integrated with meaningful activities for students to enhance their learning effectively. In this regard, it is important to provide space for different text genres in L2 so that readers encounter and familiarize themselves with various text formats. These distinct formats also promote different levels of processing in the readers' mind, since genres have inherent characteristics, such as vocabulary, syntax, and also purposes (Denton et al., 2015). Thereby, through L2 genres reading, students may develop their textual awareness and competence (Paiva, 2010; Pereira & Scliar-Cabral, 2012; Yoshida, 2012; Brevik, 2019). In this study, we tested participants' textual competence and awareness through two different genres: i) fable, a format of text more present in the classrooms, which has simpler syntax structures (Saadatnia, Ketabi, & Tavakoli, 2017); and ii) news article, a genre that is commonly found nowadays, especially in social medias (Aboud et al., 2019).

Similarly, it is relevant for these texts to include cognates, which are words that share spelling (partial or total), phonology, and semantics between languages, facilitating their coactivation (Libben & Titone, 2009; Kleiman, 2011; Finger, 2015; Cop et al., 2017; Finger, Brentano, & Arêas da Luz Fontes, 2018; Santesteban & Schwieter, 2020; Marian et al., 2022).

These occurrences provide greater support and agility to L2 reading by students. In this study, we tested cognate processing through a higher and a lower quantity of these words, which are embedded in the texts to be read by the participants.

Besides, cognate words can be identified in pre-reading approaches, such as pre-analysis of material, also known as skimming. This metacognitive strategy can be a valuable ally for children and adolescents in L2 textual comprehension. Through examination of salient components of the material, readers can infer its content, make predictions, and activate their prior knowledge on the language and topic of the text (Alliende & Condemarín, 2005; Pereira & Scliar-Cabral, 2012; Lapkoski, 2012; Santos, 2013; Rayner et al., 2016; Busby, 2018).

It is important, therefore, that L2 reading instruction to be dynamic and engaging for students (Paiva, 2010). Furthermore, among other proposed activities, metacognitive strategies - specifically, skimming - should be incorporated (Rusmiati & Ghafura, 2017). Such tools are relevant in the classroom context as they equip students with mechanisms to assist them when facing difficulties in reading specific genres as requested by the teacher. Some cited studies, such as Gamboa-González's (2017), which demonstrated the positive impact of metacognitive instruction by allowing students to perceive themselves as agents of their own practice.

For this reason, the present study was conducted, aiming to understanding how a pre-reading metacognitive strategy – skimming – would influence the reading performance of eighth and ninth graders from two public schools located in the South of Brazil. We hypothesized that participants would present better scores in the posttest, or, in other words, after the skimming instruction. This is due to the idea that reading strategies facilitate reading comprehension (Santos, 2013; Rayner et al., 2016). Another prediction was that fables would be the text genre that students would present higher scores, compared to the news, since they possess a less

complex syntax structure (Saadatnia, Ketabi, & Tavakoli, 2017). We also predicted that participants would present a better performance in the texts with more cognate words embedded in their composition, since cognate words accelerate word recognition (Marian et al., 2022).

Thus, this study tried to promote a more refined understanding of the learning system for L2 reading in public elementary schools, suggesting differentiated approaches, or reinforcing existing strategic practices. Consequently, the aim was to observe a positive change in the reading behavior of students towards study materials in the second language, enabling them to identify themselves as more active, motivated, engaged, and strategic individuals.

To do so, a technique known as *cloze* test (Taylor, 1954; Tomitch, 2008) was employed with 8<sup>th</sup> and 9<sup>th</sup> graders from two public schools in Southern Brazil. Furthermore, in order to better fit this study goals, an adapted version of the test for younger readers was implemented. This alternative version of text gapping was elaborated by Joly and colleagues (2014), with the same objective of verifying participants' reading comprehension.

The blank-spaced texts involved two different genres: fable and news article, which have distinct features and thus different ways to be processed in the reader's mind (Denton et al., 2015). Cognate words were embedded throughout those texts, with a higher and lower number in order to check whether there is a cognate effect (Cop et al., 2017; Finger, Brentano, & Arêas da Luz Fontes, 2018; Santesteban & Schwieter, 2020; Marian et al., 2022), i.e., whether students present a better performance in the texts that contain a higher number of these words.

Participants were divided into experimental and control group, and only the experimental group went through instruction. However, all participants read fables and news containing more and less cognates. They were 112 adolescents who had Portuguese as their L1 and English as their L2. These students come from low-income communities, and, according to the Language

History Questionnaire (Scholl & Finger, 2013), they possess relatively low proficiency in reading, speaking, listening, and writing in English.

Ultimately, the experiment had five stages: i) presentations and delivery of the terms to be taken the parents; ii) questionnaires filling and assent forms signing; iii) pretest; iv) training on the skimming strategy; and v) posttest. More details of who are the participants, what types of materials were used, and how the study was conducted may be encountered in the next chapter.

## Chapter 4 – METHOD

The theoretical framework contextualized the study within existing literature and underscored its relevance. The chapter presents the procedural phase of the research. This encompasses the actions undertaken to operationalize the study. This section presents the research design, specifying its characteristics, the identification and number of participants, materials employed, and the steps taken to conduct the study. It also outlines the controls implemented to ensure methodological rigor.

### 4.1 Study Design

This study adopts an experimental research design employing a quantitative approach. The independent variables (IVs) include the instruction of the metacognitive strategy of pre-reading skimming, textual genres (news and fable), and the number of cognate words (greater number and reduced number) present in the selected texts. The dependent variable (DV) is the performance of students in the reading task, quantified by the number of correct answers in the *cloze* test (further details provided below). In experimental research, the objective is to observe the impact of the independent variable on the dependent variable (Christensen, Johnson, & Turner, 2015). Thus, in this study, the focus is on understanding how the independent variables (instruction, textual genre, and cognates) influence the dependent variable (number of correct answers).

Similarly, this research employs a mixed design. *Instruction* was an IV between subjects, that is, one group received the instruction, while the other served as a control without the instructional intervention. The variables of textual genre and number of cognates were intra-

subjects factors. Consequently, all participants engaged with both fables and news texts, each containing varying numbers of Portuguese-English cognate words.

Furthermore, it can be asserted that this research exhibited good ecological validity as it took place within the primary locus of knowledge acquisition — the school (Christensen, Johnson, & Turner, 2015). The school serves as the natural setting for instructional activities, encompassing the L2 reading teaching-learning processes explained in the theoretical framework. Thus, the present study was conducted in the participants' classrooms. Consequently, a heightened effort was required to control for external variables, such as loud noises and interruptions. This is because they can influence the progression of the research and potentially lead to changes in its outcomes.

Concerning the participants, who were distributed across eight distinct classrooms, they underwent random assignment to either the experimental or control groups. As outlined by Christensen, Johnson, and Turner (2015), group randomization is a method for allocating participants randomly to specific conditions when individual assignment is impractical. This situation may arise in contexts such as families, neighborhoods, and classrooms, as was the case in this study.

Therefore, in the execution of the research, on a predetermined day coordinated by the researcher in consultation with the school and teachers, a pretest (*cloze* task – detailed in the next sections) was administered to both groups. On a subsequent day, in collaboration with school administration and teachers, the experimental group underwent instruction on the skimming strategy. This instructional session, delivered through a slideshow and printed materials for reading activities (as described in the materials section), aimed to teach the skimming strategy's principles and its application to L2 texts. As previously noted, the control group did not partake

in this phase and continued with their regular activities. Finally, during the posttest, both groups completed the *cloze* task once again. To gain a more comprehensive understanding of this process, it is essential to delve into a detailed description of the research participants.

## 4.2 Participants

Initially, the researcher contacted the English teachers of the students to assess the potential integration of the research into their classes. Subsequently, the students were invited to participate in the research through individual discussions within the classes (see dialogue script in the appendices). During these conversations, participants were briefed on the experiment's step-by-step process, its objectives, and the potential risks and benefits associated with their involvement. They were explicitly informed of their voluntary participation and the option to withdraw from the study at any point, for whatever reason. Furthermore, participants were provided with an Informed Consent Form (ICF) to take home for their parents to review, allowing parents to decide whether to authorize the use of their child's data in the study. Following the majority of parents providing signed ICFs, and prior to their active involvement in the research, students with parental authorization affirmed their agreement through an Assent Form, thereby confirming their willingness to participate in the study. It is important to mention that the students who did not have allowance from the parents performed the experiment as well. However, their data were excluded at the end of the research implementation. It was also the case for the participants who chose no as an answer in the assent form: they executed the tests, but their data were not analyzed. Information about the number of participants that had their data excluded from the experiment is provided at the end of this chapter.

The study participants comprised eighth- and ninth-year elementary school students drawn from two public schools — one municipal and one state-managed — in a city located in



the southern region of Santa Catarina, Brazil. In a first moment, the goal was to involve students from 6<sup>th</sup> and 7<sup>th</sup> grades (see Appendices I and II), since the researcher did not want to include her own 9<sup>th</sup> grade students as a group. However, during a conversation with one of the English teachers, she said that these two levels, i.e., 6<sup>th</sup> and 7<sup>th</sup> grades, were not the most adequate options to conduct the research. According to the teacher, these groups had their learning deeply jeopardized by the COVID-19 pandemic. Due to that, their reading skills had not been well developed, even in their L1. Thus, a second plan was to engage 8<sup>th</sup> and 9<sup>th</sup> grade students, since they had, according to the teachers, more consolidated reading skills.

The average age of these groups was 13.9 years ( $SD = 0.8$ ). The majority of participants came from rural communities and small urban centers within the city. According to the IDEB website (Brasil, 2023), one of the neighborhoods housing a school is categorized as rural, while the other is labeled as urban. However, it is important to note that both schools enroll students from various locations. The overall socioeconomic status of the public attending these schools, as conveyed by the school principals, is predominantly low income.

Participants from both the experimental and control groups completed two questionnaires and one inventory: the Questionnaire on Reading Habits and English Learning Interest (in Portuguese: Questionário de Hábitos de Leitura e Interesse pela Língua Inglesa - QHLILI), the Language History Questionnaire for Research with Bilinguals (in Portuguese: Questionário de Histórico da Linguagem para Pesquisa com Bilíngues - QHL) (Scholl & Finger, 2013), and the Metacognitive Awareness of Reading Strategies Inventory - MARS (Mokhtari & Reichard, 2002) (see the Materials section below, as well as the appendices). These instruments aimed to assess adolescents' knowledge of their languages, motivation for reading, and prior experience with reading strategies.

For this study, specific responses were extracted from the material, such as reading enjoyment, motivation to learn English, and knowledge on the three categories of reading strategies. Those responses focused on the most relevant skills related to the research as reported by the students. Following the identification and organization of answers in spreadsheets, independent *t*-tests were conducted to evaluate the groups, examining potential statistical differences between them. The results revealed that the groups were balanced across variables, with the exception of listening proficiency, in which the experimental group exhibited statistically significant scores compared to the control group. Table 6 shows descriptive and table 7 shows inferential data from the participants:

**Table 5**

*Descriptive statistics of reading habits, language experience and strategy use for both experimental and control groups*

<i>Instrument</i>	<i>Question</i>	<i>group</i>	<i>mean</i>	<i>SD</i>
QHLILI	How much do you enjoy reading?*	Experimental	2,52	0,96
		Control	2,66	0,83
QHLILI	How much do you enjoy English?*	Experimental	2,47	0,82
		Control	2,70	0,88
QHLILI	How much do you enjoy English classes?*	Experimental	2,85	0,69
		Control	2,93	0,77
QHLILI	How important is English to you?*	Experimental	3,41	0,71
		Control	3,43	0,83
QHLILI	How hard is learning English to you?***	Experimental	2,58	0,90
		Control	2,66	0,98
QHL	Number of minutes watching TV in L2 a day	Experimental	76,27	140,93
		Control	56,66	84,98

QHL	Number of minutes playing videogame in L2 a day	Experimental	136,95	188,21
		Control	104,80	186,06
QHL	Number of minutes listening to music in L2 a day	Experimental	147,59	187,58
		Control	177,94	207,41
QHL	Number of minutes reading in L2 a day	Experimental	53,87	132,48
		Control	87,29	213,59
QHL	Number of minutes writing in L2 a day	Experimental	64,03	106,53
		Control	71,20	111,03
QHL	Number of minutes speaking in L2 a day	Experimental	111,61	197,32
		Control	62,61	90,66
QHL	Reading proficiency in L2***	Experimental	2,73	1,32
		Control	2,45	1,24
QHL	Writing proficiency in L2***	Experimental	2,71	1,23
		Control	2,46	1,01
QHL	Listening proficiency in L2***	Experimental	2,68	1,37
		Control	2,23	1,04
QHL	Speaking proficiency in L2***	Experimental	2,60	1,21
		Control	2,33	1,28
MARSI	General scores in reading strategies use**	Experimental	3,28	0,66
		Control	3,18	0,75
MARSI	Scores in Global Reading Strategies use**	Experimental	3,24	0,73
		Control	3,10	0,80
MARSI	Scores in Problem Solving Strategies use**	Experimental	3,84	0,69
		Control	3,69	0,75
MARSI	Scores in Support Reading Strategies use**	Experimental	2,89	0,81
		Control	2,76	0,81

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*SD = Standard Deviation*

\*Values based on a 4-point Likert scale. See more details in the *Materials* section.

\*\*Values based on a 5-point Likert scale. See more details in the *Materials* section.

\*\*\* Values based on a 6-point Likert scale. See more details in the *Materials* section.

**Table 6**

*Inferential statistics comparing reading habits, language experience and strategy use between the experimental and control groups*

<i>Material</i>	<i>Question</i>	<i>t</i>	<i>p</i>	<i>SE</i>
QHLILI	How much do you enjoy reading?*	-0,87	0,383	0,16
QHLILI	How much do you enjoy English?*	-1,45	0,149	0,15
QHLILI	How much do you enjoy English classes?*	-0,57	0,567	0,13
QHLILI	How important is English to you?*	-0,14	0,882	0,13
QHLILI	How hard is learning English to you?***	-0,46	0,643	0,17
QHL	Number of minutes watching TV in L2 a day	0,83	0,408	23,57
QHL	Number of minutes playing videogame in L2 a day	0,84	0,400	38,04
QHL	Number of minutes listening to music in L2 a day	-0,80	0,420	37,49
QHL	Number of minutes reading in L2 a day	-0,92	0,357	36,11
QHL	Number of minutes writing in L2 a day	-0,33	0,740	21,54
QHL	Number of minutes speaking in L2 a day	1,58	0,116	30,87
QHL	Reading proficiency in L2***	1,21	0,229	0,23

QHL	Writing proficiency in L2***	1,21	0,229	0,20
QHL	Listening proficiency in L2***	2,02	<b>0,045</b>	0,22
QHL	Speaking proficiency in L2***	1,19	0,233	0,22
MARSI	General scores in reading strategies use**	0,79	0,426	0,12
MARSI	Scores in Global Reading Strategies use**	1,01	0,313	0,13
MARSI	Scores in Problem Solving Strategies use**	1,10	0,270	0,13
MARSI	Scores in Support Reading Strategies use**	0,87	0,384	0,14

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*SE = Standard Error*

\*Values based on a 4-point Likert scale. See more details in the *Materials* section.

\*\*Values based on a 5-point Likert scale. See more details in the *Materials* section.

\*\*\* Values based on a 6-point Likert scale. See more details in the *Materials* section.

As previously stated, participants included eight classes, comprising eighth and ninth grades, with an average of 20 students per class. In total, there were 161 participants in the initial stage of the research, with no exclusions at this point. The gender distribution consisted of 82 boys and 79 girls. The rationale for selecting students from these school years was based on the understanding that, in the final years of elementary school, students theoretically possess more consolidated reading skills in their second language (Brasil, 2017). Additionally, they may be more mature readers in their first language (L1), which can serve as a reinforcement for understanding the second language (L2) (Vasseur, 2013). Therefore, the choice of these school years was deemed suitable for implementing skimming, as it is a metacognitive strategy designed for emerging readers. Skimming involves prior and macrotextual analysis of the text to activate

prior knowledge (Lapkoski, 2012; Pereira & Scliar-Cabral, 2012; Rayner et al., 2016), enabling students to leverage transparent words in the text (cognates) and its visual information.

All the students comprising the initial sample for this research were involved in the testing. It means that the sample also included students with intellectual disabilities, such as autism and Down syndrome, as reported by the school. These students received assistance from class assistant teachers who work with them in accordance with current educational legislation. However, data collected from these students were not utilized in the data analysis. During testing and instruction, students with disabilities and disorders were included as part of the research and learning process, recognizing them as integral members of the school community. As mentioned before, data exclusion during analysis also extended to students who did not receive parental approval or marked 'no' in the assent form and were, for ethical reasons, not qualified for participation in the study. Additionally, to preserve their anonymity, participants eligible to the experiment were identified by the initials of their names and surnames.

### **4.3 Materials**

This section provides a detailed account of the tools employed in the execution of the research. The materials utilized in this investigation are listed based on the order of the research steps. For example, in the first meeting, the consent form was distributed to the participants, so this is the first item to be described. Besides, the full list of items that contributed to the implementation of the experiment is provided at the end of this work, in the appendices.

#### ***4.3.1 Consent Form***

During the first meeting for data collection, the Informed Consent Form was distributed to students. The form contained general information about the study, risks and benefits of the experiment, guarantee of anonymity, and contact of both researchers. The information provided

about the study were not specific, i.e., parents did not know that the study involved skimming, cognates, or genres. We made this decision due to the idea that it would bias the experiment, considering that parents or guardians might tell it to the participants or even teach them about it before the tests. Finally, students were asked to take them to their parents, requesting their signature to authorize their children's participation in the study (Appendix IV).

#### ***4.3.2 Assent Form***

In the second meeting, preceding the administration of the pretest, the Assent Form was provided to the students. This document was distributed exclusively to those who had previously submitted the signed consent form from their parents. In essence, students who presented the signed consent form were then invited to sign the Assent Form, affirming their personal agreement and consent to participate in the research. Again, this form contained information about the study and a guarantee of anonymity. An additional excerpt was the mention that they might quit the experiment at any time (see Appendix V).

#### ***4.3.3 Questionnaire of Reading Habits and Interest in English Learning***

This questionnaire, administered during the second meeting, had 16 questions covering various aspects. The questions included: 5 items with Likert scale responses, 4 multiple-choice questions, 5 multiple-choice questions with written answer completion, and 2 open-ended questions. The content of the questionnaire delved into specific topics such as enjoyment of reading and the English language, family and school literacy practices, personal opinions about reading and the second language (L2), as well as basic information such as age and grade (Appendix VII).

#### ***4.3.4 Language History Questionnaire for Research with Bilinguals (Scholl & Finger, 2013)***

The second questionnaire, which focused on the acquisition and practice of additional languages, was originally developed by Scholl and Finger (2013) to map aspects of the linguistic profile of Brazilian bilingual speakers. Administered during the second meeting, this tool consisted of 5 written questions, 5 multiple-choice questions, and 1 multiple-choice question with a written complement. A total of 11 questions were presented to participants to explore their bilingual (or multilingual) characteristics. The version of the questionnaire used in this study underwent adaptation, involving the removal of certain questions, such as the one exploring whether participants had been through any proficiency test prior to the experiment (14 were present in the original version). It was also excluded information to be filled about language 3 and 4, because we were more interested in the answers about languages 1 and 2. Additionally, we modified terms to make the instrument easier to the participants, once we considered that they would find it difficult to complete. One example of these modifications was the utterance ‘Please indicate, marking with an X, which of these factors contributed most to the learning of your languages’ (students could choose more than one option). The original form was ‘Indicate, on a scale of 0 to 6 (0 = not at all, 6 = very much), how much each of these factors contributed to the learning of your languages’. The questionnaire, along with these modifications, is listed in the Appendix VIII.

#### ***4.3.5 MARSİ Test (Mokhtari & Reichard, 2002)***

The third and final questionnaire, the Metacognitive Awareness of Reading Strategies Inventory (MARSİ) was also administered in the second meeting. It was developed by Mokhtari and Reichard (2002) and aims to assess individuals' knowledge of reading strategies. The instrument is composed of 30 statements related to the awareness and utilization of strategies. Each statement is followed by a scale ranging from 1 to 5. This scale corresponds to the



frequency with which an individual employs a particular strategy: number 1 indicates ‘I never or almost never do that’; number 2 stands for ‘I do this only occasionally’; number 3 means ‘I sometimes do this’ (about 50% of the time); number 4 indicates ‘I usually do this’; and 5 means ‘I always or almost always do that’. For instance, a statement might be ‘I look at tables, figures, and images in the text to enhance my textual understanding’, accompanied by the numbers 1 through 5. Participants are required to mark the number that corresponds to the frequency of their practice. Following completion, points are tallied, allowing participants to self-assess their performance. However, due to time and logistical constraints in this research, students were unable to conduct this self-evaluation, and their responses were later analyzed for the study’s purpose only. It is important to note that the original test is in English, and for this experiment, it was translated into Portuguese by the researcher (Appendix IX).

#### ***4.3.6 Selection of Texts and Cloze Test***

The gapped texts utilized in the third and fifth meetings, corresponding to the pre and posttests, respectively, consisted of distinct textual genres — a fable and a news article — each approximately 280 words in length (see appendices and table 7 for details). The selection of these genres was informed by the students’ familiarity and accessibility. The fable, geared toward a younger audience, was chosen with the expectation that students would possess accumulated knowledge of this text format, given its widespread use in the school environment (Neves & Borges, 2018; Baretta & Pereira, 2019). Conversely, news articles are a common and popular textual genre easily found in printed newspapers, digital platforms, and social networks. Plus, according to Aboud et al. (2019), nowadays life requires comprehension of these texts, especially in educational settings. Thus, it was assumed that students had prior reading experiences with this genre.

For the news genre, the choice of theme was deliberate to ensure an appropriate level of difficulty for the participants. The music theme was selected to make the texts more engaging and relatable, aligning with the fables. The goal was to select texts that were accessible for the age of the participants and thus be comparable to the fables. However, to prevent the texts from potentially being easier than the fables, currently popular artists were not chosen. Thus, singers ranked on Billboard 200 chart<sup>11</sup> were not included as themes of the news articles for pre- and posttests. Nevertheless, singer Olivia Rodrigo, ranked 3<sup>rd</sup> by the time, was on the news article chosen for the instruction session. This choice was made to motivate students to learn and apply the reading strategy more precisely.

Regarding the gaps in these texts, it was in accordance with the *cloze* technique, which is a procedure performed to analyze and understand the reading processing of a given person or group (Taylor, 1953). The task is typically employed to assess what the reader comprehended from the material and whether they were capable of making predictions and producing inferences, rendering it "a tool capable of revealing the cognitive processes involved during reading" (Tomitch, 2008, p. 40). In this context, the model adopted for the *cloze* test in the texts of this research was the SOC-S10 (Joly, 2009; Joly et al., 2014). This choice was made considering that the texts were in English, and it was understood that the participants would require more visual information, in terms of vocabulary, to conduct the analyses and formulate their hypotheses.

Among the three *cloze* models presented in the theoretical background, the SOC-S10 is the model that proposes a smaller number of word deletions and a greater sequence of words between the gaps. This feature provides the reader with more content to activate related lexical

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<sup>11</sup> For further information, visit <https://www.billboard.com/charts/billboard-200/>

representations, to make semantic associations with the L1, as well as to recall their previous L2 knowledge (Smith, 2003; Vasseur, 2013). The number of deletions predicted by Joly and colleagues (2014), for this model, was 17 words. However, in this research, only 15 deletions were possible due to the syntactic structure of sentences in English. Thus, all texts had not 17, but 15 gaps.

To illustrate the discussion, consider the following example from the SOC-S10 model: One day, a bear became very hungry as he went to search for some \_\_\_\_\_ (cloud/food/always). He searched high and low but could not find a \_\_\_\_\_ (really/towel/piece) of anything that he could eat. It is clear, therefore, that, as predicted by Joly (2009) and Joly and colleagues (2014), nouns were deleted after every 10 words, and, in the same way, three options were given, two of which were the same grammatical class (cloud and food; towel and piece - nouns) and a different class (always and really - adverbs). Thus, the technique was used with the research participants so that they could carry out the reading and, possibly, make the necessary meaning negotiations to complete the spaces properly.

It is noteworthy that the words provided in parentheses were controlled to have the same number of letters. Short and long words were intentionally not used in the same set of options, as shorter words are generally easier to read than longer ones (van Assche, Brysbaert, & Duyck, 2020). Thus, the three words enclosed in parentheses, in addition to being two nouns and another word of a different class, as predicted by the *cloze* model by Joly (2009) and Joly and colleagues (2014), were also words of equivalent length. For the selection of the two additional, incorrect, options of words, the online word list tool *You Go Words*<sup>12</sup> was utilized, focusing on factors such as the number of letters, vowels, consonants, and syllables.

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<sup>12</sup> For further information, visit <http://www.yougowords.com>.

In relation to the number of cognate words adopted in the texts, they were categorized into two levels of quantity: a greater number of cognates and a smaller number of cognates. The texts with the higher number featured 15 cognate words, while those with the lower number contained 6 cognates. The cognate words were identified using NIM<sup>13</sup>, an online platform which contains lexical tools for scientific research purposes developed by Guasch, Boada, Ferré, and Sánchez-Casas (2013). Among these tools, NIM provides a calculator for a numerical index indicating the orthographic similarity between two words (e.g., in the pair *rosas – roses*), based on the work previously conducted by Van Orden (1987). The cognate words identified and utilized in this research had an orthographic similarity index of 0.7 or greater, on a scale ranging from 0.0 to 1.0.

Similarly, some of the words constituting the texts were, to some extent, modified to allow the materials to align with the proposed structure. Specifically, in order to achieve the exact number of cognate words desired in both genres (6 cognates in texts with a lower quantity and 15 cognates in texts with a higher quantity), it became necessary to alter certain words. The fables and the news were not completely overhauled; rather, changes and substitutions of some expressions for synonyms were implemented to attain the desired number of cognate words for the experiment. This manipulation relied on the online dictionary of synonyms Thesaurus<sup>14</sup>, which provided a list of semantically equivalent words. These words were carefully examined before being applied in the substitution process, both to transform cognate words into non-cognate ones (in the case of texts with an excess of transparency) and to transform non-cognate words into cognates (in the case of texts with low transparency). For instance, the fable containing 06 cognates from the pretest had originally 09 cognates. Thus, three of them were

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<sup>13</sup> For further information, visit: <http://psico.fcep.urv.cat/utilitats/nim/eng/graphsim.php>

<sup>14</sup> For further information, visit: <https://www.thesaurus.com>.

replaced by non-cognates words (e.g. content – happy). On the other hand, the news containing 15 cognates from the posttest had 12 cognates in the original form. Therefore, it was necessary to transform three other words into cognates in order to reach the amount of 15 (e.g. huge – gigantic).

The cognate words, therefore, were distributed throughout the texts, spanning from the beginning to the end. However, they were not included in the target words of the gaps. In other words, the cognates were not utilized as words to be filled in during the *cloze* task, and consequently, they were not incorporated into the options provided in parentheses. This decision was made to avoid the need to control, in the same manner, the quantity of cognate words that would be gapped in all texts. Also, the aim of the research was to manipulate the text and not the target words.

Another measure adopted to enhance control over the research materials involved verifying the frequency rate of the words used in the texts. This step aimed to ensure that students would not be unduly influenced by expressions of varying familiarity or visibility in their day-to-day lives. Initially, all the words used in the ten texts were analyzed, classified into their respective parts of speech, and organized in Microsoft Excel spreadsheets. This approach facilitated the observation of whether there was a balanced distribution of words in each class across all the texts used in the research. Furthermore, content words, namely nouns, adjectives, and verbs, were isolated and assessed for their frequency indexes. This analysis sought to determine whether there was equivalence in the frequency of occurrence of these words across the texts. These groups of words were also organized in spreadsheets, and subsequently, the data were input into an online lexical frequency indexing tool. The English Lexicon Project (ELP)<sup>15</sup>

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<sup>15</sup> For further information, visit: <https://elexicon.wustl.edu/index.html>.

was employed for this purpose. The ELP assesses specific characteristics of a group of words and provides lexical frequency data (Balota, Yap, Hutchison, Cortese, Kessler, Loftis, Neely, Nelson, Simpson, & Treiman, 2007). Words absent from the ELP database were replaced by synonyms, which were then reintroduced into the tool to obtain frequency values per million.

Finally, text difficulty was also controlled. To do so, all the texts were run on Coh-Metrix<sup>16</sup>, which is a tool that verifies more than a hundred indices from a given text (Graesser, McNamara, Lowrse, & Cai, 2004; McNamara & Graesser, 2012). Among these indices, there are: number of sentences (paragraph length), number of words (sentence length), number of letters (word length), and readability (in L1 and in L2). Beyond that, Coh-Metrix also offers levels of text easability, which is observed through specific aspects, such as narrativity, syntactic simplicity, and word concreteness.

Readability can be understood as the ease with which texts are processed and understood by readers, i.e., how accessible they are to be read by a subject (Crossley, Heintz, Choi, Batchelor, Karimi, & Malatinszki, 2023). L2 readability, thus, is considered the extent to which materials in the L2 match readers' abilities during text comprehension (Crossley, Greenfield, & McNamara, 2008). In this sense, the scores provided by Coh-Metrix demonstrate the level of difficulty of a text in the L2. Additionally, it considers psycholinguistic aspects, such as decoding (lexical components), syntax, meaning construction, and mental representation development (McNamara, Kintsch, Butler-Songer, & Kintsch, 1996). Outcomes from Coh-Metrix L2 readability follow the patterns of the Flesch Reading Ease Index (Flesch, 1948), in which the higher the value is, the easier it is to read a given text, in a scale from 0 to 100 (Graesser et al., 2004).

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<sup>16</sup> For further information, visit <http://cohmetrix.memphis.edu/cohmetrixhome/>

Narrativity, syntactic simplicity, and word concreteness, which are compounds of text easability, are important elements to be considered when speaking of accessibility during reading. McNamara and Graesser (2012) explain these constructs, mentioning that a text with a high level of narrativity tends to be more familiar to the reader, since it is related to everyday conversation. They also mention that it also tells a story, has characters, and demands high background knowledge from the reader about events and places. Syntactic simplicity, in its turn, happens when a sentence has a lower number of words, and its structure is easier to process. Lastly, the authors state that word concreteness is present when words are concrete and meaningful. Due to that, there is a facilitation for the reader to build mental representations of the concepts (Graesser et al., 2004). The table below shows descriptive statistics for these variables, as well as for the previously mentioned text characteristics.

**Table 7**

*Characteristics of the texts used in the experiment*

	Pretest				Posttest			
	Fable		News		Fable		News	
	- cog.	+ cog.	- cog.	+ cog.	- cog.	+ cog.	- cog.	+ cog.
Number of words	278	282	273	272	269	282	265	280
Number of content words	83	94	99	94	93	90	99	112
Frequency of content words (M)	614,95	621,86	509,6	538,89	536,35	514,36	536,31	519,19
O.S. of cognates (M)	0,79	0,78	0,78	0,79	0,81	0,82	0,81	0,81

Number of sentences	25	29	19	18	31	26	20	19
Sentence length (M)	11,5	10,4	15	16,5	9,2	11,7	14,4	15,7
Word length (M)	4	4,1	4,3	4,4	4,2	4,2	4,3	4,2
Text easability: narrativity*	76,7	74,8	57,14	37	77,9	89,6	42,4	46,4
Text easability: syntactic simplicity*	70,1	72,9	43,64	42	75,1	54,3	50,8	64,4
Text easability: word concreteness*	98,9	83,1	77,9	86,6	93,3	46,8	38,5	73,5
Coh-Metrix L2 readability	13,9	14,4	18,6	18,5	17,7	18,2	14,6	21

- cog. = less cognates; + cog. = more cognate; M = mean; O.S. = orthographic similarity.

\*Values in percentile.

Source: elaborated by the authors

In order to verify whether there were significant differences between the texts, *t*-tests were conducted. It was not possible to run tests including the variables from Coh-Metrix (number of sentences, sentence length, word length, text easability and L2 readability), since these are single values. However, we ran analyses on orthographic similarity, frequency of the content words and their length to compare them across the phase of study, genre and amount of cognates.



There were no significant differences in orthographic similarity between the two fables ( $n = 06$  and  $n = 15$  cognates) from the pretest ( $t(19) = 0,293$ ;  $p = 0,772$ ) nor the posttest ( $t(19) = 0,186$ ;  $p = 0,855$ ). Similarly, it was not found a significant difference in the orthographic similarity in the two news articles ( $n = 06$  and  $n = 15$  cognates) from the pretest ( $t(19) = -0,147$ ;  $p = 0,885$ ) nor the posttest ( $t(19) = 0,119$ ;  $p = 0,906$ ). When comparing genres, in both the pretest ( $t(40) = -0,319$ ;  $p = 0,751$ ) and the posttest ( $t(40) = -0,276$ ;  $p = 0,784$ ) no differences in the orthographic similarity between fables and news was observed. Taken together, these results suggest that orthographic similarity was balanced across texts in the experiment.

When it comes to content words frequency, similar outcomes were encountered. There was no significant difference in the content word frequency between the two fables (i.e. containing more and less cognates) from the pretest ( $t(173) = -0,436$ ;  $p = 0,663$ ) nor the posttest ( $t(183) = 0,110$ ;  $p = 0,912$ ). Similarly, it was not observed a significant difference in the content word frequency in the two news articles from the pretest ( $t(185) = -0,153$ ;  $p = 0,878$ ), and it was the same for the posttest ( $t(198) = 0,083$ ;  $p = 0,934$ ). Comparing genres, again it was not found differences between fables and news in the pretest ( $t(360) = 0,351$ ;  $p = 0,726$ ). The same occurred in the posttest ( $t(383) = -0,010$ ;  $p = 0,992$ ). In sum, no differences were found among the texts from the experiment regarding frequency in the content words, i.e., nouns, adjectives, and verbs.

Finally, in terms of content word length, a slightly different result was observed. There was no significant difference in the content word length in the two fables from the pretest (i.e. high and low quantity of cognates) ( $t(173) = -0,912$ ;  $p = 0,363$ ). However, there was a marginally significant difference in the content word length between the two fables from the posttest ( $t(183) = -1,968$ ;  $p = 0,051$ ). Additionally, it was not observed a significant difference in

the content word length in the two news from the pretest ( $t(185) = 1,188; p = 0,237$ ), and it was the same for the posttest ( $t(198) = -0,955; p = 0,341$ ). Comparing genres, it was not found differences between fables and news in the pretest ( $t(360) = -0,182; p = 0,856$ ). It was also the case for the posttest ( $t(383) = -0,124; p = 0,901$ ). Thus, even though there was a marginal difference between the fables from the posttest, it can be said that texts were also well balanced.

Although it was not possible to run tests on Coh-Metrix indices, it is possible to visualize that texts were relatively balanced across genres. For instance, speaking of word length, the number of letters ranged from 4 to 4,4; and sentence length ranged from 9,2 to 16,5. Readability in the L2, as the indices cited previously, does not show much variability, ranging from 13,9 to 21. This is even more salient when the observation is made within genres, as may be seen on Table 7. To better understand whether these numerical differences in L2 readability should indeed be treated as similar, we compare it to previous studies. Hu (2023) verified whether texts from textbooks to be applied to English learners in China were balanced across levels of readability in L2. He analyzed four volumes and ran their texts on Coh-Metrix. Values ranged between 9,7 and 23,4 (textbook 1), 8,3 and 19,3 (textbook 2), 10 and 23,7 (textbook 3), and 7,8 and 17,3 (textbook 4). The author concluded that although a few texts embedded in the textbooks were considered more difficult than others, they did not show much variability in terms of readability and thus could be used interchangeably with the English learners (Hu, 2023). Finally, when it comes to narrativity, it was observed what is natural for these specific genres: higher values for fables, and lower values for news articles. Regarding syntactic simplicity, it was also expected that fables had higher values, since they are provided of more syntactic consistency (Denton et al., 2015). That was also seen for word concreteness.

In sum, it is reasonable to state that texts were relatively equivalent, with the exception of the aspects that make them different, i.e. that are inherent of their own structure, such as narrativity and syntactic simplicity. Thus, students were supposed to read those texts and, using the skimming strategy, fill in the blanks using what they learned during the instruction. Information about this instruction is provided below.

#### ***4.3.7 Skimming Instruction***

In the fourth meeting, PowerPoint was employed to present slides, constituting a 19-slide presentation. This presentation encompassed definitions and examples of skimming implementation. It is important to highlight that the skimming strategy was chosen among many others reading strategies for specific reasons: this tool encompasses aspects of both top-down and bottom-up approaches discussed in the theoretical background (see section 2.1.1). In other words, when readers skim a text, they analyze microelements (such as phonemes and letters) that compose words in titles, subtitles, bold, and underlined words, in a more bottom-up approach (Kato, 1999; Perfetti, 2002). Additionally, they pay attention to the macro elements, such as figures and graphs. These elements will help the reader to raise hypotheses about the text, in a more top-down approach (Smith, 2003; Kleiman, 2011).

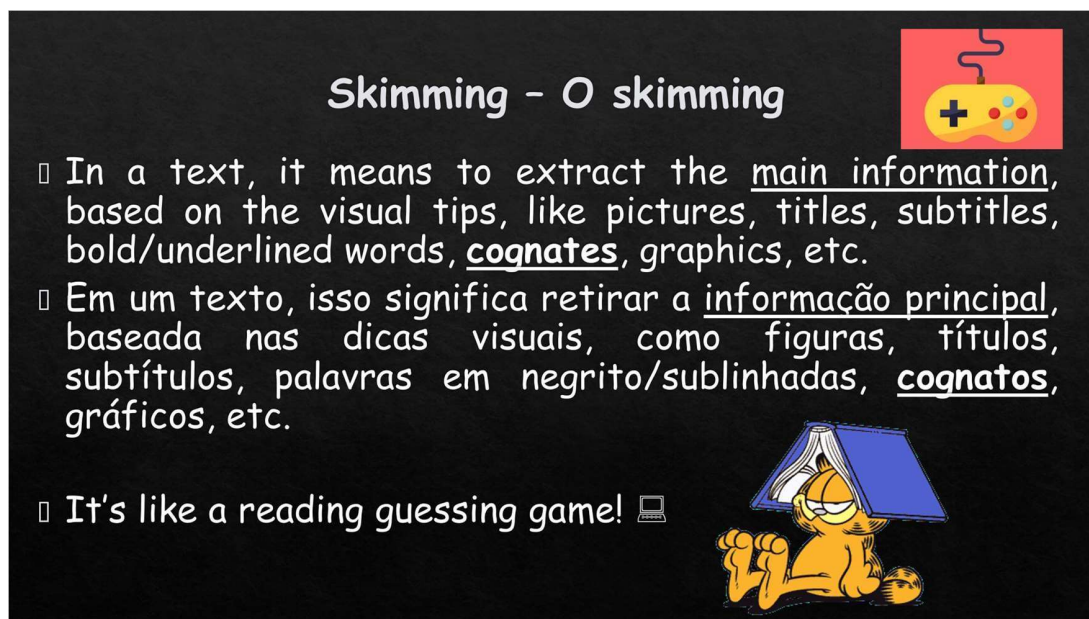
The slides about this strategy were presented in English with a corresponding translation into Portuguese, aligning with the goal of ensuring comprehension among all participants. The content of the slides included elucidation on strategies, the concept of a strategic reader, and an exploration of skimming. We followed models of presentations that are commonly used in classrooms, so the students could be familiar with the approach.

During the presentation, the text on the slides alternated between justified and centered formats, utilizing the Comic Sans font in white against a dark background. This intentional

formatting choice aimed to captivate participants' attention. Images of the iconic Garfield® character from comics and pop culture were strategically incorporated into the slides to enhance engagement, along with other visual elements designed to help students grasp the instructional content. Key words on the slides were highlighted to emphasize the instructional strategy, and accompanying images provided visual cues. The incorporation of these elements aimed to stimulate students' interest in the presented material. The figure below shows one of the slides of the presentation (see Appendix XIV for the complete list of slides):

**Figure 7**

*Slide of the instruction on skimming*



**Skimming - O skimming**

- In a text, it means to extract the main information, based on the visual tips, like pictures, titles, subtitles, bold/underlined words, cognates, graphics, etc.
- Em um texto, isso significa retirar a informação principal, baseada nas dicas visuais, como figuras, títulos, subtítulos, palavras em negrito/sublinhadas, cognatos, gráficos, etc.
- It's like a reading guessing game! 🎮

Source: elaborated by the authors.

As part of the instructional strategy, specific exercises were planned to focus on the two genres under study — news and fable. The texts, each averaging around 280 words, were presented in English. On this particular day, no formal tests were administered. The texts were presented in their entirety, supported by macrotextual features such as titles, images, highlighted words, and cognates (as detailed in the appendices).

The instructional session took place on a predetermined day, following agreements with the teacher and school management, consistent with previous meetings. The delivery of the skimming strategy spanned approximately 90 minutes. The session involved a comprehensive explanation of the slides, using the first half of the time, and the subsequent administration and discussion of the complete texts (fable and news). This discussion comprised the final half of the period.

Two breaks were incorporated to prevent student fatigue during the instruction. It is noteworthy the fact that the researcher herself, who was also the English teacher for one of the eight classes (902 from school B – experimental group), conducted the skimming instruction throughout this 90-minute session. Two out of the three English teachers in attendance expressed interest and remained in the classroom during the experiment, demonstrating their commitment to understanding the research.

It is important to stress that only one session of instruction occurred, and it was due to the schools' calendars. According to the principals and teachers, there were still specific contents to be administered to the students, and tests to be executed in order to achieve their teaching goals. Because of that, the research could be developed in a certain number of weeks, or the teachers' schedules would be jeopardized. Therefore, even though we wanted to extend the training session to additional days, there was no available time.

An additional noteworthy aspect pertains to the language employed during the instruction. It was observed, based on the Language History Questionnaire (Scholl & Finger, 2013), and also on reports from English teachers and school administrators, that students possessed limited experience in their second language (L2). According to Finger and Ortiz-Preuss (2018), they are successive incipient bilinguals since they are still in the beginning of the

L2 development. Consequently, it was conceivable that the participants, as a whole, lacked the requisite proficiency to comprehend instructions, directions, and messages delivered in English. In response to this, the language utilized for teaching skimming was the students' native language, Brazilian Portuguese.

This decision was motivated not only by the reported language limitations but also by the understanding that Portuguese was the predominant language among the majority of participants. It was presumed that instruction would be more effectively understood when delivered in the participants' L1 (Arêas da Luz Fontes, Pigatto, Finger, & Mangie, 2015). English was selectively employed in specific instances, such as in slides and greetings, with the purpose of preventing any potential feelings of insecurity or anxiety among students regarding the experiment.

#### ***4.3.8 Field Diary***

To comprehensively capture the nuances of the study, the researcher employed a field diary — a specialized notebook designed for recording crucial events in a given research context. This approach proved useful, particularly considering the diverse array of classes involved in the study. The field diary served as a repository for crucial details essential for subsequent data analysis. Throughout all five sessions with the classes, the diary documented pertinent information, including class profiles, student behavior, external interferences, ambient noise, and other relevant data.

### **4.4 Procedure**

The research procedures encompass the actions undertaken from the initial stages of implementation to the conclusion of data collection, offering crucial insights into various facets of the study's progression. While the steps for establishing data collection have been briefly outlined earlier, the procedures involved a series of five meetings with groups of students. These

groups were randomly assigned to either the experimental or control conditions. The meetings occurred within the school premises, specifically in the students' regular classrooms.

During the initial meeting, the researcher performed presentations, provided explanations, and distributed an Informed Consent Forms to be conveyed to parents and/or guardians. In collaboration with the English teachers of the respective classes, the researcher entered the classrooms on this day to establish the first contact with the participants. The discussion during this session revolved around general aspects of the research, as outlined in the script included in the appendices. However, specific topics, such as the manipulation of text types and the adjustment of cognate word numbers, were deliberately avoided to prevent biasing the students' practice and to maintain maximum neutrality.

Students were informed about the importance of delivering the consent form to their parents or guardians. They were instructed to bring back the signed documents within seven days, at which point the researcher would collect them. In general, the teenagers showed a good behavior, were mostly friendly with the researcher and willing to be a part of the experiment.

Following the return of the authorizations from the parents, the researcher gained clarity regarding the number of participants in the study. Participants who received negative responses from their parents were still included in the experiment; however, their data were not subjected to analysis. In the subsequent week, these participants were provided with the assent form, allowing them to express their willingness to participate in the experiment. Two participants expressed a negative response on the assent form, leading to the exclusion of their data from further analysis. Consequently, after the completion of the Assent Form phase, the groups were randomized. After randomization, groups were configured as follows: i) experimental – classrooms 801 and 901 from school A, and 801 and 902 from school B; ii) control – 802 and

902 from school A, and 802 and 903 from school B. It is possible to notice that both groups had students from both levels, i.e, experimental and control groups were composed by 8<sup>th</sup> and 9<sup>th</sup> grade students.

During the second meeting, participants completed the three questionnaires. Prior to the data collection, a discussion was held with the participant groups addressing the possibility of fatigue. Consequently, a break was incorporated into the activity around the 25th minute to allow participants to rest, hydrate, and/or use the restroom. This break period lasted approximately 10 minutes. Participants showed more difficulty during the execution of the Language History questionnaire (Scholl & Finger, 2013), and orientations were provided to solve their doubts.

After completing this phase, the third meeting with the participants started, marking the administration of the pretest. This stage occurred in the week subsequent to the administration of the questionnaires. Once the room was organized, students received instructions regarding the upcoming activity — a *cloze* test using the SOC-S10 version (Joly et al., 2014). The researcher provided information about the material to be delivered, offering necessary clarifications.

During this briefing, students were instructed to analyze the gapped text and attempt to fill in the spaces with the English words they deemed most appropriate. They were granted the option to choose from three provided options adjacent to each blank space. No additional instructions were given pertaining to content, translations, or specific answers, as the objective was to observe group performance in the absence of the skimming strategy. The duration of this stage was approximately 60 minutes. Students were permitted to use toilets and hydrate during half of the designated time, at the 30-minute mark. Upon the conclusion of data collection, the researcher collected the obtained data, and students returned to their regular school activities.



In the subsequent week, the research progressed to the fourth meeting, specifically with the experimental group. Given that this stage involved a portion of expository content, which might have been perceived as potentially dull by the students, the slide presentation incorporated distinctive elements, as previously discussed (popular character). These modifications aimed to enhance participant motivation and engagement without adversely impacting the research results.

Desks and chairs were deliberately arranged at a distance from one another, promoting increased isolation and concentration among students and minimizing the potential for cheating. There was also a concern with COVID-19, so students were already used to that organization, due to the school rules. During this session, the researcher delivered a presentation on reading strategies in general, culminating in an overview of the metacognitive strategy of pre-reading skimming. The researcher provided exemplifications and engaged in verbal interactions with the participants to assess comprehension.

The texts designated for the practice of the strategy were distributed, and a collective exercise ensued, encouraging the collection of opinions from all, or the majority of students, to gauge their assimilation of the information. This stage extended for approximately one and a half hours, allowing students to take breaks every 30 minutes — two breaks, specifically for addressing physical needs. During this period, students seemed to be motivated. However, a few occurrences might have hindered a more attentive behavior of them. For instance, in the training session at school A, the media projector did not work. The researcher used her own tools since the machines from the school could not be used. More details on these occurrences are shown in the limitations of the study section.

In the fifth and final meeting with the participants, the posttest was administered to determine the potential impact of the skimming instruction on the experimental group, as well as

to assess differences between textual genres (fable and news) and the number of cognate words. The procedures for this step mirrored those of the pretest. Participants were tasked with completing the *cloze* task once more, using the SOC-S10 version, and were instructed to fill in the gaps with one of the three words provided next to the blank space.

Anticipating that students in the experimental group would recall the skimming instruction, the expectation was that, unlike the control group, they would activate prior knowledge through visual content analysis. This involved examining images, titles, or highlighted words in the reading material. Participants were reminded that no answers or clues would be provided, emphasizing the need to maintain consistency across both groups to preserve the integrity of the data.

The task duration was approximately 60 minutes, with a break permitted at the 30-minute mark for participants to address personal needs, such as using the bathroom or drinking water. Following the completion of the posttest, students resumed their regular school activities, and the researcher meticulously organized the data into folders, encompassing information from all phases of the research. Thus, at the conclusion of the data collection phase, acknowledgements were extended to the participants and school management. Additionally, plans were outlined for upcoming training sessions with other groups of students and teachers. Subsequently, the analysis of the obtained information began.

It is important to note that throughout the research implementation, certain factors such as illnesses, travel, or participant withdrawals led to a reduction in the number of students involved. Before inputting data into Microsoft Excel spreadsheets, a screening process was implemented to identify the total number of eligible participants for analysis. As previously stated, data from students without parental consent ( $n = 15$ ), those who responded negatively to the assent form ( $n$

= 2), students with intellectual disabilities ( $n = 7$ ), and those who missed one or more of the scheduled meetings ( $n = 25$ ) were excluded. Consequently, from the initial sample of 161 students, a total of 112 participants were eligible for data analysis. A total of 49 participants were excluded from the research, which is registered on *Plataforma Brasil* under the reference number 41119820.0.0000.5347.

## Chapter 5 – RESULTS

In this section of the study, we present the outcomes of the conducted analyses. The initial segment, i.e., the testing of hypotheses, will show the primary results pertaining to the principal prediction previously posited, specifically, the prediction associated with the skimming instruction. Subsequently, we present the outcomes of *post hoc* analyses conducted on a set of the main variables. Descriptive and inferential statistics are reported, accompanied by tables and figures to enhance the clarity of the experimental findings.

### 5.1 Testing of hypotheses

This study aimed at understanding how a pre-reading metacognitive strategy – skimming – would influence the reading performance of eighth and ninth graders from two public schools located in the South of Brazil. In addition to that, the effects of cognate facilitation and textual genre were also investigated, as well as their interaction with the skimming instruction. A significant difference between the experimental and control group, i.e., an effect of skimming instruction, in which the experimental group would outperform the control group was expected. A cognate facilitation effect, in which students would perform better on the text that had more cognate words, was also expected. In addition to that, a significant difference between the two text genres, in which students would perform better on the fables compared to the news, was predicted. Finally, significant interactions between the variables were also expected.

In order to test these effects, a 2 (group) x 2 (cognate quantity) x 2 (text genre) x 2 (time) mixed repeated measures ANOVA was performed, with the number of correct answers on the *cloze* test as the dependent variable. Quantity of cognates and textual genre were both manipulated within participants, while group was a between-subjects independent variable. The

descriptive statistics of students' performance on the *cloze* test can be observed in the table below:

**Table 8**

*Descriptive statistics for the testing of hypotheses analysis, involving Group, Time, Genre, and Cognate Quantity*

		<i>Pretest</i>				<i>Posttest</i>			
		Fable		News		Fable		News	
		- cog.	+ cog.	- cog.	+ cog.	- cog.	+ cog.	- cog.	+ cog.
Ctrl.	M	6,31	7,71	7,09	8,29	8,13	7,42	7,13	7,78
group	SD	3,10	2,88	2,47	2,47	2,68	3,16	2,66	2,55
Exptl.	M	5,51	7,77	6,98	7,84	7,47	7,14	6,46	7,05
group	SD	2,50	3,31	2,74	2,60	2,59	2,41	2,62	2,46

*- cog.* = less cognates; *+ cog.* = more cognates; *Ctrl.* = Control; *Exptl.* = Experimental; *M* = mean; *SD* = standard deviation.

Observing the table, it is possible to notice that the averages between the experimental and control groups are relatively similar. This may indicate, at first, that the instruction did not have an effect. The inferential analysis revealed that, in fact, no significant difference was observed between the control and experimental groups ( $F(1, 111) = 1,39; p = 0,241$ ). In addition, group did not interact with any of the other variables, including time (all  $ps > 0,05$ ). This indicates that the instruction did not work, i.e., participants in the experimental group did not seem to use skimming as a reading strategy any more than the control group at posttest. Because of that, the first and main hypothesis was not corroborated.

In the same path, we also did not find a significant effect of time (pre and posttest), indicating that the experimental group did not show any improvement between the phases of the experiment ( $F(1, 111) = 1,09; p = 0,299$ ). Additionally, no significant text genre effect was observed ( $F(1, 111) = 1,03; p = 0,312$ ), which points out that students performed similarly in

both fables and news articles. However, we found a significant cognate effect ( $F(1, 111) = 38,04$ ;  $p < 0,001$ ). This indicates that texts containing more cognate words were read more easily by the students.

In terms of interactions, we observed a few that were significant: i) time and genre ( $F(1, 111) = 21,65$ ;  $p < 0,001$ ); ii) time and cognate quantity ( $F(1, 111) = 25,95$ ;  $p < 0,001$ ); and iii) time, genre, and cognate quantity ( $F(1, 111) = 13,35$ ;  $p < 0,001$ ). Other interactions did not show statistical significance. Finally, since our main hypothesis was not corroborated, we decided not to analyze these interactions further.

Instead, we conducted a *post hoc* analysis. Moreover, to increase statistical power, the data from both groups were collapsed. Also, because the instruction did not seem to work, there was no reason to evaluate participants' scores at pre and posttest. Thus, we decided to look at only the pretest scores. We made this decision due to the higher balance among the texts at this testing time compared to the posttest (see table 7 for a summary of data regarding the characteristics of the texts). In addition to that, during pretest participants still did not have been through instruction, so it would reduce noise in the dataset. Hence, we ran a *post hoc* 2 (cognate quantity) x 2 (text genre) repeated measures ANOVA, with the same dependent variable (scores in the *cloze* task). These results will be discussed in the following section.

## **5.2 *Post hoc* analysis**

As previously stated, no differences were found between experimental and control groups. A new analysis was thus executed, including the other variables, and excluding the variables *group* and *time*. Descriptive statistics for these secondary analyses can be viewed on table 9, and a comparison among the means can be observed on figure 8.

**Table 9**

*Descriptive statistics for the 2 (genre: fable/news) x 2 (cognate quantity: less/more) ANOVA for the post hoc analysis*

	<i>Fable</i>		<i>News</i>	
	Less cognates	More cognates	Less cognates	More cognates
Mean	5,90	7,74	7,03	8,06
SD	2,82	3,09	2,60	2,53

*SD = Standard deviation*

Source: elaborated by the authors.

Through the table it is possible to visualize that texts which contained more cognates were filled out more accurately than the ones with less cognates during the *cloze* test. Also, in the opposite direction of what this study had predicted, the scores of the news were higher than the scores of the fables. Once more, we verified whether these differences were statistically significant. Inferential statistics regarding such test are disposed in the following table, and means can be observed on figure 8.

**Table 10**

*Inferential statistics for the 2 (genre: fable/news) x 2 (cognate quantity: less/more) ANOVA for the post hoc analysis*

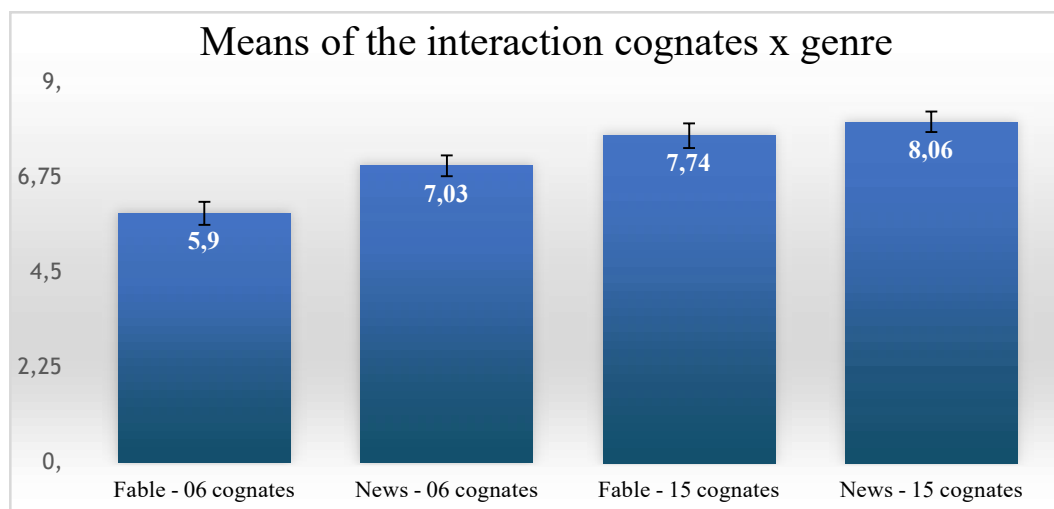
	<i>SE</i>	<i>Partial η<sup>2</sup></i>	<i>F</i>	<i>OP</i>	<i>p-value</i>
Genre (fable x news)	512,44	0,104	12,84	0,944	<b>0,001</b>
Cog. quantity (less x more)	417,74	0,355	61,11	1,000	<b>&lt; 0,01</b>
Interaction: cognates x genre	442,26	0,040	4,63	0,570	<b>0,033</b>

*SE = Standard Error; OP = Observed Power; Cog. = cognate.*

Source: elaborated by the authors.

**Figure 8**

*Means of the interaction between cognates (more x less) and genre (fable x news)*



Source: elaborated by the authors.

The analysis revealed a cognate quantity effect ( $F(1, 111) = 61,11; p < 0,01$ ), demonstrating that the texts that had more cognate words in their composition were easier to process by the students. This finding is in line with previous research that also found cognate facilitation during reading in the L2 (Libben & Titone, 2009; Cop et al., 2017; Van Assche, Brysbaert, & Duyck, 2020; Li & Gollan, 2021; Marian et al., 2022). However, our results have a different background: while those authors compared reading cognate *versus* non-cognate words, our study compared quantity, i.e., more and less cognates embedded in texts.

Additionally, there was a genre effect ( $F(1, 111) = 12,84; p = 0,001$ ). It demonstrates that participants had statistically different performances during the fables and news reading. It confirms what was observed in the descriptive statistics: the news (and not the fables, as predicted) were filled out more accurately by the teenagers.

Regarding the interaction *genre x cognate quantity*, follow-up *t*-tests were conducted with Bonferroni correction in order to understand the nature of this result. In the tests within genre, there was a cognate quantity effect for both fables ( $t(112) = -6,37; p < 0,01$ ) and news ( $t(112) = -4,37; p < 0,01$ ). Therefore, participants scored higher in the fables which contained more



cognates (i.e., 15) compared to the fables that contained less cognates (i.e., 06) in their composition. Similarly, participants performed better in the news articles that had more cognates embedded in the text (i.e., 15) compared to the news that had less cognates throughout the text (i.e., 06). It suggests that the higher number of cognates in the fables and the news articles, compared to their pairs with less cognates, was a factor that facilitated reading for the participants during the *cloze* test.

Finally, in the *t*-tests that were executed between genres, there was difference in the texts that contained fewer cognate words, i.e., 06 cognates ( $t(111) = -4,07; p < 0,01$ ). In this case, participants scored higher in the news articles compared to the fables. On the other hand, no difference was found in the texts that had more cognates in their composition ( $t(111) = -1,16; p = 0,247$ ). Therefore, the genre effect disappeared when fables and news had a higher number of cognates. In other words, it seems that the presence of more cognates eliminated the difference between the genres or equated the level of difficulty between them. Again, cognate words acted as facilitators during the reading of the texts in the participants' L2. In summary, although the fables were harder to comprehend, a higher number of cognates in the text may have compensated for this difficulty and may have leveled both genres. This interesting finding, as well as the previous ones, will be discussed after the questionnaires analysis.

### 5.3 Questionnaires analysis

In the present study we used three questionnaires: i) Questionnaire of Reading Habits and Interest in English Learning; ii) Language History Questionnaire (Scholl & Finger, 2013); and iii) MARS test (Mokhtari & Reichard, 2002) which aimed at detailing the participants' linguistic information and their reading background (see the *Materials* section for more details). On tables 5 and 6, it was possible to visualize comparisons between experimental and control groups on

selected variables from these three questionnaires, which pointed out that both cohorts were relatively similar. However, more may be learned about the results from the present study if we look more closely at those questionnaires and how they relate to participants' performance on the *cloze* test. Also, a more detailed inspection of the data from those questionnaires allows for a better understanding of the language and reading practice background of the participants.

In order to better capture participants' characteristics, as well as to investigate how the linguistic characteristics of participants could correlate with their performance on the close task, an additional analysis was conducted. In the correlational analysis we show next, the following variables were considered: i) scores on the fables with less cognates (06); ii) scores on the fables with more cognates (15); iii) scores on the news with less cognates (06); iv) scores on the news with more cognates (15); v) answers from the question *How much do you like reading?*; vi) answers from the question *How much do you like English?* vii) answers from the question *How much do you like your English classes?* viii) answers from the question *How often do you speak in your L2 at school?* ix) answers from the question *Number of minutes spent on reading in L2 a day*; x) answers from the question *Number of minutes listening to music in the L2 a day*; xi) answers from the question *Number of minutes playing videogame in the L2 a day*; xii) answers from the question *Number of minutes watching TV in the L2 a day*; xiii) answers from the question *Reading proficiency in the L2*; xiv) answers from the question *Listening proficiency in the L2*; xv) answers from the question *Speaking proficiency in the L2*; xvi) answers from the question *Written proficiency in the L2*; xvii) answers from the general scores on *MARSI test*; xviii) answers from the global reading scores on *MARSI test*; xix) answers from the problem solving scores on *MARSI test*; and xx) answers from the support reading scores on *MARSI test*. It is worth noting that the items v, vi, vii, and items from xiii to xx are based on Likert scales.

The correlational analysis showed a significant correlation between the scores of the fables that contained less cognates and the participants' time spent on reading ( $r = 0,22$ ;  $p = 0,025$ ). It indicates that the more they read in their L2 the better was their performance in fables containing less cognates. There was also a significant correlation between the scores on the fables that contained more cognates and the participants' amount of enjoyment in the English classes ( $r = 0,28$ ;  $p = 0,001$ ). It suggests that the more they affirmed enjoying their English classes, the better was their performance on the fables that contained more cognates.

A significant correlation between the scores of the news with less cognates embedded in the texts and the participants' amount of enjoyment in the English classes ( $r = 0,27$ ;  $p = 0,002$ ) was also found. It indicates that the more the students declared enjoying their English classes, the better was their performance on the news with less cognates. Additionally, scores on the news that contained more cognates, which was participants' highest scores in the experiment, correlated with three different variables. The first one was the participants' amount of enjoyment in the English classes ( $r = 0,22$ ;  $p = 0,014$ ), which points out that the more the adolescents alleged to like their English classes, the better was their performance on the news that contained more cognates. The second significant correlation was with written proficiency in the L2 ( $r = 0,17$ ;  $p = 0,047$ ). It suggests that the higher was the students' self-assessed written proficiency in the L2, the better was their performance in the news with more cognates. Finally, there was a correlation with listening proficiency in the L2 ( $r = 0,18$ ;  $p = 0,045$ ). Thus, the higher the participants' listening proficiency in the L2, the better was their execution of the news that had more cognates embedded in the text.

Reading enjoyment correlated with the participants' amount of enjoyment during English classes ( $r = 0,28$ ;  $p = 0,002$ ), which indicates that the more the participants like to read, the more

they enjoy their English classes. That variable also correlated with their enjoyment in English learning ( $r = 0,40$ ;  $p < 0,001$ ). It may be suggested that the more they like to read, the more they enjoy learning English. Another significant correlation was found with L2 reading proficiency ( $r = 0,20$ ;  $p = 0,025$ ), which implies that the more they enjoy reading, the higher was their L2 reading proficiency. A fourth correlation was found with L2 speaking proficiency ( $r = 0,19$ ;  $p = 0,033$ ), which suggest that the more the students declared enjoying reading, the higher was their speaking proficiency in the L2. Finally, reading enjoyment correlated with the minutes spent watching TV ( $r = 0,28$ ;  $p = 0,005$ ). It indicates that the more they seem to like reading, the more time they spend watching TV in their L2.

The variable English enjoyment, measured by the question *How much do you like English?*, correlated significantly with nine other variables. They are listed below:

1. The amount of enjoyment about their English classes ( $r = 0,54$ ;  $p < 0,001$ ), which suggests that the more they enjoy English, the more they like their English classes;
2. L2 reading proficiency ( $r = 0,27$ ;  $p = 0,002$ ). It indicates that the more the participants enjoy English, the higher is their self-assessed proficiency in their L2 reading;
3. L2 written proficiency ( $r = 0,28$ ;  $p = 0,001$ ), which points out that the more they enjoy English, the higher is their self-rated proficiency in their L2 writing;
4. L2 listening proficiency ( $r = 0,34$ ;  $p < 0,001$ ). It suggests that the more the participants enjoy English, the better is their self-rated listening in the L2;
5. L2 speaking proficiency ( $r = 0,35$ ;  $p < 0,001$ ), which indicates that the more the adolescents enjoy English, the higher is their self-assessed speaking proficiency in the L2;
6. General scores on MARS test ( $r = 0,19$ ;  $p = 0,030$ ). It evidences that the more they seem to like English, the more they use general reading strategies;

7. Global reading strategies scores on MARSII test ( $r = 0,19$ ;  $p = 0,029$ ), which suggests that the more the students like English, the more they use global reading strategies;
8. Support reading strategies scores on MARSII test ( $r = 0,18$ ;  $p = 0,040$ ), which suggests that the more they enjoy English, the more they use support reading strategies;
9. Problem solving reading strategies on MARSII test ( $r = 0,17$ ;  $p = 0,054$ ). This marginally significant correlation may indicate that the more the participants seem to like English, the more they use problem solving reading strategies;

In terms of the amount of enjoyment about the English classes, we found a few significant correlations. This variable correlated with self-rated L2 written proficiency ( $r = 0,22$ ;  $p = 0,013$ ), indicating that the more students like their English classes, the higher is their perceived written proficiency. Another correlation was found with L2 self-assessed speaking proficiency ( $r = 0,24$ ;  $p = 0,007$ ), which suggests that the more students seem to enjoy their English classes, the more proficient they perceive themselves in L2 speaking. A third correlation was with the general scores on MARSII test ( $r = 0,24$ ;  $p = 0,007$ ). It implies that the more participants like their English classes, the more they tend to use general metacognitive strategies. Similar results were found with MARSII's subcategories: global reading strategies ( $r = 0,26$ ;  $p = 0,003$ ), support reading strategies ( $r = 0,25$ ;  $p = 0,005$ ), and problem-solving strategies ( $r = 0,24$ ;  $p = 0,006$ ). It points out that the more students seem to like the English classes, the more they use strategies from these categories.

In terms of frequency of L2 speaking at school, it correlated only with speaking proficiency ( $r = 0,21$ ;  $p = 0,026$ ), which indicates that the more students speak in the L2 during school activities, the higher is their perceived speaking proficiency. Similarly, time spent on L2 reading only correlated with time spent playing videogame in the L2 ( $r = 0,21$ ;  $p = 0,038$ ). It

suggests that the more they read in their L2, the higher is the number of minutes they spend on videogames in English. Finally, time spent on playing videogame in English only correlated significantly with the number of minutes they watch TV in the L2 ( $r = 0,30$ ;  $p = 0,003$ ). This result implies that the more they play videogames in English, the more they watch TV in English.

On the other hand, time spent on listening to music in the L2 correlated with four different variables: number of minutes watching TV in English ( $r = 0,26$ ;  $p = 0,008$ ), general scores on MARS test ( $r = 0,19$ ;  $p = 0,042$ ), problem-solving strategies ( $r = 0,19$ ;  $p = 0,038$ ), and support reading strategies ( $r = 0,22$ ;  $p = 0,017$ ). It indicates that the more the participants listen to music in the L2, the higher is the number of minutes watching TV. It is also understood that the more students listen to music in English, the more they use general reading strategies, problem-solving strategies, and support reading strategies.

Regarding proficiency scores, participants' self-rated L2 reading proficiency correlated significantly with seven different variables. They are:

1. Written proficiency in the L2 ( $r = 0,70$ ;  $p < 0,001$ ), which points out that the higher is their perceived proficiency in L2 reading, the higher is their perceived proficiency in L2 writing;
2. Listening proficiency in the L2 ( $r = 0,53$ ;  $p < 0,001$ ), which points out that the higher is their proficiency in L2 reading, the higher is the students' proficiency in L2 listening;
3. Speaking proficiency in the L2 ( $r = 0,70$ ;  $p < 0,001$ ). It may suggest that the higher is the participants' proficiency in L2 reading, the higher is their proficiency in L2 speaking;
4. General scores on MARS test ( $r = 0,27$ ;  $p = 0,002$ ), which indicates that the higher is the students' reading proficiency in the L2, the better was their performance on MARS test;

5. Scores of global reading strategies from MARSIS test ( $r = 0,22$ ;  $p = 0,014$ ). It suggests that the higher is their reading proficiency in the L2, the better was participants' performance on the global reading strategies from MARSIS test;
6. Scores of problem-solving reading strategies from MARSIS test ( $r = 0,24$ ;  $p = 0,007$ ). It suggests that the higher is the students' self-rated reading proficiency in the L2, the higher were their scores in the category of problem-solving reading strategies from MARSIS test;
7. Scores of support reading strategies from MARSIS test ( $r = 0,22$ ;  $p = 0,011$ ). It indicates that the higher is the adolescents' reading proficiency in the L2, the higher were their scores in the category of support reading strategies from MARSIS test;

When it comes to self-assessed listening proficiency in the L2, it correlated with speaking proficiency ( $r = 0,50$ ;  $p < 0,001$ ), listening proficiency ( $r = 0,61$ ;  $p < 0,001$ ), in addition to reading proficiency, which was already mentioned. It means that the higher is the adolescents' listening proficiency in the L2, the higher are also the proficiencies in these skills. Speaking proficiency correlated with general scores on MARSIS test ( $r = 0,27$ ;  $p = 0,002$ ), and with its three subcategories: global ( $r = 0,25$ ;  $p = 0,004$ ); problem-solving ( $r = 0,26$ ;  $p = 0,003$ ); and support ( $r = 0,25$ ;  $p = 0,005$ ). It suggests that the higher is the participants' proficiency in speaking, the higher were their scores on general MARSIS and on its three categories. Finally, written proficiency correlated significantly with five different variables. The first one is L2 speaking proficiency ( $r = 0,68$ ;  $p < 0,001$ ), which implies that the higher is the students' proficiency in L2 writing, the higher is their L2 speaking proficiency. Secondly, it comes general scores on MARSIS test ( $r = 0,20$ ;  $p = 0,021$ ), and its three subcategories – global ( $r = 0,20$ ;  $p = 0,023$ ), problem-solving ( $r = 0,20$ ;  $p = 0,024$ ), and support reading strategies ( $r = 0,20$ ;  $p = 0,026$ ). It shows that

the higher is the students' proficiency in L2 writing, the better they did on MARSİ test, in general, and on its categories.

Speaking of the MARSİ test, the general scores on this task correlated significantly with how much students enjoy English ( $r = 0,19$ ;  $p = 0,030$ ). It suggests that the more students seem to like English, the better were their scores on the inventory. General scores also correlated with the participants' amount of enjoyment during English classes ( $r = 0,24$ ;  $p = 0,007$ ), and it implies that the more students like their English classes, the higher were their scores on MARSİ. Additionally, this variable correlated with both written ( $r = 0,20$ ;  $p = 0,021$ ) and speaking proficiency ( $r = 0,27$ ;  $p = 0,002$ ) in the L2. It may demonstrate that the higher is the adolescents' proficiency in writing and speaking, the higher were their scores on MARSİ test. One last correlation was with participants' number of minutes listening to music in the L2 ( $r = 0,19$ ;  $p = 0,042$ ). Thus, it is possible to understand that the more students listen to music in English, the better were their scores on MARSİ test, in general.

Scores on global reading strategies, on its turn, correlated significantly with adolescents' amount of enjoyment during English classes ( $r = 0,26$ ;  $p = 0,003$ ), which indicates that the more students like their English classes, the more they use global reading strategies. It also happened with reading ( $r = 0,22$ ;  $p = 0,014$ ), writing ( $r = 0,20$ ;  $p = 0,023$ ), and speaking ( $r = 0,25$ ;  $p = 0,004$ ) self-assessed proficiencies in the L2, which suggests that the higher is the students' proficiency in these skills, the more they use global strategies. Another variable that correlated with this MARSİ subcategory was number of minutes watching TV in the L2 ( $r = 0,23$ ;  $p = 0,018$ ). Due to this result, it is possible to deduce that the more students watch TV in English, the more they tend to use global reading strategies.



Secondly, problem-solving reading strategies correlated with six different variables: i) English classes enjoyment ( $r = 0,24$ ;  $p = 0,006$ ), which points out that the more students seem to like their English classes, the more they use problem-solving strategies; self-rated proficiency in ii) L2 reading ( $r = 0,24$ ;  $p = 0,007$ ), iii) L2 writing ( $r = 0,20$ ;  $p = 0,024$ ), and iv) L2 speaking ( $r = 0,26$ ;  $p = 0,003$ ). Thus, it may be understood that the more proficient students perceive themselves in these skills, the more they use strategies from this category. There were also correlations with v) number of minutes listening to music in the L2 ( $r = 0,19$ ;  $p = 0,038$ ), and vi) number of minutes watching to TV in the L2 ( $r = 0,24$ ;  $p = 0,016$ ), which may demonstrate that the more adolescents listen to music and watch to TV in English, the more they tend to use problem-solving strategies.

Finally, support reading strategies correlated significantly with six variables as well. The first one was English learning enjoyment ( $r = 0,18$ ;  $p = 0,040$ ), which indicates that the more students like English, the more they use support reading strategies. Secondly, there was a correlation with how much they enjoy their English classes ( $r = 0,25$ ;  $p = 0,005$ ), and this outcome follows the same previous idea. Again, there were correlations with reading ( $r = 0,22$ ;  $p = 0,011$ ), writing ( $r = 0,20$ ;  $p = 0,026$ ) and speaking ( $r = 0,25$ ;  $p = 0,005$ ) proficiencies. It is reasonable to say then that the higher the students state that they are proficient in these skills, the more they use this MARSISubcategory of strategies. Support reading strategies correlated with the number of minutes that participants spend watching TV in English ( $r = 0,25$ ;  $p = 0,010$ ) as well, and it may suggest that the more students watch TV in their L2, the more they use this kind of strategy.

Ultimately, an additional information is worthy to be mentioned here: we obtained a mean for the participants' general scores on the *cloze* test, from both stages – pre and posttest.

Subsequently, we ran a correlational test using these values and the ones obtained from MARSI test. We wanted to observe whether there was a different relationship between students' performance on the *cloze* tests and their reported use of reading strategies before and after the instruction. If there was a relationship only in the posttest scores, then it would be possible to hypothesize that although the instruction did not affect students' reading comprehension scores, it might have influenced their use of reading strategies. However, such difference was not observed. The observed correlations were the same at both times. Because of that, we understood that the instruction did not alter students' use of reading strategies, as measured by the MARSI. This result, along with the previous ones, will be discussed in the next chapter.

## Chapter 6 – DISCUSSION

This study aimed at understanding how a pre-reading metacognitive strategy – skimming – would improve the reading performance of eighth and ninth graders from two public schools located in the South of Brazil. Contrary to expectations, the results of the statistical analysis did not reveal any significant effect of the training. In other words, the adolescents from both the control and experimental groups exhibited similar performance in the posttest. This suggests that participants in the experimental group may not have acquired the skills to effectively utilize the skimming metacognitive strategy. The observed lack of effect contradicts the previously discussed theoretical framework, which posited that reading comprehension could be enhanced through the application of reading strategies (Santos, 2013; Busby, 2018), including among a younger population (Castillo & Bonilla, 2014; Chen & Chen, 2015), and involving the use of skimming (Rusmiati & Ghafura, 2017).

This outcome may be attributed to the fact that skimming instruction was administered only once, lasting for a brief duration of 90 minutes with the experimental group. Previous research indicates that the effectiveness of reading strategies often requires multiple sessions. For instance, Meyer, Young, and Bartlett (1989) conducted an experiment involving young adults instructed on the text structure strategy, involving the analysis of top-level structures in a given text. They conducted five meetings, comprising workshops and specific reading and learning activities related to the strategy. Significant effects were observed after this extended training period. However, the authors noted that when the instruction was reduced to just three meetings, minimal effects were observed (Meyer, Young, & Bartlett, 1989; Schwartz, Mendoza, & Meyer,

2013). In the present study, skimming instruction was provided in a single session, potentially hindering the participants' ability to grasp the strategy adequately.

Similarly, Arêas da Luz Fontes et al. (2015) did not find an effect of strategy instruction with their participants. The authors conducted two experiments, aiming to verify whether a shorter version of the Text Structure Strategy (TSS) (Meyer, Young, & Bartlett, 1989) would work with two groups of participants. One group was composed by Brazilians that had Portuguese as L1 and were learning English as L2 (Experiment 1). The other group was composed by English monolinguals (Experiment 2). A two-hour session of TSS instruction was executed with both groups, but while in Experiment 1 participants completed the pre-test, testing and post-test in different days, in Experiment 2 they completed all sessions on the same day.

Results showed more robust improvements on recall of text structure by the Brazilian participants (who were instructed in their L1). On the other hand, the monolingual group did show significant differences after the instruction. According to the authors, a possible explanation for the lack of effect in the TSS training is similar to our study's: participants might have needed more time of training in order to domain the strategy properly, and more sessions to reduce cognitive load. In different words, the two-hour session might not have been enough for the monolingual group to grasp the training and learn how to use the reading strategy (Arêas da Luz Fontes et al., 2015).

A second reasonable justification for these results may be due to a quick conversation between the English teacher and one of the groups of participants during the pretest. When the researcher randomly delivered the texts to the participants and gave them instructions about the task, the main teacher said: "guys, do not forget about our classes". When asked about these classes, she said that she was referring to tips on how to read texts in English better, and not

necessarily skimming or other strategies. That was an unexpected event, and it might have activated previous memories about L2 reading among the students.

Another plausible explanation for the observed outcome could be the absence of silence during various segments of the experiment, coupled with unexpected events. These factors may have adversely affected participants' performance by diverting their attention during the *cloze* task. As documented in the field diary maintained throughout the research, instances of disruptions such as screams, intrusions, and other disturbing occurrences were noted.

Studies as the one conducted by Efendy and Sulisty (2019) have shown similar outcomes. They wanted to verify whether the set of support reading strategies were a predictor variable toward reading comprehension. Similar to the present study, the main hypothesis was not corroborated, and the authors did not find a significant relationship between the variables. They explain that, due to loud noise and the lack of commitment of the schools' staff, who frequently interrupted the experiment, participants' reading comprehension might have been hindered (Efendy & Sulisty, 2019).

In our study, most of these confounding variables occurred precisely on training days. At school A, there was a neighborhood house being remodeled during the time of the instruction. At school B, the room where the instruction was supposed to happen had just been painted. Due to it, there was a strong smell and participants had to be reallocated to a different place. These were a few events that took place during training sessions. More will be detailed on the limitations of the study section.

While no discernible effects of skimming instruction or time were identified, *post hoc* analyses revealed an influence of cognate quantity, genre, and an interaction between them. Firstly, a primary effect of cognate quantity was evident, indicating that texts containing a greater

number of cognates — words sharing orthography and meaning across languages — led to superior performance among participants in reading and completing the blanks. These findings align with previous studies referenced in this research, which propose that cognate words enhance reading in the L2 (Libben & Titone, 2009; Casaponsa et al., 2015; Cop et al., 2017; Van Assche, Brysbaert, & Duyck, 2020; Marian et al., 2022). This way, cognates are viewed as linguistic *bridges* across languages, affording direct access to word meanings (Li & Gollan, 2021).

Besides that, these findings are consistent with the principles of the BIA+ model (Dijkstra & Van Heuven, 2002; Toassi & Mota, 2015; Van Hell, 2019), which posits the existence of cognate facilitation. Another premise of the model is language non-selectivity, referring to the reader's inability to deactivate one language while reading in L1 or L2. As indicated in the literature review, both languages remain active during the reading process, providing the reader with a greater number of alternatives to choose from (Cop, Drieghe, & Duyck, 2015; Hopp, 2018; Van Assche, Brysbaert, & Duyck, 2020). Ultimately, cognate facilitation in longer texts, as observed in this experiment, is consistent with findings from past studies as well, including those by Cop et al. (2016) and DeSouza (2008).

Cognate processing relies on bottom-up processes, which were discussed in the theoretical background. A bottom-up approach, similar to what the name proposes, goes from the text to the reader, i.e., in an ascending movement (Kato, 1999). The text is explored in its minimal aspects, in a linear way, in which letters and phonemes are recognized, combined, and form words, in a gradual action of text discovery (Perfetti, 1999; Perfetti, 2007; Gough, 1972 cited by Kleiman, 2011). On the contrary of the top-down approach, which involves the attribution of meaning by the reader according to their previous knowledge (Kato, 1999),

cognate recognition and processing is a basic bottom-up process: the reader encounters the input, analyzes the word structure, and activates similar forms and meanings across languages (van Assche, Brysbaert, & Duyck, 2020). Thus, since the orthography, semantics, and phonology of cognates match between codes, lexical access is more rapid, and thus comprehension is facilitated (Lijewska, 2020).

In the *post hoc* analysis, a significant effect of text genre was observed, with news articles processed more accurately during the *cloze* test compared to fables. Consequently, it is possible that participants have demonstrated greater text competence and text awareness (Pereira & Scliar-Cabral, 2012) in the news articles as opposed to fables. Interestingly, the prediction regarding genre differences was contrary to the observed results; fables were anticipated to be processed more efficiently than news articles. This anticipation stemmed from the prevalence of fables as educational materials to be used in schools (Baretta & Pereira, 2019). The structural aspects of this genre, such as animals being the main characters, repeated words, consistency, easier syntax, higher level of narrativity, and a moral at the end of the story (Saadatnia, Ketabi, & Tavakoli, 2017; Denton et al., 2015), should have contributed to participants' prior knowledge (Smith, 2003; Alliende & Condemarín, 2005; Paiva, 2011; Souza & Garcia, 2012).

Despite of these characteristics, the news articles texts were filled out more accurately. One reasonable justification for it may come from the aforementioned idea that fables are school genres. Thus, they tend to be read in the classrooms, but maybe *only* in that space. On the other hand, news articles are almost everywhere: newspapers, television, and especially social networks, such as Instagram and X (former Twitter). Both the Questionnaire of Reading Habits, and Interest in English Learning and the Language History Questionnaire (Scholl & Finger, 2013) bring insights to this issue. According to participants' responses to these instruments, they

were mostly inclined to read and consume contents on the internet. Data from the Questionnaire of Reading Habits, and Interest in English Learning (QHLILI) highlighted how teenagers (and their parents) are linked to social media, and the Language History Questionnaire (QHL) shed light on how adolescents learn English through online tools. This information may explain the observed results, at least partially.

Another plausible interpretation for this outcome is participants' prior knowledge. Participants likely possessed a broader base of previous knowledge on the theme of the news articles, which centered around music. Given that they were eighth and ninth graders, their existing knowledge might have facilitated their comprehension of the texts. Again, data from the Language History Questionnaire (Scholl & Finger, 2013) provides additional details: participants reported spending an average of 108 minutes (one hour and forty-eight minutes) per day listening to music in their L1 ( $SD = 140.02$ ) and 161 minutes (two hours and forty-one minutes) per day in their L2 ( $SD = 196.80$ ). Collectively, it can be inferred that music constitutes a substantial part of their daily routine (18.68%).

In this sense, it is possible to say that their comprehension of news articles was driven by a more top-down process. Again, this approach presupposes that the reader utilizes their previous knowledge to fill in gaps of understanding (Alliende & Condemarin, 2005). Then, it is considered a descending movement, in which the reader's background experiences with language is a mechanism to overcome possible reading challenges (Kato, 1999). Therefore, it is considerable that the participants relied on top-down processes, i.e., on their background knowledge of music to better understand the news articles.

In essence, their apparent enjoyment of listening to music may have heightened their motivation to read about musicians. Then, the probable experience in reading news articles about



music, in addition to their motivation to read about music, might have created a more familiar and convenient context of reading for the participants. Consequently, their heightened interest and knowledge in news articles compared to fables might have bolstered their text competence and awareness. Text competence, as previously mentioned, is a skill developed by readers when they are exposed to different texts genres; so, it is related to genre familiarity (Kleiman, 2008). Text awareness, in its turn, is a skill developed when the reader analyzes different types of genres and thus becomes aware of their structure and constituents (Pereira & Scliar-Cabral, 2012). In sum, it is reasonable that, during reading in the second language, participants might have used their familiarity with news about music (text competence). In addition, they might have been more motivated to analyze this genre (text awareness), compared to the fables, resulting in higher scores for news articles.

Motivation for reading was one of the topics approached by Rosso and Arêas da Luz Fontes (2023)<sup>17</sup>, in a study with teenagers and their reading habits. They recruited 161 eighth and ninth graders learners of English as an L2 to fill in questionnaires on reading motivation, reading habits, and reading strategies in their L1 and L2. The main goal was to verify whether there was an association between their motivation to read, the amount of reading, and their scores on MARSII test (Mokhtari and Reichard, 2002). The researchers discuss the idea of intrinsic and extrinsic motivation based on Schiefele and Löweke (2017)'s work.

These two types of motivation are related to reading for enjoyment and reading as a useful tool for personal success. According to these last authors, intrinsic motivation is linked to the reader's pleasure and curiosity, so it is associated to internal factors. Extrinsic motivation, in its turn, is based on external factors, such as acknowledgement and assessment (Schiefele &

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<sup>17</sup> This article is derived from the present experiment. Data from the three questionnaires addressed here were also analyzed but focusing on different research objectives.

Löweke, 2017). A good example of these motivation aspects would be a student who reads for their own enjoyment and a student who reads to pass an important exam.

Rosso and Arêas da Luz Fontes (2023) found that the more students like to read, the more they are strategic, in both L1 and L2. In other words, motivation is a key factor for strategic reading and reading improvement. In the case of the present study, considering that the participants were more motivated to read the news articles since they had a more captivating theme, it is plausible to understand that they drove more attention to these genres and were prone to have better scores on the news. In sum, we suggest that participants were more intrinsically motivated to read texts about music, compared to the fables (Rosso & Arêas da Luz Fontes, 2023; Schiefele & Löweke, 2017).

This genre discussion may also be related to the mental representations formed by participants based on the text genres. According to the Construction-Integration Model (CI) (Kintsch & Van Dijk, 1978; Kintsch, 1988; Kintsch & Rawson, 2005), readers construct a set of representations from the text and, in sequential stages, develop a mental model that interacts with and integrates their background knowledge to achieve comprehension. It is conceivable that, because of the reasons listed above, the news articles generated more robust and reliable mental representations in the participants' minds. As a result, adolescents might have employed a more effective situation model of the news article texts to complete the *cloze* task, compared to the fables.

Similar to our findings, Saadatnia, Ketabi, and Tavakoli (2017) also obtained varied results concerning genre processing in their study. Their research aimed to investigate the effect of genre (expository text and narrative text) on inference-making in reading English as L2. In contrast to their anticipated significant difference, indicating that narrative text would be easier

for producing inferences, no such effect was found. The authors suggested that differences in strategies and learning styles could have influenced their results (Saadatnia, Ketabi, & Tavakoli, 2017). In our case, increased previous knowledge and motivation for reading the news could have elevated performance on the news article more than on the fables. Since content words from all texts were controlled for frequency (and leveled according to this index), previous knowledge of music and motivation may explain this observed outcome.

Regarding the interaction, the analysis was conducted both within and between genres. Within-genre analysis revealed a cognate quantity effect for both genres. It was observed that texts with more cognates were processed more accurately in both fables and news. Once again, cognates acted as facilitators (Lauro & Schwartz, 2017; Lijewska, 2020), providing cues for readers in the two studied genres.

In the same vein, the analysis between genres also yielded surprising and intriguing results. This test examined participants' performance when texts were categorized by the quantity of cognates. Results indicated a statistically significant difference when there were fewer cognates (specifically, 6 cognate words). In this scenario, it was observed that students filled in the gaps more accurately in the news articles. Regarding texts with a greater number of cognate words (15), no statistical difference was encountered. It means that for both fables and news participants had similar performances.

This finding is noteworthy, suggesting that when there is a higher number of cognate words in the text composition, the genre may become less influential. In other words, a substantial number of cognates may serve to equalize difficulty levels among different text genres or even eliminate genre-based differences. In this sense, it is important to reinforce that this phenomenon is related to the bottom-up approach (Kleiman, 2008) of reading. Processing

cognate words demands identification, activation, and combination of minimal elements that compose words, such as letters (form) and phonemes (sound), as well as considers the level of overlapping between words (Dijkstra, Miwa, Brummelhuis, Sapelli, & Baayen, 2010). The reader, thus, recognizes similarities in the different word levels, accesses meanings in a more facilitated way, and is provided of a shortcut to comprehension (Lemhöfer, Huestegge, & Mulder, 2018; Lijewska, 2020). That may possibly be the case for both genres that contained more cognates in their composition. Participants performed equally in the fables and in the news articles, suggesting that they used bottom-up processes to recognize word similarities and reach understanding. Unfortunately, limited research has been conducted on the comparison of genres and cognates. More studies based on this relationship could contribute to explaining the observed outcomes by comparing number of cognates embedded in different text genres during L2 reading.

As far as we know, no studies have addressed this topic yet. Most experiments that deal with genre and cognates focus only on the cognate effect within a specific genre. One such study is the investigation by Davis, Bowan, and Kaushanskaya (2018). Their aim was to examine whether the presence of cognate words would facilitate reading in the context of short stories in English. Participants, including bilinguals (Spanish - English) and monolinguals (English) children, read aloud two different stories — one with cognates in its composition and the other without. Surprisingly, the authors found that bilinguals made more errors when reading the short story containing cognates compared to the story without such words. They postulate that encountering similar words across languages might have impeded fluency, as both languages were activated simultaneously (Davis, Bowan, & Kaushanskaya, 2018). It is important to note that this result emerged from an experiment involving only one text genre (short story), and

genre analysis was not the primary focus of the study. Thereby, although their outcomes were contrary to ours, i.e., they found cognate interference, that was an interesting research initiative, which is expected to be widely explored.

Finally, the analysis of the questionnaires showed multiple significant correlations between the studied variables. We tested the association of several items, such as the scores on the MARSII test, and specific data acquired from both reading habits and language history questionnaires. Scores in the *cloze* test were also observed, in order to verify whether there was a relationship with the values from the questionnaires.

In these analyses, some specific variables correlated with many others. It may indicate that these were more strongly associated with students' L2 reading performance. About these variables, it is interesting to note that they seem to be interconnected: self-assessment of L2 reading proficiency, reading enjoyment, English enjoyment, and English classes enjoyment. Thus, the words *reading*, *English*, and *enjoyment* are a common ground for the results of the correlational analysis conducted.

L2 reading proficiency and reading enjoyment are variables one would already expect that may influence general students' performance during L2 reading activities. As previously stated, motivation is one of the variables that increase readers' use of strategies and reading performance (Rosso & Arêas da Luz Fontes, 2023). And motivation is also the background of the other two variables involved in the multiple correlations observed.

Motivation for learning English showed to be an important factor to develop L2 reading. It was anticipated in this study through the words of Schiefele and Löweke (2017), who highlighted that both intrinsic and extrinsic motivation can be involved in the readers' performance. In other words, participants might have used of their intrinsic motivation for

learning and reading in English (personal enjoyment), or their extrinsic motivation (awareness of the importance of the language for different purposes), during the reading activities (Schiefele & Löweke, 2017; Rosso & Arêas da Luz Fontes, 2023).

When it comes to English classes enjoyment, studies such as the one developed by Dewaele and McIntyre (2016) have shed light on this topic in the last years. These authors posit that there are different dimensions within foreign class enjoyment, and one of them is the social. They argue that a key factor for feeling enjoyment is the engagement among people during the English/foreign class. Another important factor is the positive atmosphere, which may be created by students and the teacher (Dewaele & McIntyre, 2016). The teachers are a fundamental element in this discussion, and they may interfere in the students' motivation during classes. These professionals have the power to create a good environment in the L2 classroom for an adequate learning (Paiva, 2011; Chen, Dewaele, & Zhang, 2022). And this power may have been one of the factors that influenced students' performances during the *cloze* test.

Finally, language scientists have made substantial efforts to enhance our understanding of how L2 reading happens, and how a bilingual mental lexicon operates. They have studied how languages interact during reading, and how words are activated when an individual is proficient in more than one language. However, as previously stated, there remains a paucity of research on the processing of cognate words and their impact on reading across different text genres. Existing studies tend to examine the effects of these variables independently or in interaction with other factors. As mentioned earlier, research investigating the simultaneous influence of text genres and cognates is limited, or even nonexistent. This study sought to address this gap in the literature.

## Chapter 7 - CONCLUSION AND PEDAGOGICAL IMPLICATIONS

This study aimed at understanding how a pre-reading metacognitive strategy – skimming – would improve the reading performance of eighth and ninth graders from two public schools located in the South of Brazil. It was also an objective to observe whether there was a genre processing effect, since the texts used in the experiment comprised two different structures: news article and fable. Finally, another goal was to investigate the influence of more and less cognates in the texts' composition. We wanted to examine a possible cognate facilitation effect, i.e., whether participants would perform better on the texts with more cognates ( $n = 15$ ), compared to the texts with less cognates ( $n = 06$ ), once these words provide faster access to meaning (Lijewska, 2020; Marian et al., 2022). We found expected, unexpected, surprising, and interesting results.

It was expected a cognate effect, in which texts that contained more words that share form, sound and meaning would be processed more easily. As predicted in our hypothesis, we found such effect. These findings align with numerous previous studies in the field. The cognate effect is a well-established phenomenon in psycholinguistic experiments, and it has been consistently observed in various studies (Lauro & Schwartz, 2019). While its familiarity does not diminish its importance in language studies, our study contributes valuable new evidence to the existing body of knowledge on cognate processing. We add to the existent literature by showing a cognate effect in longer texts, which is still less explored in the area. We also add to the literature by showing differences in processing that are due to the quantity of cognates in a text. While most studied compare cognate to non-cognate conditions, we manipulated the amount to

cognates present in texts of different genre and demonstrated facilitation when texts had more words that were similar across languages.

Still about cognate facilitation, we found that the news articles and the fables that contained more cognate words embedded in the texts did not differ in terms of students' performance, while a genre difference was found for texts with less cognates. In this sense, it is important to highlight one more time that genres have different levels of processing. They are composed by distinct syntax patterns, vocabulary, levels of narrativity, objectives (Wolfe, 2005; Denton et al., 2015; Kraal et al., 2017), and even demand distinct brain circuitry (Aboud et al., 2019). Therefore, we found that cognates, when presented in a higher number within a text, may balance those levels across genres.

In sum, it is possible to state that: i) news articles and fables were different in all the previously mentioned aspects; ii) due to that, they demanded distinct cognitive resources, such as background knowledge, text awareness and competence (Pereira & Seliar-Cabral, 2012), to be understood; iii) those texts contained 15 cognates each, which were disposed throughout the texts; iv) participants read those texts and scored similarly in them during the *cloze* test; v) because of the lack of a significant effect in the more cognate condition and the difference in the less cognate condition, we propose that cognates attenuate top-down processes involved in reading by making students focus on more bottom-up features; vi) in turn, the distinct cognitive resources required for the understanding of the two genres are equalized. Those were the interesting (and surprising) results, which demand more studies in order to better comprehend this outcome.

It is important, thereby, to reflect on these results and what are their implications for the classroom setting. In recent years, studies have highlighted the beneficial impact of incorporating



cognate words into language classes, particularly in the context of L2 reading development (Garcia, Sacco, & Guerrero-Arias, 2020). While it is recognized that encountering cognate words during reading automatically activates both languages, which may aid comprehension, research has also revealed that explicit instruction on cognate words can further enhance text awareness and comprehension (Proctor & Mo, 2012; Hernández, Montelongo, & Herter, 2016; Garcia, Sacco, & Guerrero-Arias, 2020). This perspective suggests that instructing students about cognates may not only contribute to improved reading skills but also proficiency in spelling and writing since it promotes word analysis. By emphasizing the role of cognates in language instruction, educators can empower students to become more adept readers and enhance their overall language abilities.

Concerning text genres, it was encountered that participants were more accurate in the news articles compared to the fables. It was a surprising finding, once fables are provided of higher narrativity levels, which makes them more accessible to read (McNamara, Ozuru, & Floyd, 2011). Fables also contain repeated words, a more consistent syntax pattern, and their vocabulary generally is related to nowadays routines and peoples' lives (Saadatnia, Ketabi, & Tavakoli, 2017). Readers tend to face more challenges during reading of expositive texts, once they have a more complex syntax structure (Denton et al., 2015). Even though fables are mainly encountered in the classroom environment (Neves & Borges, 2018; Baretta & Pereira, 2019), where this study was executed, participants performed better in the expositive text, the news article.

As mentioned in the discussion, greater previous knowledge, and motivation for reading the news could have bolstered participants' performance on the news article more than on the

fables. Music must have been a more familiar and enjoyable theme for the adolescents to read. Plus, since participants were teenagers, reading fables might have been seen as a boring activity.

Although results were surprising (and unexpected), it is worthy stressing the importance of working with different kinds of text genres during L2 classes. As pointed in the theoretical background, a comprehensive approach that incorporates a variety of texts in the L2 classroom can help students not only observe and be aware of the various text formats around them but also understand that written language has specific nuances that must be comprehended to become a competent reader (Kato, 1999; Kleiman, 2008; Pereira & Scliar-Cabral, 2012).

In different terms, diversifying text genres is a valuable resource to implement in L2 classes, as evidenced by this study showcasing how genres are processed in distinct ways. Although the expositive text (news article) unexpectedly yielded the best performance during the *cloze* test, the importance of engaging with various text formats should not be overlooked. As previously mentioned in this study, different text genres require different levels of processing (Pereira & Scliar-Cabral, 2012; Kraal et al., 2017), fostering enhanced text competence and awareness. The unique structures, specific vocabulary, and varied goals inherent in different genres have the potential to improve how readers perceive and comprehend the material. In essence, they can shape and enhance how students construct mental representations of the content being read (Kintsch & Van Dijk, 1978). Thus, bringing diverse text genres into the L2 classroom — by offering reading materials with distinct aspects, themes, sizes, and objectives — can turn students into good text analyzers, as well activate their prior knowledge, making them more aware and competent readers (Kleiman, 2008; Paiva, 2010). This approach not only enriches the learning experience but also contributes to the development of a broader set of language skills and cognitive abilities among L2 learners.

Finally, an unexpected (and again surprising) result was the one about the skimming strategy. We did not find an effect of instruction, suggesting that participants did not learn the strategy properly, or did not know how to use it during the *cloze* test. Despite not identifying a significant effect, it remains pertinent to underscore the relevance of incorporating teaching and learning reading strategies, including skimming, in L2 classes, and across various subjects. Reading strategies fall within the purview of pedagogical tools recommended for enhancing reading development (Santos, 2013; Brasil, 2017). Although our study did not reveal a noteworthy impact on students' achievement, prior research has affirmed the essential role of teaching and learning metacognitive reading strategies in improving reading outcomes in the L2 classroom.

Experiments presented in this study (Endley, 2016; Busby, 2018 - with young adults; Castillo & Bonilla, 2014; Chen & Chen, 2015; Brevik, 2019 - with teenagers), among other studies have consistently demonstrated the utility of reading strategies as effective activities in the L2 classroom. Studies as the Fitriasia et al. (2015)'s emphasize pedagogical implications of exploring these tools, advocating for increased emphasis on teaching reading strategies during English classes. They argued that such strategies provide students with opportunities to attain a more sophisticated and profound understanding of the text. This is a crucial discussion, which reflects not only in the participants of that study but reverberates over the educational community around the world.

Thereby, one of the motivations for undertaking this study was to bridge the realms of psycholinguistics and education. One of the fundamental aims of psycholinguistic researchers is to comprehend how language(s) are processed in the human mind, often conducting studies in controlled laboratory settings. In the context of this dissertation, schools served as the laboratory,

providing a unique opportunity to observe how language was being learned and how second language (L2) reading was naturally developing in the real-world environment of the participants. This approach allowed for a more nuanced understanding of the intricacies of language acquisition and reading development within an educational context, offering valuable insights that contribute to both psycholinguistic theory and educational practice.

According to Maia, Garcia and Fernandes (2019), one effective approach to promote psycholinguistics in the school environment is through the cultivation of metacognition. This concept, extensively discussed in this research, encompasses the ability to plan, control, and (re)organize one's own learning (Palincsar & Brown, 1982; Afflerbach et al., 2013; Minguela, Solé, & Pieschl, 2015; Woelfer, Tomitch, & Procailo, 2019). Consequently, the teaching and learning of reading strategies emerge as valuable mechanisms to instill metacognition among students. By developing an awareness of their own reading processes in a second language (L2), students can monitor comprehension steps, analyze vocabulary cues (such as cognates), address gaps in understanding, and, as a result, become strategic readers across various genres. This emphasis on metacognition and reading strategies may contribute not only to the enhancement of language skills but also to the development of critical thinking and effective learning strategies in the academic setting.

Hence, schools serve as arenas for transforming emerging readers into proficient and successful readers, whether in English or any other field of knowledge. It is important for psycholinguistics and education to collaborate, since they have elements that, combined, may enhance educational indicators, including measures like the IDEB. (Meta)cognition and reading are examples of these elements that may cooperate, and classrooms may function as effective laboratories. Through this collaborative effort, educators, researchers, and policymakers can

work towards creating an environment that not only fosters language proficiency but also contributes to overall academic success, ultimately shaping a brighter future for students and the educational landscape.

In conclusion, our study had one of its hypotheses corroborated. However, it does not mean that results were not relevant, or did not add important insights to current literature. Investigating the articulation of strategic reading in the L2, cognate words, and different genres was a novel initiative within science production. It has now opened new research opportunities, gaps to be filled in, themes to be studied, and relationships to be further explored. This dissertation brought necessary remarks, especially to the researchers who, like us, want to develop a stronger connection between psycholinguistics and education.

## Chapter 8 - LIMITATIONS OF THE STUDY AND FUTURE DIRECTIONS

As evident from the methodology section, we made efforts to control for various confounding variables that could potentially influence the outcomes of this study. For instance, the texts used in the experiment were meticulously leveled based on factors such as length, word frequency, and the orthographic similarity of the cognate words. However, it is acknowledged that controlling for every variable that might impact research outcomes is a challenging endeavor. Consequently, there are several limitations that could have influenced the results of this study. We will first discuss those related to the school environment, followed by limitations associated with the research methods employed.

Schools are inherently dynamic and complex environments, encompassing various subjects, diverse responsibilities, and a range of attitudes. As documented in the field diary, there were instances where participants may have experienced difficulty maintaining concentration while completing the *cloze* test, as well as paying attention to the instruction. For instance, on October 8th, 2021, during the training session with one of the experimental groups, external noise disturbance occurred. One of the school neighbors was undergoing renovations, resulting in participants being exposed to sounds such as hammering and the noise of a stone crusher. While the sounds were not excessively loud, they might have posed a challenge to the participants' attention, particularly during the researcher's explanations. This external factor represents a limitation associated with the school environment and underscores the complex nature of conducting research in such settings.

Another limitation related to the environment was the occurrence of two interruptions. One incident took place during one of the training sessions when, despite clear instructions to avoid entering the classroom during the experiment, a teacher came in to deliver a message to

one of the students. The second interruption occurred during the posttest in the second school, again for the same reason. These unplanned interruptions can introduce variability in the experimental conditions, by creating distractions, and potentially impact participants' focus and performance. Despite efforts to create a controlled environment, the nature of school settings sometimes introduces unforeseen challenges.

Two additional limitations associated with the study's location include non-scheduled events (a surprise Halloween party and a council meeting) and technical issues with the media used to project training materials for the participants. The researcher had brought her own projector in anticipation of potential technical problems, and the explanation of the skimming strategy was successfully delivered. However, the extent to which this technical issue might have affected students' attention during the skimming strategy explanation is uncertain. Unplanned events and technical challenges are inherent aspects of conducting research in real-world educational settings, and while efforts were made to mitigate their impact, they represent constraints on the study's internal validity.

Regarding the methods, there are a few limitations worth noting. The first limitation is associated with the theme of the news articles, which centered around music. While efforts were made to control for the difficulty level of all texts and balance fables and news, choosing music as the topic for the expository text might have introduced a bias. As discussed in the discussion, music seems to be a significant part of the participants' daily lives. According to the Language History Questionnaire (Scholl & Finger, 2013), adolescents reported spending several minutes a day listening to music. This suggests that they not only had prior knowledge of the topic but also might have been more motivated to read news articles related to music compared to fables. This

potential difference in motivation could have influenced participants' engagement and performance in the reading tasks.

Motivation for reading is a well-explored topic in research, with scholars like Kim (2011), Ölmez (2015), and Rosso and Arêas da Luz Fontes (2023) contributing to the understanding of reading motivation in both first language (L1) and second language (L2) contexts across various countries and cultures. Ölmez's (2015) study focused on students in Turkey, Kim's (2011) research involved students from South Korea, and the work by Rosso and Arêas da Luz Fontes (2023) investigated reading motivation among Brazilian students. These studies shed light on the diverse factors influencing reading motivation and contribute to a broader understanding of how cultural and contextual elements may impact students' engagement with reading materials.

In the context of the present study, where all texts were in English, it can be suggested that intrinsic motivation (Schiefele & Löweke, 2017) played a significant role in driving students to perform better on the news articles. Reading about music may have been more enjoyable, engaging, and triggered greater curiosity among adolescents compared to the fable, which might have contributed to differences in performance between the two text genres. Since fables consider animals as characters and have a more childish approach, the participants could even have understood the texts as boring.

The last methodological limitation pertains to the test administered to the participants — the *cloze* test. The *cloze* test is designed to assess reading processing and observe individuals' capacity to produce inferences and make word decisions in a given gapped text (Taylor, 1953). While our study aimed to observe reading processing, and producing inferences is a consequence of applying reading strategies, the primary goal was to assess text comprehension through



skimming. In this context, a different task might be more accurate for observing text comprehension and/or recall, such as the implementation and analysis of questions and answers based on the text genres. Using a combination of tasks that specifically target skimming and comprehension could provide a more comprehensive understanding of the participants' reading abilities.

For future studies, we recommend exploring different tasks to monitor reading processing and comprehension. One promising venue for investigating reading processing and comprehension is the use of eye-tracking technology. Eye-tracking allows real-time observation of reading phenomena and provides measures such as first fixation duration, gaze duration, and total reading times (see Rayner, 1998, for a review). Exploring metacognitive reading strategies, including skimming, through eye-tracking could be a valuable and insightful area for further exploration. Implementing such technologies may offer a more fine-grained understanding of how readers engage with texts and apply various strategies during the reading process.

An additional suggestion for future research is to explore different text genres. While this study focused on news and fables, there are various genres in society, each with distinct purposes, structures, lengths, and specific vocabularies (Pereira & Scliar-Cabral, 2012). Therefore, the selection of texts should be made carefully, considering these differences. Comparing various text formats offers an opportunity to examine the different levels of reading processing across genres.

Again, classrooms are suitable places to conduct this kind of research, since they provide a space to promote and enhance students' reading competence — an essential skill in today's educational landscape. Investigating how students engage with diverse genres may contribute

valuable insights to the development of effective reading strategies and instructional approaches.

Importantly, it may improve the indexes mentioned in this study, such as PISA and IDEB.

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**LIST OF APPENDICES**

**APPENDIX I – Carta de Anuência da Secretaria Municipal de Educação da cidade de Criciúma (SC)**



**Município de Criciúma**  
Secretaria Municipal de Educação

**CARTA DE AUTORIZAÇÃO**

Eu, Cristiane Maccari Uliana Fretta, Secretária Municipal de Educação de Criciúma, autorizo a professora mestra Aline Casagrande Rosso, e a professora doutora Ana Beatriz Arêas da Luz Fontes, do Programa de Pós-Graduação em Letras da Universidade Federal do Rio Grande do Sul (UFRGS), a realizar pesquisa com os alunos do 6º ano e do 7º ano (Ensino Fundamental - Anos Finais) da Escola Municipal de Ensino Fundamental José Rosso. O trabalho abordará questões de ordem cognitiva, como capacidade de entender textos em língua inglesa.

08/09/2020

Data

MUNICÍPIO DE CRICIÚMA  
Secretaria Municipal de Educação  
Cristiane Maccari Uliana Fretta  
Secretária Municipal de Educação  
Matr. 54591

Assinatura

**APPENDIX II – Carta de Anuência da Direção da Escola Municipal de Ensino  
Fundamental José Rosso**



Prefeitura Municipal de Criciúma  
Secretaria Municipal de Educação  
EMEF JOSÉ ROSSO  
CRICIÚMA – SC

**CARTA DE AUTORIZAÇÃO**

Eu, Simone Scotti dos Santos, Diretora da EMEF José Rosso, Unidade de Ensino pública de Rede Municipal de Educação de Criciúma – SC, autorizo a doutoranda em Letras pela UFRGS, Aline Casagrande Rosso a realizar sua pesquisa de doutorado nesta escola escola, com os sextos e sétimos anos do Ensino Fundamehtal.

Criciúma SC, 09 de setembro de 2020.

  
\_\_\_\_\_  
Simone Scotti dos Santos  
Diretora E.M.E.I.E.F. José Rosso  
Matricula 54.823

**APENDIX III – Carta de Anuência da Direção da Escola de Educação Básica Professor  
Pedro Da Ré (SC)**



**ESTADO DE SANTA CATARINA  
SECRETARIA DE ESTADO DE EDUCAÇÃO  
ESCOLA DE EDUCAÇÃO BÁSICA PROFESSOR PEDRO DA RÉ  
MINA DO MATO – CRICIÚMA**

**CARTA DE AUTORIZAÇÃO**

Eu, Liliane Manente Ferreira Gottems, diretora da Escola de Educação Básica Professor Pedro Da Ré, autorizo a professora doutoranda Aline Casagrande Rosso, bem como a professora orientadora Ana Beatriz Arêas da Luz Fontes, do Programa de Pós-Graduação em Letras da Universidade Federal do Rio Grande do Sul (UFRGS), a realizar pesquisa com os alunos dos 8<sup>o</sup> e 9<sup>o</sup> anos do Ensino Fundamental (Anos Finais). O trabalho abordará questões de ordem cognitiva, como a capacidade de entender textos em língua inglesa.

08/03/2022

Data

  
 Liliane Manente Ferreira Gottems  
 Diretora da Escola  
 Matr.: 304295-8-03

Assinatura

**SECRETARIA DA EDUCAÇÃO**  
**21ª - Gerência de Educação**  
 Escola de Educação Básica Professor Pedro da Ré  
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 Portaria de Transformação E nº 001 de 08.10.2001  
 Mantida pelo Governo Estadual  
 Sistema Estadual de Ensino  
 MINA DO MATO • CRICIÚMA • SC



**APPENDIX IV – TCLE****UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO**

Estamos convidando o(a) seu(sua) filho(a) para participar de uma pesquisa na escola. Esta pesquisa é sobre leitura em inglês usando algumas estratégias. Estas estratégias buscam melhorar o entendimento do que está escrito, e ajudam na aprendizagem dos alunos. Como parte dessa pesquisa, iremos realizar um treinamento sobre leitura em língua inglesa com as crianças, e também utilizar tarefas de leitura e escrita com os alunos. Além disso, os alunos também vão realizar um questionário sobre hábitos de leitura e contato com a língua inglesa. Essas atividades duram, mais ou menos, de cinquenta minutos a uma hora. O objetivo é observar se os alunos, após o treinamento, colocam em prática a estratégia durante a leitura de textos em inglês. O treinamento realizado trará benefícios às crianças, pois melhorará o desempenho delas na leitura da segunda língua. Podem ocorrer momentos de cansaço, e haverá uma pausa para descanso se isso acontecer. Os alunos ficarão livres para sair do estudo a qualquer momento. Garantimos que os dados individuais do(a) seu(sua) filho(a) não serão divulgados. Ele(a) receberá um número de identificação, para que o seu nome não seja utilizado na pesquisa. As respostas dadas por ele(a) serão analisadas como parte de um grupo, e esses dados serão usados na elaboração da tese, como também na construção de artigos científicos. Reforçamos que a identidade deles não será revelada, sob nenhuma hipótese. Os dados recolhidos depois da pesquisa terminada serão guardados em um armário chaveado, por, no mínimo, cinco anos, e só terão acesso a esses materiais a pesquisadora e sua orientadora. Quando a pesquisa for finalizada, os resultados serão compartilhados com os alunos e com quem mais demonstrar interesse. Qualquer dúvida, você pode entrar em contato pelo e-mail [prof.alinerosso@gmail.com](mailto:prof.alinerosso@gmail.com), ou pelo celular: (48) 99901-3922 (doutoranda Aline) e

[ana.fontes@ufrgs.br](mailto:ana.fontes@ufrgs.br), ou pelo telefone: (51) 3308-6689 (orientadora Ana Beatriz). Você também pode consultar o Comitê de Ética em Pesquisa da Universidade Federal do Rio Grande do Sul (UFRGS) pelos contatos: (51) 3308-3738 e [etica@propesq.ufrgs.br](mailto:etica@propesq.ufrgs.br). Em caso de consulta presencial, o endereço é: Prédio da Reitoria – 2º andar – Campus Central, que fica localizado na Avenida Paulo Gama, nº 110 – CEP: 90040-060 – Porto Alegre, RS. Os dias e horários de atendimento do Comitê são: de segunda a sexta-feira, das 08:00 às 12:00 e das 14:00 às 18:00.

Ao assinar este termo, você mostra que entendeu e está de acordo com o que foi explicado neste documento. Dessa forma, você está consentindo que seu filho(a) participe do nosso estudo. Você vai receber uma cópia assinada pela doutoranda e sua orientadora para consulta no futuro.

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Data

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Assinatura do pai, mãe e/ou responsável

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Aline Casagrande Rosso (doutoranda) Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes (orientadora)

**APPENDIX V – TALE****UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**TERMO DE ASSENTIMENTO LIVRE E ESCLARECIDO**

Estamos convidando você para participar de uma pesquisa na escola. Esta pesquisa é sobre leitura em inglês usando algumas estratégias. Estas estratégias buscam melhorar o entendimento do que está escrito, e vão ajudar na sua aprendizagem. Como parte dessa pesquisa, iremos realizar um treinamento sobre leitura em língua inglesa, e também trabalhar tarefas de leitura e escrita com você. Além disso, você também vai realizar um questionário sobre hábitos de leitura e contato com a língua inglesa. Essas atividades duram, mais ou menos, de cinquenta minutos a uma hora. O treinamento realizado trará benefícios a você, pois melhorará o seu desempenho na leitura da segunda língua. Podem ocorrer momentos de cansaço, e haverá uma pausa para descanso se isso acontecer. Você ficará livre para sair do estudo a qualquer momento. Garantimos que os seus dados individuais não serão divulgados. Você receberá um número de identificação, para que o seu nome não seja utilizado na pesquisa. As suas respostas serão analisadas como parte de um grupo, e esses dados serão usados na elaboração da tese, como também na construção de artigos científicos. Os dados recolhidos depois da pesquisa terminada serão guardados em um armário chaveado, por, no mínimo, cinco anos, e só terão acesso a esses materiais a pesquisadora e sua orientadora. Quando a pesquisa for finalizada, os resultados serão compartilhados com a sua turma e com quem mais demonstrar interesse.

Por isso, se você entendeu a mensagem acima, e gostaria de participar desta pesquisa, assinale:

Eu aceito participar desta pesquisa.

Eu não aceito participar desta pesquisa.

**APPENDIX VI – Roteiro de conversa com os participantes da pesquisa****UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**ROTEIRO DE CONVERSA COM AS TURMAS DE PARTICIPANTES DA PESQUISA**

(Entrada na sala)

*Bom dia, pessoal! Tudo bem com vocês?*

(Pausa para resposta dos alunos)

*Vocês não me conhecem, então eu vou me apresentar. Eu me chamo Aline, e, assim como a teacher Karol, eu também sou professora de inglês. Nós, professoras, sempre estamos buscando uma maneira de aprender mais e melhor. Eu estou estudando na UFRGS, que é a Universidade Federal do Rio Grande do Sul. Ela fica lá em Porto Alegre. Eu estou fazendo um doutorado, que é uma etapa de estudos bem importante. Estou estudando e pesquisando sobre leitura em inglês, que é um assunto muito interessante, e que eu gosto bastante. E o que eu quero conversar com vocês hoje é sobre exatamente isso, os meus estudos. Eu gostaria de convidar vocês para participarem da minha pesquisa. Eu vou explicar direitinho, e depois, quem tiver alguma dúvida, pode me perguntar, OK?*

(Pausa para resposta)

*Bom, essa minha pesquisa é sobre o que eu falei com vocês, sobre leitura em inglês. Ela tem quatro etapas. A primeira é o preenchimento de dois questionários, que é para eu conhecer um pouquinho mais sobre vocês, as suas rotinas de estudo e as línguas que vocês conhecem. A segunda vai ser o seguinte: eu vou pedir para que vocês leiam alguns textos e façam algumas atividades. Os textos não são muito longos, e as atividades são de completar. A terceira parte vai ser uma aula que eu vou dar para vocês sobre uma técnica de leitura muito especial, que vai*

*ajudar vocês a explorarem melhor os textos que vocês precisam estudar. Nessa aula, vocês vão ouvir as minhas instruções e depois vamos trabalhar a leitura de alguns textos juntos. Na última etapa da pesquisa, vocês vão repetir a atividade de leitura e de atividades de completar espaços. Nossos encontros para essas tarefas vão acontecer a cada duas semanas, com possibilidade de mudarmos, caso a escola ou a turma tenha algum outro compromisso. Até aqui tudo bem? Querem que eu repita alguma informação?*

*(Repito as informações)*

*É importante vocês entenderem que nenhum de vocês é obrigado a participar. Vocês estão sendo convidados a contribuir com a minha pesquisa. Outra coisa: ninguém vai ser prejudicado se não quiser participar da pesquisa. Vocês não vão perder nota ou ganhar falta nas aulas normais de vocês. O único risco que vocês vão correr é o de, talvez, ficarem cansados durante as tarefas, mas teremos intervalos para vocês descansarem, irem tomar água ou ir ao banheiro. É importante vocês saberem também dos benefícios de estarem participando da pesquisa. O que vocês vão aprender pode ajudar no desempenho de vocês como estudantes, porque saber ler e entender um texto é importante, né?*

*(Pausa para resposta)*

*Então hoje eu vim até aqui para fazer essa fala com vocês, esse convite. Quem tiver interesse em participar da pesquisa, e aceitá-la, eu ficarei muito grata. Mas, antes de começarmos, eu preciso da autorização dos pais de vocês, porque vocês ainda são adolescentes. Eu vou entregar esse termo de consentimento a vocês, para que vocês levem para casa, para que os pais ou quem cuida de vocês possa ler, analisar, assinar (ou não) e autorizar (ou não) a participação de vocês na pesquisa. O termo de vocês eu entregarei no dia do preenchimento dos questionários. Vocês têm três dias para conversar com os pais ou responsáveis por vocês e devolver o termo aqui na escola, para mim. Os meus contatos, tanto de WhatsApp, como de e-mail, estão neste Termo de Consentimento, caso algum de vocês ou os pais tenham alguma pergunta sobre a pesquisa. Podem me mandar mensagem a qualquer momento, sem problemas. OK?*

*(Pausa para resposta)*

*(Entrega dos TCLEs aos alunos)*

*Pessoal, gostaria de saber se está tudo bem esclarecido, ou se há alguma coisa que vocês ainda não entenderam. Não precisam ter vergonha de perguntar. Eu estou aqui para isso.*

*(Perguntas e últimos esclarecimentos)*

*Então nos vemos daqui a três dias, quando eu voltar à escola para recolher os termos de consentimento. Eu gostaria de agradecer a atenção de vocês, a parceria com a professora Karol/professor Eduardo e a disponibilidade dela/dele em fornecer o espaço das aulas de inglês para que a gente possa desenvolver esse estudo e aprender mais uns com os outros. Muito obrigada! Bons estudos e até daqui a três dias.*

(Aceno de despedida e saída da sala de aula)

**APPENDIX VII – Questionário de Hábitos de Leitura e Interesse pela Língua Inglesa****UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**QUESTIONÁRIO SOBRE HÁBITOS DE LEITURA E INTERESSE PELA LÍNGUA  
INGLESA**

Este questionário tem como objetivo averiguar de que maneira vocês, alunos, veem a leitura e a língua inglesa. Peço, por favor, que as informações colocadas aqui sejam verdadeiras. Todos os seus dados vão estar em segredo, e as suas respostas serão usadas apenas para a elaboração de trabalhos acadêmicos. Agradeço desde já a colaboração.

**Sobre leitura:**

1. Analisando a escala abaixo, responda: O quanto você gosta de ler?

Não gosto       Gosto pouco       Gosto       Gosto muito

2. Para você, o que é leitura? (Assinale apenas a opção que melhor representa o que é a leitura para você)

( ) Uma diversão

( ) Uma obrigação

( ) Uma forma de aprender

( ) Uma coisa chata

( ) Outra. Qual? \_\_\_\_\_

(Continua na próxima página)

3. Qual é a pessoa que mais incentiva você a ler?

Professor(a)

Pais

Amigos

Ninguém

Outras pessoas. Quem? \_\_\_\_\_

4. Seus pais ou responsáveis adquirem ou compram materiais de leitura para você?(

) Sim

Não

Se a resposta aqui for **não**, pule para a questão 6.

5. Se a resposta anterior foi **sim**, responda: O que os seus pais ou responsáveis costumam comprar ou adquirir de materiais de leitura para você?

Revistas

Jornais

Gibis

Livros

Outros. Qual?

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6. Seus pais ou responsáveis costumam ler?(

) Sim

Não

Não sei

Se a resposta aqui for **não** ou **não sei**, pule para a pergunta número 8.

(Continua na próxima página)



7. O que os seus pais ou responsáveis costumam ler?(

Livros

Jornais

Revistas

Textos na internet (materiais de estudo, não redes sociais)

Outros. Quais? \_\_\_\_\_

**Sobre Língua Inglesa:**

8. Analisando a escala abaixo, responda: O quanto você gosta de inglês?

Não gosto       Gosto pouco       Gosto       Gosto muito

9. Analisando a escala abaixo, responda: O quanto você gosta das aulas de inglês?

Não gosto       Gosto pouco       Gosto       Gosto muito

10. Analisando a escala abaixo, responda: O quanto você acha que saber inglês é importante?

Não é importante       É pouco importante       É importante       É muito importante

11. Analisando a escala abaixo, responda: O quão difícil é, para você, aprender inglês?

Muito difícil       Difícil       Mais ou menos difícil       Fácil       Muito fácil

(Continua na próxima página)

12. Seus pais ou responsáveis incentivam você a aprender inglês?(

- Sim  
 Não

Se a resposta aqui for **não**, pule para a pergunta 15.

13. De que maneira os seus pais ou responsáveis incentivam você a aprender inglês?

- Eles estimulam os estudos.  
 Eles participam dos estudos em casa.  
 Eles compram ou conseguem materiais de apoio.  
 Eles pagam um curso extra.  
 Eles levam você para viajar.  
 Outros. Quais? \_\_\_\_\_

**Informações pessoais:**

14. Iniciais do nome: \_\_\_\_\_

15. Idade: \_\_\_\_\_

16. Sexo biológico:

- Masculino  
 Feminino

17. Ano que está frequentando na escola:

8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

Criciúma, \_\_\_\_\_ de \_\_\_\_\_ de 20\_\_.

Obrigada pelas informações!

**APPENDIX VIII – Questionário de Histórico da Linguagem**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**QUESTIONÁRIO DE HISTÓRICO DA LINGUAGEM PARA PESQUISAS COM  
BILÍNGUES (SCHOLL; FINGER, 2013)**

Número de identificação: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

Data de nascimento: \_\_\_\_/\_\_\_\_/\_\_\_\_ Local de nascimento: \_\_\_\_\_

**Parte 1**

1. Liste todas as línguas que você sabe em ordem de aquisição (1 sendo sua língua nativa):

<b>Língua 1</b>		<b>Língua 3</b>	
<b>Língua 2</b>		<b>Língua 4</b>	

2. Indique onde você aprendeu as suas línguas (marque tantas opções quantas forem necessárias):

**Língua 1**

**Língua 2**

( ) Casa

( ) Casa

( ) Escola

( ) Escola

( ) Curso de línguas    ( ) Curso de línguas

( ) Sozinho                ( ) Sozinho

( ) Outro:                    ( ) Outro:

\_\_\_\_\_

3. Informe a idade em que você:

	Língua 1	Língua 2
Começou a aprender	_____anos	_____anos
Começou a utilizar ativamente	_____anos	_____anos
Tornou-se fluente	_____anos	_____anos

4. Indique, marcando com um **X**, qual destes fatores contribuiu mais para a aprendizagem das suas línguas:

	Língua 1	Língua 2
Interação com a família		
Interação com os amigos		
Leitura		
Televisão		
Filmes		
Rádio/Música		
Internet		

Curso de línguas		
Videogame		
Outro: _____		

**Parte 2**

1. a) Marque com um **X** em que língua você:

	<b>Língua 1</b>	<b>Língua 2</b>
Fala com seu pai		
Fala com sua mãe		
Fala com outros familiares		
Fala com amigos		
Fala no trabalho/escola		
Lê/escreve no trabalho/escola		

2.

1. b) Escreva com que frequência (todos os dias, \_\_\_x por semana, \_\_\_x por mês etc.) você:

	<b>Língua 1</b>	<b>Língua 2</b>
Fala com seu pai		
Fala com sua mãe		
Fala com outros familiares		

Fala com amigos		
Fala no trabalho/escola		
Lê/escreve no trabalho/escola		

2.

2. Estime em número de horas o quanto você usa cada língua para as seguintes atividades diariamente:

	Língua 1	Língua 2
Ver TV/Filmes		
Jogar videogames		
Ouvir música		
Ler		
Escrever		
Falar		

3.

3. Marque com um **X** em que língua você:

	Língua 1	Língua 2
Conta		
Faz cálculos		
Faz anotações		
Expressa raiva		
Expressa afeição		

4.

**Parte 3**

1. Circule em uma escala de 1 a 6, seu nível de proficiência nas línguas que sabe (1 = muito baixo, 2 = baixo, 3 = razoável, 4 = bom; 5 = muito bom e 6 = proficiente):

<b>Língua 1</b>						
Leitura	1	2	3	4	5	6
Escrita	1	2	3	4	5	6
Compreensão auditiva	1	2	3	4	5	6
Fala	1	2	3	4	5	6
<b>Língua 2</b>						
Leitura	1	2	3	4	5	6
Escrita	1	2	3	4	5	6
Compreensão auditiva	1	2	3	4	5	6
Fala	1	2	3	4	5	6

2.

**Parte 4**

1. Marque com um **X** em que língua você se sente mais confiante ao:

	<b>Língua 1</b>	<b>Língua 2</b>
Ler		
Escrever		
Compreender		
Falar		

2.

2. Caso haja alguma outra informação que você ache importante sobre o aprendizado ou o uso das suas línguas, por favor, escreva abaixo:

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**APPENDIX IX – MARSİ TEST**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**INVENTÁRIO DE CONSCIÊNCIA DE ESTRATÉGIAS METACOGNITIVAS DE  
LEITURA (MARSİ TEST – VERSÃO 1.0) (MOKHTARI; REICHARD, 2002)**

Orientações: Abaixo estão listadas afirmações sobre o que as pessoas fazem quando elas leem *materiais acadêmicos ou escolares*, como textos e livros. Cinco números acompanham cada frase (1, 2, 3, 4, 5), e o significado de cada número é:

1. **1** significa “Eu **nunca ou quase nunca** faço isso.”
2. **2** significa “Eu faço isso **apenas ocasionalmente**.”
3. **3** significa “Eu **às vezes** faço isso.” (mais ou menos 50% das vezes)
4. **4** significa “Eu **geralmente** faço isso.”
5. **5** significa “Eu **sempre ou quase sempre** faço isso.”

Depois de ler cada frase, **circule o número** (1, 2, 3, 4 ou 5) que se aplica a você usando a escala oferecida. Por favor, entenda que **não há respostas certas ou erradas** para as afirmações neste inventário.

<b>Estratégia</b>	<b>Escala</b>				
1. Eu tenho um objetivo em mente quando eu leio.	1	2	3	4	5
2. Eu faço anotações enquanto leio para me ajudar a entender o conteúdo.	1	2	3	4	5

3. Eu penso no que eu já sei para me ajudar a entender o que eu leio.	1	2	3	4	5
4. Eu visualizo o texto, de uma forma geral, antes de lê-lo.	1	2	3	4	5
5. Quando o texto fica difícil, eu leio em voz alta para me ajudar a entendê-lo.	1	2	3	4	5
6. Eu resumo o que eu leio para refletir sobre as informações importantes do texto.	1	2	3	4	5
7. Eu penso se o conteúdo do texto está de acordo com o meu objetivo de leitura.	1	2	3	4	5
8. Eu leio devagar, mas com cuidado, para ter certeza de que eu entendi o que estou lendo.	1	2	3	4	5
9. Eu discuto o que eu li com outras pessoas para checar o meu entendimento.	1	2	3	4	5
10. Eu passo os olhos ( <i>skim</i> ) pelo texto primeiro para anotar características como tamanho e organização.	1	2	3	4	5
11. Eu tento focar novamente quando eu perco a concentração.	1	2	3	4	5
12. Eu sublinho ou circulo informações no texto para me ajudar a lembrar delas.	1	2	3	4	5
13. Eu adapto a velocidade da minha leitura de acordo com o que eu estou lendo.	1	2	3	4	5
14. Eu decido cuidadosamente o que ler e o que ignorar.	1	2	3	4	5

15. Eu uso materiais de referência, como dicionários, para me ajudar a entender o que eu leio.	1	2	3	4	5
16. Quando o texto se torna difícil, eu presto mais atenção no que estou lendo.	1	2	3	4	5
17. Eu observo tabelas, figuras e imagens do texto para aumentar a minha compreensão.	1	2	3	4	5
18. Eu paro de tempos em tempos e penso no que estou lendo.	1	2	3	4	5
19. Eu uso pistas do contexto para ajudar na compreensão do que estou lendo.	1	2	3	4	5
20. Eu reformulo as ideias do texto com as minhas próprias palavras para entender melhor o que eu leio.	1	2	3	4	5
21. Eu tento visualizar as informações para me ajudar a lembrar do que estou lendo.	1	2	3	4	5
22. Eu me apoio em palavras em <b>negrito</b> ou <i>itálico</i> para identificar informações importantes.	1	2	3	4	5
23. Eu analiso criticamente e avalio a informação presente no texto.	1	2	3	4	5
24. Eu vou e volto no texto para encontrar relação entre as ideias.	1	2	3	4	5
25. Eu checo o meu entendimento quando me deparo com uma informação conflitante.	1	2	3	4	5

26. Eu tento adivinhar o assunto do material quando eu leio.	1	2	3	4	5
27. Quando o texto fica difícil, eu o releio para aumentar a minha compreensão.	1	2	3	4	5
28. Eu formulo perguntas que eu gostaria que fossem respondidas no texto.	1	2	3	4	5
29. Eu checo se os meus palpites sobre o texto estão certos ou errados.	1	2	3	4	5
30. Eu tento adivinhar o sentido de palavras ou frases desconhecidas.	1	2	3	4	5

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Número de identificação do(a) aluno(a): \_\_\_\_\_ Idade: \_\_\_\_\_ Data: \_\_\_\_\_

Série/ano na escola: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

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**APPENDIX X - Fábula utilizada no pré-teste (06 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

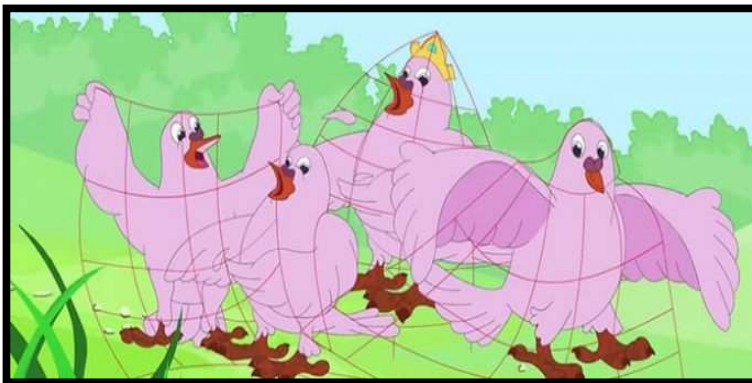
**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>a</sup>. Dr<sup>a</sup>. Ana Beatriz Arêas da Luz Fontes

**Fable:** *Unity is strenght*

Once upon a time, there was a flock of doves that flew in search of food led by their king. One day, they had flown a long distance and were very tired. The dove king encouraged them to fly a little further. The smallest dove picked up speed and found some rice scattered beneath a tree. So all the doves landed and began to eat.

Suddenly a net fell over them and they were all trapped. They saw a \_\_\_\_\_ (pillow/hunter/trying) approaching. The doves desperately fluttered their wings trying to get out, but to no \_\_\_\_\_ (avail/mouse/little). The king had an idea. He advised all the doves to fly up together carrying the \_\_\_\_\_ (dog/fit/net) with them. He said that there was strength in unity.



Each \_\_\_\_\_ (life/born/dove) picked up a portion of the net and together they flew off carrying the \_\_\_\_\_ (few/net/bat) with them. The hunter tried to follow them, but they were flying high over the \_\_\_\_\_ (books/great/hills). They flew to a

city where there lived a mouse who could help them. He was a faithful \_\_\_\_\_ (garden/friend/louder) of the dove leader.

When the mouse heard the noise of their \_\_\_\_\_ (approach/computer/suddenly), he went into hiding. The dove king gently called out to him and the \_\_\_\_\_ (large/water/mouse)

was happy to see him. The dove king explained that they had been caught in a \_\_\_\_\_  
 (bone/fine/trap) and needed the mouse's support to gnaw at the net with his \_\_\_\_\_  
 (spoon/teeth/never) and set them free.

The mouse agreed. He began to cut the \_\_\_\_\_  
 (boy/lit/net) and one by one all the doves were freed including  
 the dove \_\_\_\_\_ (last/ball/king).

They all thanked the mouse and flew away together,  
 united in their \_\_\_\_\_ (barbecue/strength/listened).

**Moral:** You can be stronger if you work with your  
 \_\_\_\_\_ (line/team/blue).



This fable was taken and adapted from the website: [www.moralstories.org](http://www.moralstories.org)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

**APPENDIX XI – Fábula utilizada no pré-teste (15 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com crianças do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>a</sup>. Dr<sup>a</sup>. Ana Beatriz Arêas da Luz Fontes

**Fable:** *The lion and the clever fox*

Years ago, there lived a lion in a dense forest. One morning his wife told him that his breath was bad and unpleasant. The lion became embarrassed and irritated upon hearing it. He wanted to check this fact with other animals. So he called three others outside his cave.

First came the sheep. The Lion opening his mouth wide said, “\_\_\_\_\_ (towel/sheep/sunny), tell me if my mouth smells bad?” The sheep thought that the \_\_\_\_\_ (lake/nice/lion) wanted an honest answer, so the sheep said, “Yes, friend. There seems to be something inadequate with your \_\_\_\_\_ (breath/bottle/sudden)”. This plan did not go well with the lion. He trapped the \_\_\_\_\_ (pencil/cloudy/sheep), killing it.



Then the lion called the wolf and said, “What’s your argument? Do I have a bad \_\_\_\_\_ (window/breath/uglier)?” The wolf saw what happened to the sheep. He wanted to be very prudent in answering the question. So, the

\_\_\_\_\_ (bird/wolf/near) said, “Who says that your breath is unpleasant? It is as sweet as the \_\_\_\_\_ (smell/glass/dirty) of roses”. When the lion heard the reply, he roared in an \_\_\_\_\_ (mouse/anger/close) and immediately attacked the wolf and killed it. “The toady!” growled the \_\_\_\_\_ (like/seal/lion).

Finally, came the turn of the fox. The lion asked him about the problem. The \_\_\_\_\_ (cat/fox/fat) was well alert of the fate of the sheep and the \_\_\_\_\_ (rich/star/wolf). So he coughed and cleared his throat again and again and then said, “Oh dear \_\_\_\_\_ (drawer/friend/always), for the last few days, I have been having a very bad \_\_\_\_\_ (line/cold/done). Due to this, I can't smell anything, pleasant or unpleasant”.

The \_\_\_\_\_ (calm/moon/lion) spared the fox's life.

**Moral:** Do not involve yourself in bad companies or a bad situation or you may end up getting punished for no \_\_\_\_\_ (brick/fault/since) of yours. Sometimes, it is wise to stay away from certain situations.



This fable was taken and adapted from the website: [www.moralstories.org](http://www.moralstories.org)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )



APPENDIX XII – Notícia utilizada no pré-teste (06 cognatos)

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**News:** *In self-named work, Alicia Keys gives words of hope in times of despair*



Delayed by the disease, "Alicia" dropped Friday – six months later than expected. It is the singer's seventh studio work and her latest since 2016's "Here."

On "Alicia," Keys, 39, lights spirits by serving up a host of forward-looking \_\_\_\_\_ (great/tools/songs) with words of love, help and peace. On "So Done," a \_\_\_\_\_ (partnership/caterpillar/everlasting) with Khalid, she shows a path forward after despair, using her soft, touching \_\_\_\_\_ (price/rainy/voice) to sing.

Love is an everyday theme, with three songs including "Love" in the \_\_\_\_\_ (title/apron/early). In "Show Me Love," a shared work with Miguel, she tells her \_\_\_\_\_ (toy/and/man), "This is not the season for nobody else but us."

On Friday, when the \_\_\_\_\_ (too/set/ash) of songs dropped, Keys gave a free performance of songs, through \_\_\_\_\_ (before/shadow/screen), from "ALICIA" as share of the concert row at 6 p.m.

It has been a busy \_\_\_\_\_ (year/mitt/gone) for the Grammy-winning singer. In addition to the new \_\_\_\_\_ (ever/soul/work), her story "More Myself" hits book stores in the beginning of the year. The \_\_\_\_\_ (seed/book/plus) tells her changing journey through

the music business, her relationships and \_\_\_\_\_ (laughing/cinnamon/marriage) to Swizz Beatz and the path of finding herself.

Keys loved getting a bird's-eye \_\_\_\_\_ (view/said/gate) of her life, reflections, and backgrounds. "Normally you do not really get a chance to look back on them," she told USA TODAY at that time.

She also presented the Grammys for the second year in a \_\_\_\_\_ (met/fur/row). This year's ceremony was especially emotive, coming just hours after Kobe Bryant died in a \_\_\_\_\_ (lobster/healthy/chopper) crash.

"It was just an awful blow," Keys said. "You could feel the energy shift immediately in the \_\_\_\_\_ (space/river/again), in the world in the consciousness in all of us."



This news was taken and adapted from the website: [www.usatoday.com](http://www.usatoday.com)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

**APPENDIX XIII – Notícia utilizada no pré-teste (15 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**News:** *Blake Shelton to drop 'Body Language,' first set of songs since 2017*

A new album from country music star Blake Shelton comes this May. The "God of Country" and host on NBC's "The Voice" brings "Body Language" — his first songs since 2017 "Texoma Shore" — on May 21, through Warner Nashville. The company said it on Monday in a



news release.

“We have been working on this project on and off for two \_\_\_\_\_(hands/years/heavy) now, and I am very glad of what we have put together,” Shelton said in a \_\_\_\_\_(yesterday/chemistry/statement). “We certainly had some unique tests with the disease, but we also had a lot of \_\_\_\_\_(fun/bye/tip). We looked for new sounds while making sure to get in some classic

\_\_\_\_\_ (already/weather/country).”

Among the songs there are "Happy Anywhere," a duet with pop-rock \_\_\_\_\_ (wall/nice/star) and Shelton girlfriend Gwen Stefani, and "Minimum Wage," a new \_\_\_\_\_ (single/pretty/bottle) the Oklahoma native went to bat for earlier this year after some \_\_\_\_\_ (wonderful/daughters/listeners) asked about its message. The impact of the song was huge, but Shelton said he had worked a lot to get by and he was proud of his \_\_\_\_\_(rule/much/song), because it gives a great moral to the world.

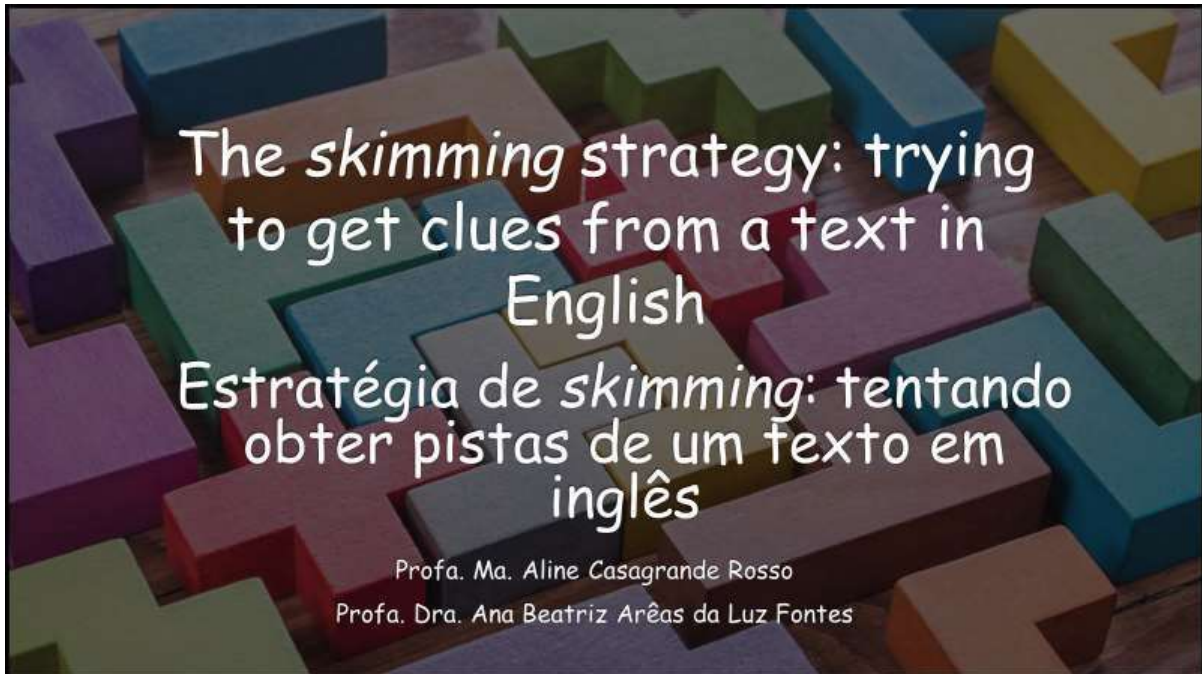
Shelton engaged a \_\_\_\_\_  
 (once/slew/leaf) of excellent Nashville writers for  
 the job, including Nicolle Galyon, Michael Hardy,  
 Casey Beathard, Shane McAnally, and Old  
 Dominion's Brad Tursi, among other famous  
 \_\_\_\_\_(people/stores/joyful).



The Swon Brothers, an Oklahoma country  
 pair that previously performed on "The  
 \_\_\_\_\_(Laugh/Green/Voice)" program join Shelton on the "Body Language" title track. And  
 this \_\_\_\_\_(file/work/been) will not be Shelton's only release this spring. The \_\_\_\_\_  
 (hitmaker/stubborn/marriage) comes back to the song that started his career next month by giving  
 a limited edition \_\_\_\_\_(healthy/blanket/release) of "Austin," celebrating 20 years since  
 his N°. 1 single. "He is pleased to show his \_\_\_\_\_(friendly/endeavor/magazine) to the  
 public again", a friend said.

This news was taken and adapted from the website: [www.usatoday.com](http://www.usatoday.com)

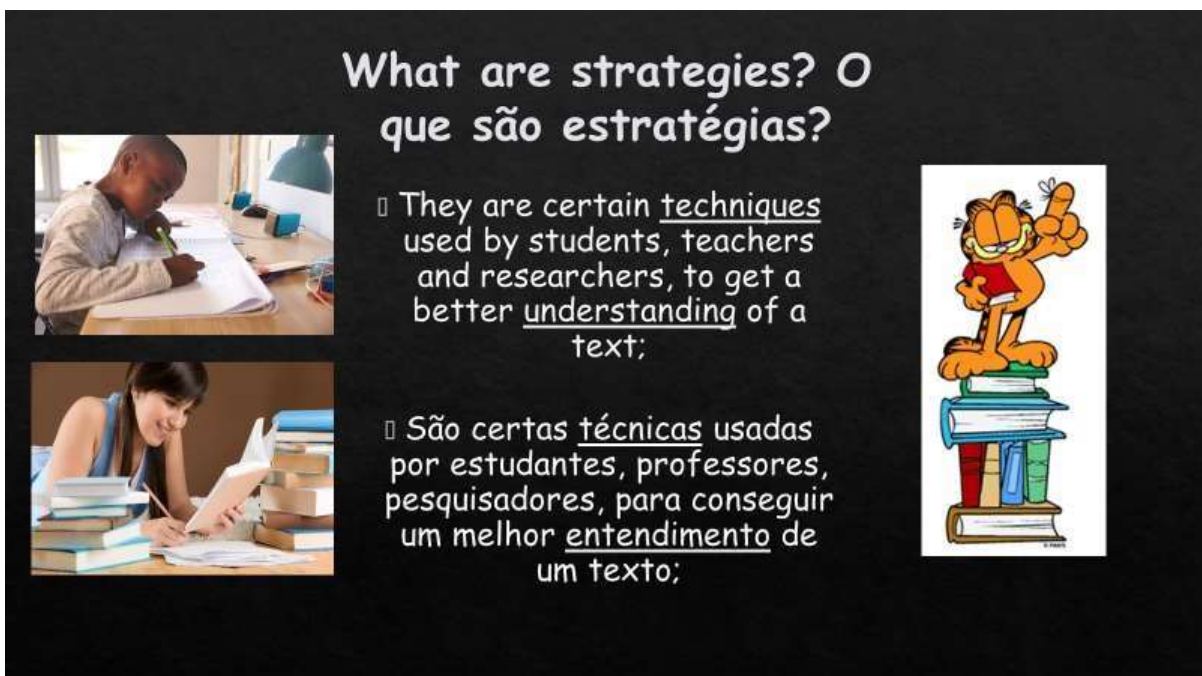
Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

APPENDIX XIV – Instrução do *skimming* em forma de slides


The *skimming* strategy: trying to get clues from a text in English

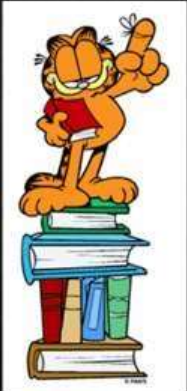
Estratégia de *skimming*: tentando obter pistas de um texto em inglês

Profa. Ma. Aline Casagrande Rosso  
Profa. Dra. Ana Beatriz Arêas da Luz Fontes

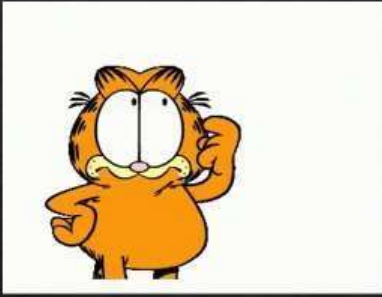


What are strategies? O que são estratégias?

- They are certain techniques used by students, teachers and researchers, to get a better understanding of a text;
- São certas técnicas usadas por estudantes, professores, pesquisadores, para conseguir um melhor entendimento de um texto;







□ So it is important to use reading strategies in texts in a different language, because the reader may not be used to that code;



□ Então é importante usar estratégias de leitura em textos em uma língua diferente, porque o leitor pode não estar acostumado com esse código;

Thus, in a second language, a student needs to be strategic!

Por isso, em uma segunda língua, um estudante precisa ser estratégico!

BUT WHAT IS A STRATEGIC READER?



MAS O QUE É UM LEITOR ESTRATÉGICO?



Is it someone like  
this?

É alguém assim?

LET ME THINK...



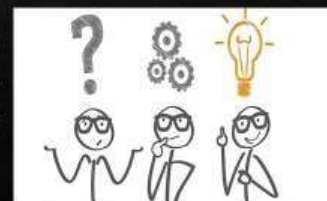
HOW I STUDY.



SLOTHILDA.COM

What is a strategic reader? O que é um leitor estratégico?

- ▣ It is someone who gives its best to understand a certain text - É alguém que dá o seu melhor para entender um certo texto;
- ▣ It is someone who does not give up on the first challenge - É alguém que não desiste no primeiro desafio;
- ▣ It is someone who identifies its reading problems and tries to solve them - É alguém que identifica os seus problemas na leitura e tenta resolvê-los;



And there is a very special strategy to help you with your English reading!

E há uma estratégia muito especial para ajudar você na sua leitura em inglês!

It's called skimming!  
O skimming!



## Skimming - O skimming

- The word "skim" means "to take the cream over the milk", "to use a skimmer", or "to extract the surface, the top of something".
- A palavra "skim" significa "tirar a nata do leite", "usar uma escumadeira", ou "extrair a superfície, a parte de cima de algo".





## Skimming – O skimming

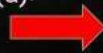


- ▣ In a text, it means to extract the main information, based on the visual tips, like pictures, titles, subtitles, bold/underlined words, cognates, graphics, etc.
- ▣ Em um texto, isso significa retirar a informação principal, baseada nas dicas visuais, como figuras, títulos, subtítulos, palavras em **negrito/sublinhadas**, cognatos, gráficos, etc.
- ▣ It's like a reading guessing game! 🖥️



Let's try to use skimming  
together?  
Vamos tentar usar o skimming  
juntos?

First, read this billboard by  
yourself:  
Primeiro, leia este outdoor  
sozinho(a):



Fonte: Google  
Images



Now let's take a look at the most visible parts of it: text, picture, brand and cognates. How did it change your reading?

Agora vamos dar uma olhada nas partes mais visíveis dele: texto, figura, marca e cognatos. Como isso mudou a sua leitura?



Let's do it again?  
Vamos fazer de novo?

Read this new billboard by yourself:  
Leia este novo outdoor sozinho(a):



Fonte: Google Images

How did it go?  
Como foi?



Fonte: Google  
Images



Let's try to use the skimming in  
longer texts?  
Vamos tentar usar o skimming  
em textos mais longos?

First, read this fable by  
yourself:  
Primeiro, leia esta fábula  
sozinho(a):



Fonte:  
www.moralstories.org

#### Fox and The Goat



Once a fox was roaming around in the dark. Unfortunately, he fell into a well. He tried his level best to come out but all in vain. So, he had no other alternative but to remain there until the next morning. The next day, a goat came that way. She peeped into the well and saw the fox there. The goat asked, "what are you doing there, Mr. Fox?"

The sly fox replied, "I came here to drink water. It is the best I have ever tasted. Come and see for yourself!" Without thinking even for a while, the goat jumped into the well, quenched her thirst and looked for a way to get out. But just like the fox, she also found herself helpless to come out.

Then the fox said, "I have an idea. You stand on your hind legs. I'll climb on your head and get out. Then I shall help you come out too." The goat was innocent enough to understand the shrewdness of the fox and did as the fox said and helped him get out of the well.

While walking away, the fox said, "Had you been intelligent enough, you would never have got in without seeing how to get out."

Moral: Look before you leap. Do not just blindly walk in to anything without thinking.



Now let's take a look at the most visible parts of it: title, picture, underlined words and cognates. How did it change your reading?

Agora vamos dar uma olhada nas partes mais visíveis dele: título, figura, palavras sublinhadas e cognatos. Como isso mudou a sua leitura?



Fox and The Goat



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Moral: Look before you leap. Do not just blindly walk in to anything without thinking.

Let's check?

Vamos checar?

Fox and The Goat



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Moral: Look before you leap. Do not just blindly walk in to anything without thinking.

Fonte:  
www.moralstories.org


One more time?  
Now try to do it  
by yourself, OK?  
😊

Mais uma vez?  
Agora tente  
fazer sozinho (a),  
OK? 😊



Fonte: www.bbc.co.uk

J.K. Rowling to pen first novel for adults



Author J.K.Rowling has announced plans to publish her first novel for adults, which will be "very different" from the Harry Potter books she is famous for.

The book will be published worldwide although no date or title has yet been released. "The freedom to explore new territory is a gift that Harry's success has brought me", Rowling said.

All the Potter books were published by Bloomsbury, but Rowling has chosen a new Publisher for her debut into adult fiction. "Although I've enjoyed writing it every bit as much, my next book will be very different to the Harry Potter series, which has been published so brilliantly by Bloomsbury and my other publishers around the world", she said in a statement. "I'm delighted to have a second publishing home in Little, Brown, and a publishing team that will be great partner in this new phase of my writing life."


How was it?

Como foi?



Fonte: www.bbc.co.uk

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Now let's practice our strategies in paper?  
Let's play the guessing game?

Agora vamos praticar a nossa estratégia no papel?  
Vamos jogar o jogo da adivinhação?



**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL**  
**INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**Fable:** *The rabbit and the turtle*

One day a rabbit was boasting about how fast he could run. He was laughing at the turtle for being so slow. Much to the rabbit's surprise, the turtle challenged him to a race. The rabbit thought this was a good joke and accepted the challenge.



As the race began, the rabbit raced way ahead of the turtle, just like everyone thought. He was presuming he would win because the turtle was too slow. He ran through the trees and bushes and was already imagining himself being carried by the animals and being

cheered for the victory.

The rabbit got to the halfway point and could not see the turtle anywhere. He was hot and tired and decided to stop and take a short nap. Even if the turtle passed him, he would be able to race to the finish line ahead of her. "The turtle does not have any chance against me", he thought.

All this time the turtle kept walking step by step by step. She never quit no matter how hot or tired she got. She just persisted going. She was sure she could win the race and let everybody astonished. And the turtle was trying hard to achieve her goal.

Her rival, the rabbit, slept longer than he had thought and woke up, a little bit confused. He got scared because he could not see the turtle anywhere! He went at full speed to the finish line but found the turtle



there waiting for him. The turtle was happy, and all her friends were around her, celebrating her achievement.

**Moral:** It does not matter how good you think you are. Never underestimate the weakest opponent.

This fable was taken and adapted from the website: [www.moralstories.org](http://www.moralstories.org)



**APPENDIX XVI – Notícia usada no treinamento (09 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

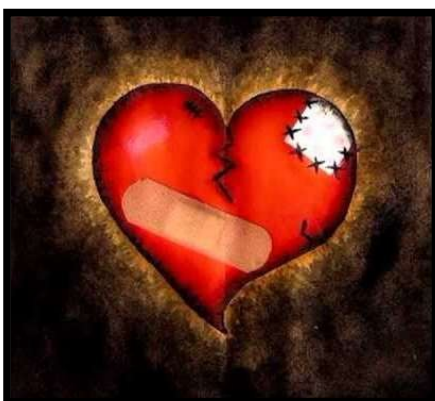
**News:** *Olivia Rodrigo's new single about heartbreak sounds like a feeling journey*

Olivia Rodrigo released a new single Thursday just a couple months after giving listeners "Driver's License" in January. The 18 year old star's new record "Deja Vu" is from her upcoming, yet to be titled, debut album expected May 21.

Rodrigo tells Apple Music's Zane Lowe in an interview released Thursday she wrote the song a month after "Driver's License" and alike to her former single, "Deja Vu" is about heartbreak.



After the progress of her first single "Driver's License," which started in the N<sup>o</sup>. 1 spot on the Billboard Hot 100 chart on its release, Rodrigo said she felt pressure to follow up with another hit. "The achievement of 'Driver's License' has been a huge lesson in how you just need to, when you put a song out, you just need to let it go.



And it is everyone else's song to interpret, it is not your song anymore," Rodrigo said. "But it is kind of hard having that be my first song ever, because the boom is so immense."

Rodrigo's solo launching with "Driver's License," the pop song about a lost love spread on social networks and was one the most streamed song in a single week. It even

got a stamp of approval from Taylor Swift, who responded to Rodrigo's success by writing "that's my girl and I am so proud."

People were quick at trying to guess who Rodrigo's lyrics were about, many understanding that Rodrigo was singing about a failed relationship with the star Joshua Bassett and his supposed new affair, Sabrina Carpenter. Why? Because Carpenter fits the characteristics of the woman depicted in Rodrigo's song.

This news was taken and adapted from the website: [www.usatoday.com](http://www.usatoday.com)

**APPENDIX XVII – Fábula usada no pós-teste (06 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com pré-adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>a</sup>. Dr<sup>a</sup>. Ana Beatriz Arêas da Luz Fontes

**Fable:** *The little mouse*

Once upon a time, there was a Baby Mouse and Mother Mouse. They lived in a hole in the skirting board in a big, cozy house with lots of cheese to eat. Mother Mouse was a caring and intelligent mom, always looking after her child. They lived very comfortably, and they did not wish to change their life for nothing in the world.



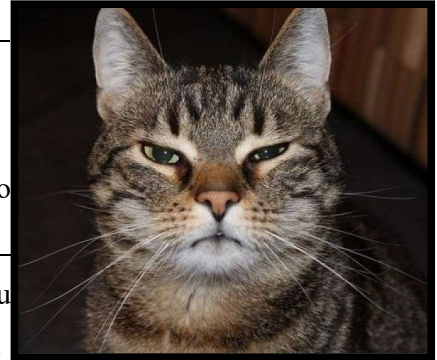
Then, one day, Mother Mouse decided to take Baby Mouse outside of their \_\_\_\_ (with/moon/home). He was growing up and she realized he needed to view outside the \_\_\_\_ (plums/walls/yours) and make friends. However, waiting outside for them was a huge ginger \_\_\_\_\_ (cat/sky/but), licking its lips and waiting to swallow them both up. He had wide \_\_\_\_\_ (worms/those/teeth) and sharp claws.

“Mother, Mother! What should we do?” Cried Baby \_\_\_\_\_ (youth/mouse/silly), clinging to his mother’s tail. Mother Mouse paused, staring up into the beady \_\_\_\_\_ (even/eyes/ties) of the hungry cat. But she was not in panic because she knew to handle with the \_\_\_\_\_ (broken/danger/garden) and frightful cats. She opened her mouth and took in a deep \_\_\_\_\_ (breath/riddle/wasted).

“Woof! Woof! Bark bark bark!” She shouted. Mom Mouse used a loud deep \_\_\_\_\_ (wrong/shell/voice). The cat froze. That sound reminded him of his biggest \_\_\_\_\_ (roofs/fears/after). So, the cat ran away as brisk as he could, scared.

“Wow! That was amazing!” the \_\_\_\_\_ (lost/nose/baby) told his mom, smiling happily. His mom was his greatest heroin!

“Nowadays, my \_\_\_\_\_ (lit/son/eve), we ought to learn a little bit of everything. When it comes to \_\_\_\_\_ (priest/speech/bitter), it is even more meaningful. And now you can perceive, my \_\_\_\_\_ (love/gold/sick), why it is always best to possess a second idiom. Sometimes it can imply \_\_\_\_\_ (purchase/although/survival)!”



**Moral:** It is always fruitful to speak another language.

This fable was taken and adapted from the website: [www.moralstories.org](http://www.moralstories.org)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

## APPENDIX XVIII – Fábula usada no pós-teste (15 cognatos)

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com pré-adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**Fable:** *The wolf and the crane*

A Wolf had been promoting festivals frequently, and, one day, during one of his meals, a bone had stuck crosswise in his throat. He could put it neither up nor down, and of course, he could not eat even porridge. Naturally, that was an awful situation for an insatiable Wolf.



A Crane lived near there, next to the lake. She was a kind animal, and always tried to help her \_\_\_\_\_ (itching/friends/streets). However, she was apprehensive about the Wolf.

So, to acquire \_\_\_\_\_ (cooperation/environment/everlasting), the wolf looked for the Crane. He was

assured that she, with her long \_\_\_\_\_ (have/neck/city) and beak, would easily be competent to reach the bone and remove it. “I will compensate you very generously, if you pull that \_\_\_\_\_ (bone/down/leaf) out for me” spoke the Wolf.

The Crane, as you may imagine, was uncomfortable and anxious about putting her \_\_\_\_\_ (best/gift/head) in Wolf’s throat. She was afraid because the wolf could kill her. But she was particularly skilled at grasping objects, so she did what the \_\_\_\_\_ (wolf/oven/much) asked her to do. When the Wolf felt that the \_\_\_\_\_ (woman/piece/alone) of bone had disappeared, he started to move away and went \_\_\_\_\_ (gate/home/true).

“But what about my reward? Won’t you grant me a recompense? You promised me!” called the \_\_\_\_\_ (other/brain/crane) nervously.

“What?” questioned the Wolf, turning around. “Didn’t you understand? Isn’t it a nice \_\_\_\_\_ (candy/thing/given) that I allowed you to pull your head out of my \_\_\_\_\_ (mouth/clear/witch) with no mutilation?”

The Crane was thoughtful, because she gained no \_\_\_\_\_ (smooth/reward/breast), but at least she stayed alive. And now she knew that the wolf was fake and could not keep any \_\_\_\_\_ (husband/awesome/promise).



**Moral:** Expect no returns for serving the one who has no \_\_\_\_\_ (bored/arrow/honor). Staying in a company of selfish friends will not bring anyone any \_\_\_\_\_ (twentieth/lightning/advantage) or do any favor.

This fable was taken and adapted from the website: [www.moralstories.org](http://www.moralstories.org)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

**APPENDIX XIX – Notícia usada no pós-teste (06 cognatos)**

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com pré-adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**News:** Meet Lakeyah, the rising hip-hop star

We are living in a golden age for women in hip-hop, with more new female stars — including Megan Thee Stallion, Doja Cat, Saweetie, Mulatto — than ever. And Milwaukee born Lakeyah is ready to join their ranks.

On Friday, just four months after her head-turning mix \_\_\_\_\_ (goal/tape/fine) "Time's Up," the Atlanta-based singer is releasing an even stronger sophomore \_\_\_\_\_ (but/tie/set), "In Due Time," gathering guest verses from Gucci Mane and Yung Bleu.



"It was such a male-dominated \_\_\_\_\_ (game/bone/just) in the beginning when hip-hop first started," Lakeyah stated in an \_\_\_\_\_ (abounding/emptiness/interview) with the USA TODAY Network. "Women are getting much more \_\_\_\_\_ (lobster/respect/because) when it comes to being singers. They are killing the \_\_\_\_\_ (soft/fork/game) right now, and I am grateful to be a part of this."

Behind the \_\_\_\_\_ (enough/hearts/scenes), the 19-year-old is working with some of the best in the \_\_\_\_\_ (business/flawless/reindeer). Last July, she signed to a famous label. "I feel like Lakeyah can be a big \_\_\_\_\_ (doll/tiny/star)... a huge threat," said the

CEO Pierre "P" Thomas. "Not only can she rap, but she can also sing and she can write. I see her not just being an artist, but a big brand \_\_\_\_\_ (compliment/speechless/ambassador)."



And all of this happened before "In Due Time's" release. As impressive as that mix \_\_\_\_\_ (wood/self/tape) was, the follow-up is noticeably stronger.

Four kinds of video from "In Due Time" are already in the \_\_\_\_\_ (can/own/ant); Lakeyah is making more from this work and she is already working on her third \_\_\_\_\_ (serendipity/unstoppable/achievement), due this

year. "She possesses the potential to be one of the first (hip-hop) \_\_\_\_\_ (fireboards/performers/everything) that really makes it on the mainstream level from her \_\_\_\_\_ (state/money/other) and her city", Thomas stated.

This news was taken and adapted from the website: [www.usatoday.com](http://www.usatoday.com)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )



**APPENDIX XX – Notícia usada no pós-teste (15 cognatos)**

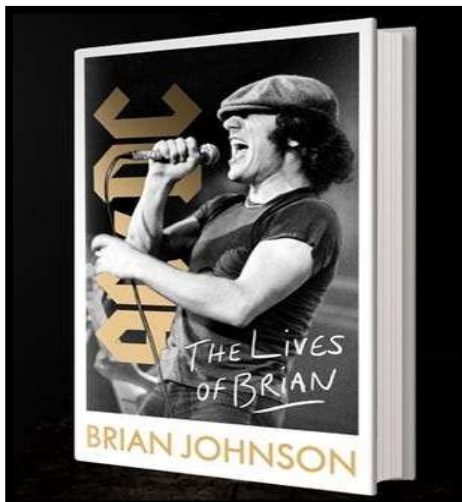
**UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
INSTITUTO DE LETRAS**

**Tese:** O *skimming* como ferramenta para o desenvolvimento de habilidades leitoras em L2 com pré-adolescentes do Sul de Santa Catarina

**Doutoranda:** Aline Casagrande Rosso

**Orientadora:** Prof<sup>ª</sup>. Dr<sup>ª</sup>. Ana Beatriz Arêas da Luz Fontes

**News:** *Singer Brian Johnson set to release book this fall*



On Monday, AC/DC singer Brian Johnson announced the release of his book in the fall. "I have had some long nights and some great nights, bad days and a lot of joyful ones," Johnson wrote in a post on the media.

"I have gone from choirboy to rock 'n' roll singer, and now I have gone and written a bloody \_\_\_\_\_ (hour/safe/book) about it. 'The Lives of Brian is coming October 26th."

The material is described as a "warm, modern, and often funny \_\_\_\_\_ (thing/ghost/sharp). 'The Lives of Brian' tells the life of one of our most loved \_\_\_\_\_ (everywhere/agreements/performers) in his own strong voice."

"It was not me. I did not do it. And I will never do it again!" Johnson says of "The Lives of Brian." The same \_\_\_\_\_ (release/forever/kingdom) is about his autobiography as one of "the most cheering and entertaining \_\_\_\_\_ (wives/tales/alone) in rock 'n' roll history."

In 2020, Johnson reunited with AC/DC \_\_\_\_\_ (bell/less/crew) for their raw and rocking comeback album "Power Up." The band's first new full-length \_\_\_\_\_ (trial/among/ruler) in six years, it reached No. 1 on the Billboard 200 while topping numerous \_\_\_\_\_ (smiles/charts/strong) worldwide. A huge victory for the group, it was particularly satisfactory for Johnson.

He joined AC/DC sharp for the writing and recording of their gigantic 1980 \_\_\_\_\_  
 (bat/for/hit) "Back in Black" and had been lead singer for each following \_\_\_\_\_  
 (soul/work/that) before departing because of hearing problems in 2016.

Then, Johnson regained his listening talent and returned  
 to his \_\_\_\_\_ (role/gold/ugly) with that, as fierce as ever  
known, high and dominant \_\_\_\_\_ (world/sixty/voice)

"The Lives of Brian" will be published with a  
 traditional \_\_\_\_\_ (option/breath/sunny) priced at more

or less \$28 and "plus", a signed original \_\_\_\_\_  
 (blanket/awesome/version) that costs about \$137. This release is  
 a need mainly for the rock \_\_\_\_\_  
 (crafts/smelly/lovers).



This news was taken and adapted from the website: [www.usatoday.com](http://www.usatoday.com)

Iniciais do nome: \_\_\_\_\_ Turma: 8º ( ) 9º ( ) Turma 01 ( ) Turma 02 ( )

**APPENDIX XXI - Tabelas de cognatos dos textos (pré-teste)**

Texto: Fábula 01 (06 cognatos)	O.S (Ortographic Similarity) (+ 0,7)	Texto: Notícia 01 (06 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
long - longa	0,73	energy - energia	0,71
distance - distância	0,72	concert - concerto	0,78
idea - ideia	0,8	music - música	0,75
leader - líder	0,75	reflections - reflexões	0,73
support - suporte	0,74	chance - chance	1
moral - moral	1	emotive - emotiva	0,74
<b>MÉDIA</b>	<b>0,79</b>	<b>MÉDIA</b>	<b>0,78</b>

Texto: Fábula 02 (15 cognatos)	O.S (Ortographic Similarity) (+ 0,7)	Texto: Notícia 02 (15 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
dense - densa	0,7	album - álbum	1
irritated - irritado	0,72	music - música	0,75
animals - animais	0,85	tests - testes	0,89
honest - honesta	0,77	impact - impacto	0,77
inadequate - inadequado	0,71	public - público	0,77
plan - plano	0,73	classic - clássica	0,79
argument - argumento	0,79	duet - dueto	0,73
prudent - prudente	0,78	minimum - mínimo	0,73
roses - rosas	0,7	native - nativo	0,72
problem - problema	0,88	moral - moral	1
alert - alerta	0,75	excellent - excelente	0,78

moral - moral	1	famous - famoso	0,72
companies - companhias	0,8	performed - performou	0,7
certain - certas	0,7	program - programa	0,76
situations - situações	0,78	pair - par	0,77
<b>MÉDIA</b>	<b>0,78</b>	<b>MÉDIA</b>	<b>0,79</b>

**APPENDIX XXII - Tabelas de cognatos dos textos (treinamento)**

Texto: Fábula 01 (09 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
surprise - surpresa	0,7
presuming - presumindo	0,73
animals - animais	0,85
chance - chance	1
persisted - persistiu	0,72
rival - rival	1
confused - confuso	0,71
moral - moral	1
opponent - oponente	0,79
<b>MÉDIA</b>	<b>0,83</b>

Texto: Notícia 01 (09 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
album - álbum	1
music - música	0,75
progress - progresso	0,79
interpret - interpretar	0,81
immense - imenso	0,7
social - social	1
sucess - sucesso	0,75
responded - respondeu	0,8
characteristics - características	0,89
<b>MÉDIA</b>	<b>0,83</b>



## APPENDIX XXIII - Tabelas de cognatos dos textos (pós-teste)

Texto: Fábula 01 (06 cognatos)	O.S (Ortographic Similarity) (+ 0,7)	Texto: Notícia 01 (06 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
intelligent - inteligente	0,78	verses - versos	0,75
panic - pânico	0,75	part - parte	0,73
heroin - heroína	0,77	artist - artista	0,77
important - importante	0,79	impressive - impressionante	0,78
idiom - idioma	0,78	video - vídeo	1
moral - moral	1	potential - potencial	0,88
<b>MÉDIA</b>	<b>0,81</b>	<b>MÉDIA</b>	<b>0,81</b>

Texto: Fábula 02 (15 cognatos)	O.S (Ortographic Similarity) (+ 0,7)	Texto: Notícia 02 (15 cognatos)	O.S (Ortographic Similarity) (+ 0,7)
festivals - festivais	0,88	media - mídia	0,75
animal - animal	1	material - material	1
long - longo	0,73	modern - moderno	0,77
competent - competente	0,81	autobiography - autobiografia	0,7
remove - removê	1	history - história	0,7
compensate - compensar	0,73	album - álbum	1
imagine - imaginar	0,7	band - banda	0,73
objects - objetos	0,78	numerous - numerosos	0,78
move - mover	0,73	satisfactory - satisfatório	0,7

recompense - recompensa	0,77	gigantic - gigante	0,72
questioned - questionou	0,7	problems - problemas	0,9
moral - moral	1	traditional - tradicional	0,86
returns - retornos	0,75	talent - talento	0,77
serving - servir	0,7	dominant - dominante	0,8
favor - favor	1	original - original	1
<b>MÉDIA</b>	<b>0,82</b>	<b>MÉDIA</b>	<b>0,81</b>



## APPENDIX XXIV - Tabelas de classes de palavras (pré-teste)

Texto: Fábula 01 (06 cognatos)	Número de ocorrências	Texto: Notícia 01 (06 cognatos)	Número de ocorrências
substantivos	56	substantivos	76
adjetivos	15	adjetivos	23
verbos	65	verbos	37
advérbios	14	advérbios	13
pronomes	44	pronomes	33
artigos	41	artigos	30
numerais	3	numerais	8
preposições	26	preposições	45
conjunções	14	conjunções	8
interjeições	0	interjeições	0
<b>Total de palavras:</b>	278	<b>Total de palavras:</b>	273

Texto: Fábula 02 (15 cognatos)	Número de ocorrências	Texto: Notícia 02 (15 cognatos)	Número de ocorrências
substantivos	60	substantivos	72
adjetivos	26	adjetivos	35
verbos	58	verbos	39
advérbios	20	advérbios	10
pronomes	43	pronomes	32
artigos	41	artigos	27
numerais	3	numerais	9
preposições	16	preposições	36

conjunções	14	conjunções	12
interjeições	1	interjeições	0
<b>Total de palavras:</b>	282	<b>Total de palavras:</b>	272

**APPENDIX XXV - Tabelas de classes de palavras (treinamento)**

Texto: Fábula 01 (09 cognatos)	Número de ocorrências
substantivos	46
adjetivos	24
verbos	74
advérbios	15
pronomes	41
artigos	34
numerais	1
preposições	22
conjunções	20
interjeições	0
<b>Total de palavras:</b>	<b>277</b>

Texto: Notícia 01 (09 cognatos)	Número de ocorrências
substantivos	74
adjetivos	27
verbos	48
advérbios	12
pronomes	29
artigos	27
numerais	7
preposições	31
conjunções	10
interjeições	0

<b>Total de palavras:</b>	265
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## APPENDIX XXVI - Tabelas de classes de palavras (pós-teste)

Texto: Fábula 01 (06 cognatos)	Número de ocorrências	Texto: Notícia 01 (06 cognatos)	Número de ocorrências
substantivos	52	substantivos	56
adjetivos	31	adjetivos	33
verbos	62	verbos	51
advérbios	23	advérbios	17
pronomes	44	pronomes	35
artigos	19	artigos	25
numerais	2	numerais	7
preposições	22	preposições	30
conjunções	13	conjunções	11
interjeições	1	interjeições	0
<b>Total de palavras:</b>	269	<b>Total de palavras:</b>	265

Texto: Fábula 02 (15 cognatos)	Número de ocorrências	Texto: Notícia 02 (15 cognatos)	Número de ocorrências
substantivos	55	substantivos	61
adjetivos	19	adjetivos	42
verbos	62	verbos	41
advérbios	30	advérbios	14
pronomes	50	pronomes	31
artigos	28	artigos	22
numerais	2	numerais	12
preposições	17	preposições	39

conjunções	19	conjunções	18
interjeições	0	interjeições	0
<b>Total de palavras:</b>	282	<b>Total de palavras:</b>	280

**APPENDIX XXVII - Tabelas de frequência de *content words* pelo *e-lexicon* (fábulas do pré-teste)**

Texto: Fábula 01 (83 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)		Texto: Fábula 02 (94 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)
needed	94,470		opening	38,430
see	2.556,730		says	320,710
search	48,370		saw	402,490
scattered	3,730		said	1.108,450
saw	402,490		roses	14,180
said	1.108,450		reply	4,800
rice	15,080		question	198,350
portion	4,330		punished	10,310
picked	69,290		prudent	1,610
noise	34,880		problem	330,060
net	15,550		pleasant	21,020
set	231,470		plan	145,730
mouse	19,120		seems	167,550
moral	13,510		mouth	104,410
long	675,160		morning	439,000
lived	66,040		moral	13,510
led	24,020		may	511,370
leader	31,160		lived	66,040
landed	12,800		lion	15,350
king	129,250		life	796,650
is	9.013,000		last	723,100

tree	65,000	killing	77,750
work	798,020	killed	290,040
wings	19,670	throat	36,020
were	1.662,820	years	568,690
went	411,510	wolf	20,270
was	5.654,730	wise	28,470
unity	2,710	wife	348,920
united	50,270	wide	23,800
trying	448,020	wanted	502,270
tried	186,840	unpleasant	6,100
including	27,550	turn	306,470
trapped	20,200	trapped	20,200
tired	112,650	told	699,590
time	1.958,630	toady	0,220
thanked	3,800	is	9.013,000
support	50,730	thought	808,470
stronger	19,100	tell	1.724,490
strength	36,920	sweet	145,200
speed	41,250	stay	515,650
smallest	3,250	spared	3,310
could	1.629,590	smells	27,270
flew	15,390	smell	83,140
fell	73,000	situations	7,100
faithful	9,120	situation	82,490
explained	11,730	sheep	13,430
encouraged	3,290	breath	44,920



eat	251,880	days	305,730
distance	25,610	coughed	0,590
day	801,820	companies	11,390
cut	229,760	clever	27,270
flock	4,650	cleared	16,510
city	169,100	check	278,980
caught	93,940	certain	85,370
carrying	28,450	cave	13,980
can	5.247,450	can	5.247,450
called	340,020	came	463,730
began	32,510	called	340,020
be	5.746,760	dear	223,430
approaching	12,800	been	1.736,730
agreed	35,920	became	47,750
further	52,750	be	5.746,760
idea	359,040	bad	545,180
hunter	18,350	away	730,900
high	195,000	attacked	23,900
hiding	43,270	asked	216,250
help	921,120	argument	17,000
heard	387,750	answering	14,020
happy	333,200	answer	176,200
had	1.675,920	animals	39,080
gnaw	0,370	friend	419,290
get	4.583,760	irritated	1,370
advised	5,240	involve	6,470

freed	3,730	inadequate	1,860
free	177,530	honest	72,330
found	396,000	hearing	44,730
food	154,430	heard	387,750
follow	123,200	having	289,250
fly	85,000	have	6.161,410
fluttered	0,060	happened	490,080
flown	4,550	growled	0,120
doves	1,000	go	3.793,040
<b>Média</b>	<b>614,959</b>	alert	20,610
		fox	21,610
		forest	18,880
		fate	26,960
		fact	172,570
		end	265,860
		embarrassed	21,430
		do	6.135,590
		did	2.341,370
		dense	2,120
		roared	0,330
		<b>Média</b>	<b>621,867</b>

**APPENDIX XXVIII - Tabelas de frequência de *content words* pelo *e-lexicon* (notícias do pré-teste)**

Texto: Notícia 01 (99 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)	Texto: Notícia 02 (94 content words - nouns, adjectives and verbs)	Índice de frequência (por milhão)
path	24,550	pop	67,470
shift	22,820	show	488,350
shared	10,470	shore	19,860
share	69,510	set	231,470
serving	11,690	said	1.108,450
self	14,160	rock	86,160
season	31,470	release	36,290
row	26,330	questioned	5,750
relationships	11,940	put	828,450
presented	5,780	proud	83,630
performance	21,820	project	37,390
peace	69,610	program	42,630
show	488,350	single	72,080

new	723,780	pleased	28,530
named	69,880	pair	37,250
music	151,650	news	164,690
months	163,020	new	723,780
reflections	22,200	native	8,250
loved	110,330	music	151,650
love	1.114,980	moral	13,510
looking	432,670	month	95,180
look	1.947,270	Monday	33,290
lights	56,410	minimum	8,140
life	796,650	message	91,510
theme	13,920	unique	13,650
year	277,920	years	568,690
world	455,220	year	277,920
work	798,020	writers	5,940
words	122,020	world	455,220

winning	23,370	working	250,490
was	5.654,730	worked	115,240
using	69,020	will	2.123,650
touching	17,410	went	411,510
told	699,590	was	5.654,730
times	220,020	wage	3,120
time	1.958,630	voice	86,160
latest	18,730	may	511,370
tells	52,250	track	55,750
studio	23,330	title	18,570
story	220,780	tests	23,470
stores	9,510	sure	1.099,820
spirits	16,140	started	187,570
songs	22,200	star	81,350
soft	32,020	spring	31,310
singer	15,690	sounds	156,270

sing	97,590	songs	22,200
shows	41,510	song	93,690
changing	26,250	classic	16,160
done	485,040	famous	45,020
do	6.135,590	excellent	52,710
disease	26,180	engaged	26,020
died	157,220	edition	4,880
despair	5,860	earlier	39,410
delayed	5,370	duet	1,290
crash	28,650	drop	130,610
could	1.629,590	disease	26,180
consciousness	8,100	country	161,840
concert	17,550	company	147,200
coming	527,020	comes	228,550
dropped	48,670	friend	419,290
chance	241,240	celebrating	10,430

ceremony	15,820	career	45,200
busy	106,530	brothers	47,060
business	321,000	brings	35,120
book	176,980	body	195,530
blow	97,570	been	1.736,730
bird	45,450	be	5.746,760
beginning	63,120	bat	20,630
been	1.736,730	back	2.009,160
awful	63,410	are	5.209,250
get	4.583,760	am	1.106,630
journey	19,940	host	15,020
is	9.013,000	making	222,530
including	27,550	lot	569,920
hours	214,880	looked	120,900
host	15,020	limited	11,000
hope	320,630	language	35,100

hits	20,000	joined	16,490
help	921,120	join	83,430
has	1.133,920	job	413,000
gives	64,510	including	27,550
getting	484,690	impact	9,410
addition	7,750	huge	48,370
gave	243,690	album	10,240
Friday	47,630	have	6.161,410
free	177,530	happy	333,200
finding	37,940	had	1.675,920
feel	627,240	great	820,860
eye	111,780	god	903,160
backgrounds	7,020	glad	171,370
expected	33,250	giving	110,060
energy	32,900	gives	64,510
emotive	21,200	girlfriend	76,100



<b>Média</b>	<b>509.601</b>	get	4.583,760
		<b>Média</b>	<b>538.898</b>

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**APPENDIX XXIX - Tabelas de frequência de *content words* pelo *e-lexicon* (fábula e notícia do treinamento)**

Texto: Fábula 01 (86 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)	Texto: Notícia 01 (101 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)
presuming	0,470	progress	21,250
slept	35,490	social	33,390
short	85,630	single	72,080
scared	133,390	singing	44,730
run	350,550	said	1.108,450
rival	3,780	responded	2,710
ran	84,240	released	17,290
raced	1,310	release	36,290
race	61,900	relationship	67,690
rabbit	20,940	record	85,590
quit	90,100	quick	108,670
slow	76,020	put	828,450
point	236,530	proud	83,630

persisted	0,270	solo	8,550
passed	51,590	pressure	53,120
opponent	4,710	pop	67,470
nice	649,510	people	1.102,980
nap	12,650	old	608,940
moral	13,510	new	723,780
matter	370,590	networks	2,120
longer	98,940	need	1.294,900
little	1.446,390	music	151,650
underestimate	5,060	most	350,760
woke	26,350	months	163,020
win	134,650	month	95,180
were	1.662,820	Thursday	24,160
went	411,510	year	277,920
weakest	1,270	wrote	71,160
was	5.654,730	writing	55,920

walking	75,020	woman	434,630
waiting	211,120	were	1.662,820
view	38,530	week	238,510
victory	21,450	was	5.654,730
line	206,180	upcoming	1,730
turtle	17,040	understanding	21,900
trying	448,020	trying	448,020
tired	112,650	titled	0,690
time	1.958,630	may	511,370
thought	808,470	tells	52,250
take	1.891,040	supposed	252,250
surprise	88,900	success	27,250
stop	707,270	streamed	0,160
step	118,670	started	187,570
speed	41,250	star	81,350
bushes	4,880	stamp	5,920

does	666,710	spread	31,290
decided	88,650	spot	61,570
day	801,820	sounds	156,270
could	1.629,590	song	93,690
confused	32,410	debut	2,590
cheered	1,220	giving	110,060
chance	241,240	girl	557,120
challenge	19,860	former	18,270
celebrating	10,430	follow	123,200
carried	20,120	fits	12,820
fast	137,450	felt	119,820
boasting	0,650	feeling	168,180
being	485,900	failed	28,760
began	32,510	expected	33,250
be	5.746,760	driver	47,370
assured	6,200	depicted	0,410

animals	39,080	go	3.793,040
ahead	198,330	chart	9,470
achievement	3,490	characteristics	2,000
achieve	7,330	boom	21,800
accepted	15,710	billboard	1,350
halfway	13,290	been	1.736,730
let	2.419,240	be	5.746,760
laughing	52,290	approval	8,390
kept	89,390	apple	23,670
judge	79,670	am	1.106,630
joke	73,020	album	10,240
imagining	4,840	affair	29,450
hot	189,840	interview	29,510
have	6.161,410	lyrics	5,080
hard	307,840	love	1.114,980
happy	333,200	lost	274,000

able	159,900	listeners	1,750
had	1.675,920	license	32,060
great	820,860	let	2.419,240
got	3.306,490	lesson	32,240
goal	16,750	launching	2,390
full	166,900	journey	19,940
friends	305,450	January	6,690
found	396,000	is	9.013,000
forward	72,330	achievement	3,490
finish	98,920	interpret	2,450
<b>Média</b>	<b>521,874</b>	immense	1,610
		huge	48,370
		hot	189,840
		hit	275,000
		heartbreak	2,200
		having	289,250

	has	1.133,920
	hard	307,840
	guess	453,980
	got	3.306,490
	<b>Média</b>	<b>517,139</b>



**APPENDIX XXX - Tabelas de frequência de *content words* pelo *e-lexicon* (fábulas do pós-teste)**

Texto: Fábula 01 (93 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)	Texto: Fábula 02 (90 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)
moral	13,510	remove	21,250
ran	84,240	nice	649,510
possess	5,490	recompense	0,250
perceive	1,450	reach	56,920
paused	0,250	questioned	5,750
panic	21,840	putting	67,980
ought	80,750	put	828,450
opened	33,840	pull	146,450
needed	94,470	promoting	1,800
mouth	104,410	promised	62,140
mouse	19,120	porridge	0,820
mother	479,920	objects	8,710
		returns	8,760

realized	35,960	mutilation	0,940
mom	430,390	move	418,140
meaningful	3,450	moral	13,510
make	1.387,750	meals	7,920
loud	39,820	may	511,370
looking	432,670	looked	120,900
view	38,530	long	675,160
lived	66,040	lived	66,040
little	1.446,390	lake	36,000
lips	31,180	knew	368,960
life	796,650	thoughtful	7,800
licking	3,430	would	1.767,880
swallow	12,730	wolf	20,270
world	455,220	will	2.123,650
wish	235,120	went	411,510
wide	23,800	was	5.654,730

was	5.654,730	understand	482,450
waiting	211,120	uncomfortable	15,650
used	344,140	turning	40,410
took	342,240	tried	186,840
told	699,590	throat	36,020
time	1.958,630	kind	590,690
take	1.891,040	stuck	66,650
tail	23,900	staying	59,610
learn	118,570	stayed	32,710
staring	23,450	started	187,570
speak	187,180	spoke	38,630
sound	143,390	skilled	2,370
smiling	17,200	situation	82,490
skirting	0,100	serving	11,690
shouted	2,250	selfish	15,900
should	1.061,940	reward	18,020

sharp	23,780	beak	2,100
second	284,570	day	801,820
scared	133,390	crosswise	0,020
reminded	8,290	crane	33,610
cats	19,730	could	1.629,590
decided	88,650	competent	2,430
day	801,820	compensate	2,430
cried	12,980	company	147,200
cozy	5,650	called	340,020
could	1.629,590	bring	327,160
comes	228,550	bone	26,060
clinging	1,120	been	1.736,730
claws	4,430	did	2.341,370
child	157,650	awful	63,410
cheese	39,040	away	730,900
change	240,350	assured	6,200

deep	76,390	asked	216,250
cat	66,330	apprehensive	0,550
caring	7,040	anxious	14,100
can	5.247,450	animal	45,490
brisk	1,040	allowed	44,820
board	64,160	alive	154,470
bit	235,040	afraid	247,670
biggest	40,880	grant	32,550
big	682,820	kill	452,570
best	404,370	keep	702,860
beady	0,710	is	9.013,000
baby	509,370	insatiable	0,980
handle	108,410	imagine	81,040
language	35,100	help	921,120
knew	368,960	head	371,510
is	9.013,000	has	1.133,920

intelligent	13,510	had	1.675,920
imply	2,690	grasping	0,750
idiom	0,240	acquire	2,650
hungry	77,080	gained	5,180
huge	48,370	friends	305,450
house	514,000	festivals	0,710
hole	58,220	felt	119,820
heroin	9,820	favor	70,760
amazing	81,710	fake	36,330
had	1.675,920	expect	103,900
growing	29,940	eat	251,880
greatest	48,310	do	6.135,590
ginger	6,410	disappeared	28,800
fruitful	0,920	<b>Média</b>	<b>514,366</b>
froze	4,240		
frightful	1,160		
friends	305,450		
do	6.135,590		

did	2.341,370
<b>Média</b>	<b>536,353</b>

**APPENDIX XXXI - Tabelas de frequência de *content words* pelo *e-lexicon* (notícias do pós-teste)**

Texto: Notícia 01 (99 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)	Texto: Notícia 02 (112 content words - nouns, adjectives, and verbs)	Índice de frequência (por milhão)
possesses	1,330	album	10,240
set	231,470	announced	5,670
scenes	8,390	autobiography	0,800
rising	8,410	back	2.009,160
respect	71,450	bad	545,180
releasing	2,860	band	53,410
release	36,290	be	5.746,760
ready	387,800	been	1.736,730
rap	13,040	billboard	1,350
ranks	3,900	black	167,940
preview	1,430	bloody	38,470
potential	18,820	book	176,980
signed	36,060	charts	6,530



performers	1,220	cheering	13,530
part	261,510	choirboy	0,220
old	608,940	comeback	3,330
new	723,780	coming	527,020
network	16,530	costs	15,780
months	163,020	days	305,730
mix	16,350	departing	1,550
meet	352,270	described	9,060
male	33,940	did	2.341,370
making	222,530	do	6.135,590
makes	241,100	dominant	1,610
threat	20,760	entertaining	5,650
year	277,920	fall	118,510
write	126,800	fierce	4,780
working	250,490	following	45,290
work	798,020	full	166,900

women	195,650	funny	218,180
was	5.654,730	gigantic	3,730
video	41,270	gone	296,760
verses	1,100	great	820,860
up	3.670,000	group	73,760
turning	40,410	had	1.675,920
time	1.958,630	have	6.161,410
mainstream	1,240	hearing	44,730
tape	68,840	high	195,000
stronger	19,100	history	83,920
stated	3,610	hit	275,000
state	107,840	huge	48,370
started	187,570	is	9.013,000
star	81,350	joined	16,490
sophomore	2,860	joyful	1,490
singers	3,140	lead	83,250

singer	15,690	length	7,020
sing	97,590	life	796,650
born	83,690	listening	62,840
follow	123,200	lives	139,690
female	31,610	long	675,160
feel	627,240	lot	569,920
famous	45,020	loved	110,330
due	44,610	lovers	11,220
dominated	1,470	material	22,140
comes	228,550	media	22,290
city	169,100	modern	18,240
can	5.247,450	Monday	33,290
business	321,000	most	350,760
brand	13,960	need	1.294,900
Friday	47,630	new	723,780
big	682,820	nights	33,860

best	404,370	numerous	3,590
being	485,900	October	9,920
beginning	63,120	ones	101,510
be	5.746,760	option	14,430
based	26,610	original	28,240
artist	28,630	own	459,200
are	5.209,250	performers	1,220
ambassador	13,510	post	32,430
am	1.106,630	power	149,020
huge	48,370	priced	0,650
living	156,530	problems	77,080
level	51,630	published	7,200
last	723,100	raw	10,180
label	6,880	reached	24,730
killing	77,750	recording	14,670
July	12,080	regained	1,240

join	83,430	release	36,290
is	9.013,000	returned	24,760
interview	29,510	reunited	1,780
including	27,550	rock	86,160
impressive	16,960	rocking	4,370
age	79,200	role	18,220
hop	19,160	roll	63,270
hip	15,410	satisfactory	3,000
head	371,510	says	320,710
happened	490,080	set	231,470
guest	39,940	sharp	23,780
grateful	26,570	signed	36,060
golden	23,270	singer	15,690
getting	484,690	strong	86,860
gathering	7,250	talent	26,120
game	233,840	tales	7,040

<b>Média</b>	<b>536,311</b>	tells	52,250
		topping	0,880
		traditional	8,140
		version	16,240
		victory	21,450
		voice	86,160
		warm	52,140
		was	5.654,730
		will	2.123,650
		work	798,020
		writing	55,920
		written	44,060
		wrote	71,160
		years	568,690
		<b>Média</b>	<b>519,191</b>