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CLOZE TEST DEVELOPMENT AND APPLICATION WORKSHOP: A PEDAGOGICAL SUGGESTION TO ASSESS STUDENTS' READING PROFICIENCY

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ABSTRACT

This article is the result of a workshop presented to elementary school teachers to analyze the impact of the COVID-19 pandemic on students' reading. It is also an action to fit the 4th objective of the United Nations Organization's (UNO) sustainable development goal, related to quality education. The workshop was divided into two parts: introducing the four main brain lobes and the areas responsible for various human activities, including reading (Dehaene, 2012; Morais, 1996), and describing the Cloze background, functioning and organization, kinds of readers, and how to identify them through this pedagogical tool (Taylor, 1953; 1957; Bormuth, 1968). It is hoped that teachers will use this procedure to help improve students' reading and teachers' practices.
Key words: COVID-19, quality education, Cloze procedure, reading comprehension.

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OFICINA DE DESENVOLVIMENTO E APLICAÇÃO DO TESTE CLOZE: UMA SUGESTÃO PEDAGÓGICA PARA AVALIAR A PROFICIÊNCIA LEITORA DOS ESTUDANTES.

RESUMO
Esse artigo é resultado de um workshop para docentes do ensino fundamental, que teve como objetivos analisar os impactos causados pela pandemia de COVID-19 na leitura dos estudantes e alcançar uma educação de qualidade, 4º objetivo de desenvolvimento sustentável da Organização das Nações Unidas (ONU). O workshop teve duas partes: a apresentação dos quatro lobos cerebrais e das áreas responsáveis por várias atividades humanas, incluindo a leitura (Dehaene, 2012; Morais, 1996), e a descrição do histórico do Teste Cloze, seu funcionamento, organização, tipos de leitores, e como identificá-los através dessa ferramenta pedagógica (Taylor, 1953; 1957; Bormuth, 1968). É esperado que os docentes a empreguem para ajudar a leitura dos estudantes e suas práticas docentes.
Palavras-Chave: COVID-19, educação de qualidade, procedimento Cloze, compreensão leitora.

TALLER DE DESARROLLO Y APLICACIÓN DEL TEST CLOZE: UNA SUGERENCIA PEDAGÓGICA PARA EVALUAR LA COMPETENCIA DE LECTURA DE LOS ALUMNOS.

RESUMEN:
Este artículo es el resultado de un taller para profesores de enseñanza primaria, que tuvo como objetivo analizar los impactos causados por la pandemia del COVID-19 en la lectura de los alumnos y alcanzar una educación de calidad, 4º objetivo de desarrollo sostenible de la Organización de las Naciones Unidas (ONU). El taller tuvo dos partes: una presentación de los cuatro lóbulos cerebrales y las áreas responsables de diversas actividades humanas, entre ellas la lectura (Dehaene, 2012; Morais, 1996), y una descripción de la historia del Test Cloze, su funcionamiento, organización, tipos de infractores y cómo identificarlos a través de esta herramienta pedagógica (Taylor, 1953; 1957; Bormuth, 1968). Se espera que los profesores lo utilicen para ayudar a la lectura de los alumnos y a sus prácticas pedagógicas.
Palabras clave: COVID-19, educación de calidad, procedimiento Cloze, comprensión lectora.

1. INTRODUCTION

The Cloze development and application workshop is one of the actions organized by the *Impactos da Pandemia* group,[1] created in 2021 by researchers from the *Universidade Federal de Santa Catarina, Pontifícia Universidade Católica do Rio de Janeiro, Universidade Federal de Sergipe, Universidade Federal do Ceará*, and *Universidade Federal do Rio Grande do Norte*. The project aimed to analyze the impacts of the COVID-19 pandemic on children's language development and reading skills.

Since its inception, the group has undertaken various initiatives and efforts to support teachers in addressing the challenges of these processes in the school. Notable examples of their work include two papers: *Eficiência na leitura: medidas de precisão e velocidade entre alunos do Colégio de Aplicação da Universidade Federal de Sergipe* (Cardoso, Menezes, Freitas & Freitag, 2024) and a submitted paper to Authorea titled "The use of the Cloze test in reading comprehension assessment in Brazil: post-pandemic challenges" (Freitas, Santos & Freitag, 2024).

As part of these actions, in 2023, master's and Doctorate students from UFS presented this workshop to some public school Portuguese language teachers as a suggestion for a viable, accessible, reproducible activity. It offered the theoretical concepts of the *Cloze* Test related to its functioning, procedures, and goals, including formats such as filling in blanks, matching the right answer to its theory or explanation, or even multiple-choice activities. It can be a helpful tool for measuring large and small groups' grammatical knowledge, vocabulary, and text comprehension. It is an important, effective pedagogical instrument that fits objective number 4 of the United Nations Organization's (UNO) Sustainable Development Goal, related to quality education.

According to UNO, 250 million girls and boys are excluded from access to education, which means that they do not have the opportunity to attend school or classes. This represents a huge problem for the whole world because education is one of the ways to make a person a real citizen, aware of their rights and duties, and quality education also provides an opportunity for this person to improve their life and environment. Considerable effort is crucial in attenuating these issues, especially through increased investiment and public policies. This is important for planning and performing popular and affordable actions to achieve quality education.

1 The project "Impactos da Pandemia de COVID-19 na Linguagem da Criança e do Adulto: Foco no Desenvolvimento e na Aprendizagem da Leitura" (Impacts of the COVID-19 Pandemic on the Language of Children and Adults: Focus on Development and Reading Learning) is funded by the Edital de Seleção Emergencial IV do Programa Estratégico Emergencial de Combate a Surtos, Endemias, Epidemias e Pandemias (Emergency Selection Call IV of the Strategic Emergency Program to Combat Outbreaks, Endemics, Epidemics, and Pandemics). This project is linked to the Programa de Desenvolvimento da Pós-Graduação (PDGP) - Impactos da Pandemia (Graduate Development Program - Impacts of the Pandemic), call CAPES 12/2021, and is supported by other federal institutions.
At the Universidade Federal de Sergipe, the project is developed through the subproject "Linguagem e Emoções no Cenário Educacional Pós-Pandêmico: Tecnologia de Avaliação e Monitoramento" (Language and Emotions in the Post-Pandemic Educational Scenario: Assessment and Monitoring Technology), funded by the call FAPITEC/SE/SEDUC 09/2022 (Cardoso, Menezes, Freitas & Freitag, 2024).

The Cloze Test workshop can be an accessible tool for teachers to work in schools and improve their practice. It was a suggested to work on students' reading asymmetries and teachers' classroom practices to increase the results. This procedure has been used in English proficiency exams to measure second-language students' abilities, and it also serves to check students' native reading proficiency. In Brazil, although most teachers apply it in different formats, the origin of Cloze test is unfamiliar, as to how it works, and its real purposes. This paper aims to share this experience and inspire other teachers to apply it.

The Brazilian basic education system periodically assesses large-scale evaluations intended to assess public-school students. According to Machado (2018), these tests "aim to assess the quality of the Brazilian educational system,"[2] and they are part of the *Sistema de Avaliação da Educação Básica (SAE-B)*-System of Basic Education Assessment, organized by the *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (Inep). These large-scale assessments include examinations such as *Prova Brasil de Língua Portuguesa* and *Avaliação Nacional da Alfabetização* (ANA), both of which measure the educational levels in basic schools.

In addition to other characteristics, these assessments share the feature that they are prepared according to the *Base Nacional Curricular Comum* (BNCC) or Brazilian National Curricular Base (NCCB), a document created by the Brazilian Ministry of Education that establishes common "competencies and guides" (Brasil, 2017), but with a different curriculum for each grade. This document presents the orientations to be followed at diverse educational levels in diverse teaching institutions. Thus, the BNCC shows the general competencies of basic education from junior high, starting in elementary school, until the last basic school level, high school. This means that, since the beginning of school life, the study of different languages (oral, written, gesture, etc.) and their decoding have been prescribed, similar to various types and text genres. At the high school level, the suggestion is to integrate and consolidate what has been learned through basic education.

Azevedo and Damaceno (2017) analyze this document to discuss "how the area of languages, and particularly of the Portuguese language, is conceived in the National Curricular Common Base". They highlight the importance of this document due by aligning teachers' practices, and the organization of a national curriculum according to government policies, methodologies, and educational objectives. However, the authors highlight the theoretical differences encountered from the first to the last version, reflecting on the disadvantages of a completely integrated curriculum that guides large-scale assessments, which does not allow teachers to work on students' heterogeneity.

Prova Brasil, ANA, and others are assessments directed at large-scale groups, and all of these tests measure some students' abilities along with the school subjects that are part of the national curriculum. To answer these tests, students need to be prepared for numerous questions and answer them quickly and accurately, because these exams have a set time for everyone. In addition to other abilities and kno-

2 This excerpt is from Machado's (2018) doctoral thesis, titled "Fluência em Leitura Oral e Compreensão em Leitura: Automaticidade na Decodificação para a Compreensão Leitora" (Oral Reading Fluency and Reading Comprehension: Automaticity in Decoding for Reading Comprehension).

wledge, reading comprehension is the most important skill because it serves all other tests. Reading allows students to understand exactly what is expected.

Teachers frequently promote another type of large-scale assessment in their classroom routines. They are supposed to prepare evaluations, apply them, check students' results, and give feedback as soon as possible. Despite being large and heterogeneous groups, the exams are prepared according to the specific school level, and the scores will present important information about student's education. Thus, considering that the classroom is an environment for reinforcing learning and realizing the importance of assessing student's reading comprehension, we propose a workshop on developing and applying the Cloze Test or Cloze Procedure.

The Cloze Test appeared in 1953, and in the following decades, studies of the Cloze Test as a "measure of overall ESL proficiency" (Brown, 2013) have increased. Since its creation, the popularity of this test has grown, and questions such as filling in the gaps with missing words, filling in the blanks with the right concept contained in a box, or even reading a test and filling in the missing words by choosing the best option among the presented alternatives are largely used in different types of written exams, and are also part of the Cloze procedure. Brown (1980) states that this kind of assessment is used "in both English as a second language (ESL) and foreign language programs," and this method can also be applied to other languages (Sõhngen, 2002). According to Cunha (2009), this kind of test is used as a foreign language proficiency test like TOEFL and also as a "selection exam for various universities" (Abreu, Garcia, Hora, & Souza, 2017).

Despite being a consolidated procedure and largely used intuitively by teachers in Brazil and other countries, the exact name of the Cloze Test or its process is not familiar. This was the main reason for the proposal of this workshop. The Cloze test can be helpful in many ways, such as learning a foreign language or measuring students' proficiency in their native language. The results may also help create strategies for diverse levels of teaching (Suehiro & Boruchovitch, 2016). The use of the Cloze procedure along with other teaching techniques may also aid in the improvement of the reading abilities required for our daily lives and ordinary demands such as getting information from labels, accessing the Internet, filling out a job interview form, *etc*., which are both essential to other school subjects.

Teachers at any level of education can create this procedure according to their students' levels, groups, and ages, as they adapt to the tests. Suehiro and Boruchovitch (2016) considered it a simple and flexible procedure, claiming that there is nothing between the reader and the text because the test is its text. This can be a useful tool for teachers to improve their pedagogical practice by assessing students' reading and comprehension and helping them realize what they already know.

Filling in the gaps may seem straightforward at first glance, but appearances are deceiving: executing this type of task requires not only processing the words that are not omitted but also inferring words that potentially fill the gap, respecting their syntactic and semantic context (Cardoso & Menezes, 2023).

The Cloze procedure can help assess students' linguistic abilities, memory, and knowledge of the world (Suehiro & Boruchovitch, 2016). In addition, the Cloze Test does not require different materials or

extra costs. The only extra material teachers need is to provide "copies of all reproduced passages to all subjects" (Taylor, 1953).

As the project approaches the effects of the pandemic on language development and reading, it aims to contribute to basic education teachers' continuous training, allowing them to deal with reading and learning processes through these hard times (Cardoso, Menezes, Freitas & Freitag, 2024). This was a tough period because schools in Brazil and all around the world were closed, and students had to study daily at their homes remotely, with teachers and parents trying to teach reading and writing, in addition to dealing with the lack of materials and, for some of them, no Internet access. Most students had neither technological devices nor the right conditions to watch or participate in remote classes.

The workshop's development arose from Gelins (*Grupo de Estudos em linguagem, Interação e Sociedade)* group meetings, after accessing data related to reading asymmetries in Brazil, while listening to basic education teachers. It aimed to contribute to basic Brazilian education using materials provided by the school, which could be practical, and adaptable, providing data to make interventions as soon as possible.

The workshop was held at *Colégio Estadual Professora Glorita Portugal, São Cristóvão* City, in August 2023. At the end of that month, the schoolteachers applied the cloze test to their elementary school students, from 6th to 9th grades, and the results were presented some months ahead.

This paper describes a two-part workshop at *Colégio Estadual Professora Glorita Portugal,* especially for elementary school teachers, presenting some theoretical aspects of the Cloze Test or Cloze Procedure. The first part of the workshop briefly mentions how our brain processes information when we read, which parts are involved, how the printed image passes through our eyes, how we process the information that we read, and the three kinds of readers according to Bormuth's scale (1968). The second part deals with the concepts of the Cloze Test or Cloze procedure, its origins, how to elaborate, and how to apply them. How to calculate the results and how to deal with them are also part of this workshop.

2. HOW DOES THE READING PROCESS HAPPEN?

The concept of reading varies. Reading cannot be considered a natural process, or the "most natural activity in the world," because it is not only concerned with decoding letters and joining them to create words or sentences; it is more than that. To read, it is necessary to comprehend, and to reach this level, the reader needs to be able to use reading strategies, such as linguistic knowledge. This ability is related to the language grammar used to recognize the word classes and identify their meaning and functionality (Freitag, 2023).

According to Smith (2004), reading, in general, does not need to be taught because it is how people interpret what is around them, what they can see and understand, and even how their feelings and emotions can be part of reading. Another concept, in opposition to the previous one, relates reading to the "treatment of graphical signals" (Morais, 1996), indicating that this ability needs to be taught and is

concerned with understanding letters and words. By reading, we acquire information, such as an input, and transform the data into another representation, such as an output (Morais, 1996).

Leal and Menezes (2023) state that "reading occurs all the time", whatever the device is, and once learned, it seems so spontaneous that we do not realize all the effort and brain actions to accomplish this process. Reading also changes our brain architecture by modifying the cortical networks of vision and language processing (Dehaene, 2013), which means that once we learn how to read, this skill is acquired, so we cannot lose or undo it. We achieve this knowledge for the rest of our lives, and during our lifetime, we can connect the texts we already read with new ones and new information.

Perfetti and Stafura (2014) assumed that there are "three classes of knowledge sources used in reading": linguistic knowledge (what we know about the language and its structure, its phonology, syntax, and morphology), orthographic knowledge (its written and phonic system, its orthographic and phonological units), and general knowledge (word identification, meaning and form selection, comprehension processes, and reader background, including text genres and text formats). The union of these three types of knowledge is one reason why this cannot be undone.

In this paper, we consider reading as a set of abilities: the decodification of what is written, what is printed in a source, or as a skill learned and improved through school years. The second considers our contact with others and our life experiences as a variety of information, contacts, and relationships. It is also an activity based on our background and connections with other readings, behaviors, cultures, and traditions. We also recognize this as a human cognitive activity.

2.1 Our brain

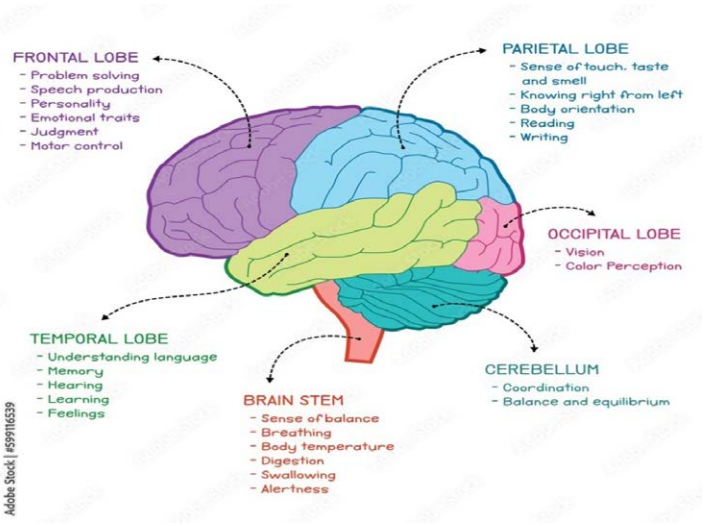
In the past, studying the human brain was only possible after somebody's death, so the brain could be dissected and researched only after that. Nowadays, technology and "a growing number of tools" (Brennan, 2022) allow for images of the brain and blood flow, measuring their functions "in vivo". Examples include magnetic resonance imaging (MRI), functional MRI (fMRI), electroencephalography (EEG) and others. Through these images and research, it is possible to determine that the brain can operate infinite functions, and one of them is to transform graphical signs into meaning.

The brain's geography (Brennan, 2022; Dehaene, 2012) is divided into four lobes: the frontal, parietal, temporal, and the occipital lobes. They work together, and they have other functions as well, although each one has some specific tasks related to reading: I) the frontal lobe is responsible for the meaning and association of words; II) the parietal lobe is responsible for sensory associations (touch, pressure, temperature, and pain), the interpretation of symbols, and the capacity to assess height, shape, and distance; III) the temporal lobe is related to hearing, emotions, learning, and memory; and IV) the occipital lobe refers to the reading of words.

The occipital lobe analyzes the written images, checking and differentiating them from one another, sending this information to the other brain's regions, so they "decode into acoustic images and mea-

ning." (Dehaene,2012). This is the process of recognizing words that occur through our eyes and send information to the brain. As a result, written information can be decoded and read. Figure 1 below shows the geography of the brain divided into four lobes and some of their functions:

Figure 1- The brain lobes

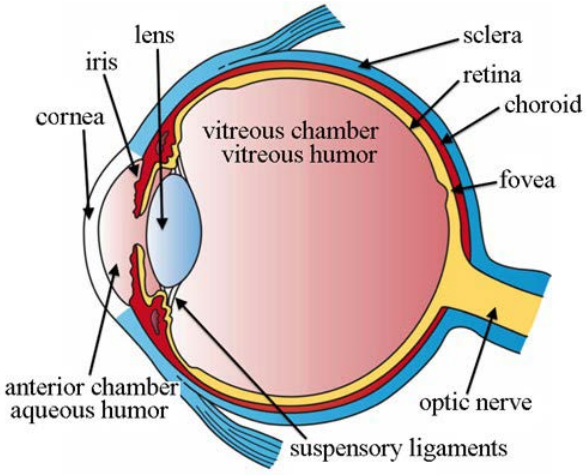


Source: https://stock.adobe.com/br/search?k=lobe&asset_id=599116539.

2.2 Our eyes

The human eye catches the image through our retina, and then the image is sent to the fovea, the central region of the retina, favorable for reading (Deahene, 2012), and the text is scanned. The "central fovea" contains a high concentration of retinal cells called "cone photoreceptors" (Ayaga, 2023), which helps us to see colors and fine details, enabling us to read, write, and examine objects closely. Figure 2 shows the human eye, including the fovea next to the choroid and the optic nerve.

Figure 2- The human eye



Source: https://www.visioncenter.org/eye-anatomy/fovea/

Our eyes move rapidly, performing small, discrete movements called saccadic movements. During these eye movements, we cannot capture every word in a text, leading to a progressive loss of visual codification precision. This means that our eyes stare only at the point where the gaze is fixed.

When we read, our eyes focus on the image, and although the words' size, shape, and position change, we can still read and understand what is written. Dehaene (2012) names this phenomenon "perceptual invariance." This allows readers to ignore irrelevant variations, enabling us to identify words exactly as they are. Figures 3, 4, and 5 show examples of this phenomenon.

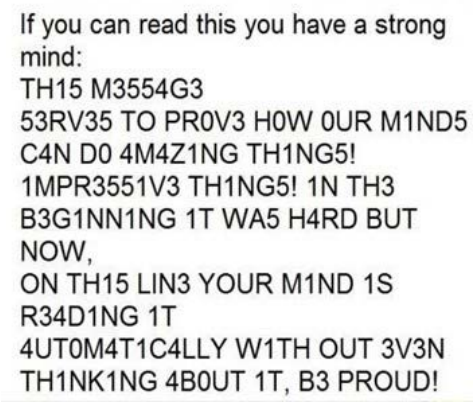
Figure 3 shows a box, and the sentence "*Oficina de Teste Cloze*" is written inside it five times. Despite the letter's different sizes, the human eye captures full information and understands its message.

Figure 3- *Oficina de Teste Cloze*

Source: created by the authors.

Figure 4 presents a five-line text containing a message coded by letters and cardinal numbers from 1 to 5. It presents letters scrambled with numbers to test the reader and proves that even when this situation occurs, a proficient reader can read it automatically.

Figure 4- A message with letters and numbers



Source: https://img.ifunny.co/images/c54fbb4d84a8f1728320cd85eba4ae30a2d72b7a40f9cccf6d762e05ddb1c944_1.jpg

Another "perceptual invariance" example can be observed below, in Figure 5. It presents the same box as in figure 1 and with the same sentence as before: "*Oficina de Teste Cloze*." Although the letter shape and position vary, the message is still the same, and our eyes capture the information and our brains decode it.

Figure 5- Oficina de Teste Cloze

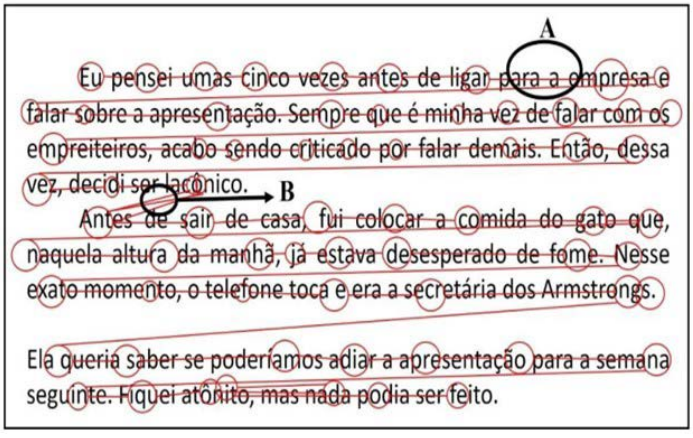
Source: created by the authors.

2.3 How does reading occur?

In languages such as Portuguese, where the written pattern is from left to right, people read texts following a "Z" format, showing that our eyes move very fast when we are reading, and this movement does not follow exactly the way the text is written. We do not read every word in the text; we skip some of them, especially the articles and prepositions.

According to Alcântara and Tejada (2023), "a pattern of eye movements follows a horizontal line from the beginning to the end of the line, and it "skips" following the diagonal line that connects the end of a line to the beginning of the next".[3] This occurs when we are already proficient readers, meaning that we can read a text and process the information, extracting orthographical information, semantics, and phonological information needed to decode and understand the text (Morais, 1996). Figure 6 presents the human eye's "Z" movement while a proficient reader decodes a text. Circled information is related to our eye fixation.

Figure 6- The "Z" eye movement



Source: Alcântara & Tejada (2023).

3 ..."um padrão de movimentos oculares que segue uma linha horizontal de princípio a fim da linha e "pula" seguindo uma linha diagonal que conecta o fim de uma linha com o início da próxima" (p.18). The quotation and image 6, forward, are part of the text A visão e o processo de leitura, by Alcântara &Tejada (2023).

Coltheart (2005) assumed that reading is information processing; it is to transform printed words into speech, or the opposite: transforming printed words into meaning. According to this author, there are two different strategies to identify a printed word: lexical and nonlexical (or phonological) routes. The first one is related to the straight activation of meaning in our mental lexicon; we are proficient readers, so we can recognize words and associate their spellings and pronunciations with their meaning. The second usually happens to non-proficient readers who need help understanding what is written. In this case, the reading is not automated, or while the reader recognizes new words, he or she must read them aloud. The same process is common for learners of new languages, who need to read loud the words to understand and learn them.

2.4 Kinds of readers

Proficient readers can read and understand printed information clearly, even when they read too fast. They do not need to read all the words to predict and comprehend the information. To differentiate the kinds of readers and explain how the reading process occurs, Morais (1996) presents three kinds of readers: beginner, skilled, and failed. I) The beginner is still becoming conscious of the relationship between sounds and written words. In addition, they have not yet achieved an orthographical lexicon. II) The skilled reader has reached reading maturity and takes the lexical route automatically at a decoding speed that allows good comprehension performance. III) An unsuccessful reader does not present all the reader skills in the learning stage. This type of reader follows a non-lexical route, and the reading is not automated. In addition, they take more time to read and present decoding problems (Morais, 1996; Machado; Freitag, 2019).

The construction of word meaning networks occurs when the reader uses his or her grammatical knowledge by recognizing the difference between lexical words, which present more semantic content and functional words, and display more grammatical information (Abreu *et al.,* 2017). Words such as verbs, nouns, adjectives, and adverbs are considered lexical and belong to the open class (Quirk, Greenbaum, Leech & Svartvik, 1985), while prepositions, articles, pronouns, conjunctions, and interjections are considered functional and belong to the closed class (Quirk *et al.*, 1985). Understanding the difference between these two kinds of words requires knowledge of their relationship to the other words within a context. Verbs and nouns are examples of terms that can present different meanings according to their contexts; in addition, they can be used alone, without complement, in opposition to prepositions or pronouns, which usually need another word to have a specific meaning.

A proficient reader does not have to read all text words; he or she guesses the content while reading because of their proficiency level. While reading, the proficient reader can "predict and anticipate meanings, formulate hypotheses, and check or refuse them" (Sõhngen, 2002). As soon as he or she recognizes a verb, they join another linguistic clue and anticipates the next word.

At this moment, they are already familiar with the language structure, and this ability is useful to understand the text as a whole and infer the missing words during the fill-in-the-blank tasks. This is the procedure of the Cloze test: the ability to fill in the blanks with the correct words. It comes from

the gestalt principle, a psychological tendency to "close familiar patterns" (Taylor, 1953), which helps diagnose reading problems or students' reading proficiency level.

3. CLOZE TEST OR CLOZE PROCEDURE

This is the second part of the workshop. The previous section discussed general concepts related to brain areas or lobes responsible for vision and reading. After that, we presented what happened to our eyes, which helped us realize the physical reading process. Three different kinds of readers were mentioned to understand that reading is a process that takes time, effort, and practice. In this article, the Cloze Test is a suggestion for teachers to use in their school routines to identify the readers they have in their classes and think of actions to help students improve their reading skills.

The Cloze Test, or procedure, was initially used in psychology studies in the second half of the 20th century. Currently, it is widely used to measure the reading proficiency of both native speakers and foreign students. Brown (1980) describes the Cloze test as follows: "It appears to be a quick, economical method of measuring overall language proficiency." Its size can vary from 50 to 250 words depending on what it is used for. It is suggested that this is a short text, and every fifth, seventh, or ninth word should be deleted. Blank spaces are supposed to be filled by students with correct or synonymous words. (Freitag, Sarmento, Costa, & Santos, 2014; Taylor, 1953; 1957)

Sohngen (2002) assumed that the Cloze procedure considers the readers' cognitive aspects, what he or she already knows, and how they connect their ideas. The test also measures specific differences in the reader's comprehension, learning success, general intelligence, and specialized technical knowledge. The gaps in the text are interrelated and contextualized.

There are different types of cloze tests: rational cloze, random cloze, grammatical cloze, multiple-choice cloze, labyrinth cloze, restricted cloze, and others (Abreu *et al.*, 2017; Suehiro & Boruchovitch, 2016). The choice of one of them depends on the teacher's objective, what he or she intends to measure, and whether the procedure has a selective or systematic gapping. Selective gapping is used for conscious practice: specific words are selected and deleted from the text. The reader is supposed to fill in the blanks with lexical or functional words, or even some concepts related to another field of study. Sistematic gapping consists of systematically deleting every 5th or 6th word of a text, independently of its grammatical class. The Cloze test style depends on the teacher or applicator's main goal.

To create a Cloze Test, the teacher can adapt a text from a school textbook, news of a magazine, newspaper, or another medium, provided that the choice and deletion of words are chosen carefully (Sõhngen, 2002). It is also suggested that the texts used are informative because they are supposed to be impersonal and related to general areas and knowledge. Texts from artificial intelligence can be used as long as their sources and information have been checked and are reliable.

Brown (1980) explains that "reliability indicates the extent to which a test is consistent or stable," and this is one of the four scoring methods the author suggests: reliability, validity (which is expressed in

a correlation coefficient), mean item facility (which indicates the average ease or items difficulty on a test and is presented in an index), and discrimination or usability (which shows how well the average item on a test separates the "high" students from the "low" students). After 25 years of test cloze studies and scoring methods, Brown (2013) assures that "research on cloze tests has been fairly inconclusive in terms of their reliability and validity." He concludes that "the acceptable-answer scoring method was the best overall method for scoring."

3.1 Creating a Cloze Test

In the first moment, an informative or narrative text can be chosen, or the teacher may adapt it, as long as it is in prose format and is from students'schoolbook. It must also be directed to the correct school year and students' ages because it is appropriate to the student's reality, knowledge, and contents that they previously studied or are studying in their grades.

Within the classroom environment, it is suggested that the text contains between 50 and 250 words; it must have a title to help students predict or have an idea of its subject or theme; the sentences must be simple, in direct order, presenting clear ideas without jokes or sentences that allow double meaning or too many interpretations. The text must not contain numbers, dates, foreign words, or acronyms (Cardoso & Menezes, 2023; Freitag *et al*., 2014) that may result in confusion, embarrassment, or discomfort. Its 16 first words are supposed to be maintained so the student can have a contextualized beginning. The word that would be the seventeenth must be deleted. After the blank space, the next four words were counted, and the fifth word was omitted.

From that moment on, the same pattern must be followed: the teacher counts every four words, deletes the one that would be the fifth, and instead, writes a line that must have the same length as the next ones. It is suggested that the line size is the same for every gap to avoid students trying to guess, at random, the word from its length without even trying to read the text. This may prevent them from using an indefinite article or a preposition, for instance, when it is supposed to write a verb, noun, adverb, etc. Before applying the test, the teacher must have the correct or exact number of students in class to provide a copy individually. Figure 7 presents the test sample used in the workshop, and its structure serves other grade tests.

Figure 7- Cloze Test applied to students in the 7th grade

Inseguranças no uso das redes sociais

O avanço das tecnologias nas redes sociais trouxe muitas mudanças positivas em nossas vidas, como a _____ de comunicação e a _____ de conectar pessoas em _____o mundo. No entanto, _____ avanço também trouxe algumas _____ e preocupações.

Uma das _____ preocupações é a privacidade. _____ o uso de dados _____ para fins publicitários, muitas _____ não sabemos quais informações _____ coletadas e como estão _____ usadas. Além disso, há _____ preocupação crescente com a _____das informações pessoais, como _____ e informações bancárias.

Outra _____ é a disseminação de _____falsas. Com a facilidade_____ compartilhamento de informações nas _____ sociais, muitas vezes não _____ distinguir o que é _____ do que é falso. _____pode levar a equívocos _____ até mesmo a danos _____ reputação de pessoas e _____ .

Source: created by the authors.

Before the application starts, teachers are advised to talk to their students about the importance of this activity, having them realize the importance of their reading process, how much they have been learning through the school year, and what they already know about words and text structure. This is not a procedure for grade students, so this advice must be clear, and they do not get nervous or worried about it.

As soon as the test begins, the teacher gives each student a copy and asks them to leave the sheet with the text facing down. They are supposed to start answering after all of them have their copy. The teacher then sets the time, and students begin reading and writing their answers. They had 30 or 40 minutes to finish the test; they were supposed to write only one word in the blank space, and the one who finished it first raises their hand. The teacher must obtain students' answers individually, or one test each time, so he or she can write down the data related to the beginning and ending times, even if more than one student finishes simultaneously. Students must begin the test at the same time, and the differences will occur at the end of the test. This data will help the teacher to calculate students' answering speed and velocity to read the text and fill in the blanks.

3.2 How do I calculate and interpret these results?

This paper considers two types of answers: correct answers and the use of synonyms. The correct answers were the words from the original text, the exact ones used in the text before their words were deleted, whether the student chose them according to the original text, and the answer was treated as correct. The second type of answer accepts synonyms. In this case, if the right word would be "make" to complete the sentence "he made a cake," for instance, and the student wrote "prepared" instead of "make," the answer would be considered correct as well.

To calculate the number of correct answers, the teacher must know the exact number of gaps, check the number of correct answers, multiply the answers by 100, and divide them by the number of gaps. The results are calculated as percentages, as shown in Figure 8:

Figure 8: Obtaining the Cloze Test scores

Example: The text has 30 gaps and students scored 15 words.

$$\mathbf{30 = 100}$$
$$\mathbf{15 = x}$$
$$30x=1500$$
$$x= 1500/ 30$$
$$x= 50\%$$

Source: created by the authors

The results showed that the student scored 50% of the correct answers, and according to the Bormuth scale (1968), he or she was at an instructional level of reading proficiency. The scale and the three reading levels are shown in Figure 9.

Figure 9: Reading proficiency levels

Classification level	Percentage of scores %
Frustration level	Up to 44% of the total text indicates some comprehension success.
Instructional level	Between 45% and 57% of the text demonstrates enough comprehension, but additional external assistance is needed.
Independent level	Superior to 57% of scores in the text, which means a level of autonomy in reading.

Source: Adapted from Freitag *et al*. (2014), from Bormuth (1968)

3.2 We have the results. What should we do?

After applying the Cloze test, obtaining the student's results, and checking their reading level, the next step was to know what is important to do to stimulate the ones who had good results, especially what to do and what activities and actions can be organized to help those with the most reading problems. With no exceptions, all students should be encouraged to read and accompany their parents.

For those considered to have a frustrated level of proficiency, it is suggested that they read texts aloud to identify and improve their issues and, through the lexical (phonological) route, understand the text. The lexical route is related to the straight activation of meaning in our mental lexicon; we are proficient readers, so we can recognize words and associate their spellings and pronunciations with their meanings (Freitag & Sá, 2019). It is also important for these students to paraphrase texts, read in pairs, read a text with a classmate, repeat the reading of an already-known text, get the teachers' feedback about the student's progress as soon as possible, and play online educational games.

Students with an instructional level can increase their reading speed through a set time for this activity, and gamification during their reading is a good suggestion. Skimming and scanning strategies may be useful for reading comprehension. It is suggested that students at the independent level read longer and more complex texts.

FINAL CONSIDERATIONS

The main goal of this article and the workshop proposal was to offer teachers another piece of pedagogical material to use more than once in their classrooms, suggesting improving students' reading asymmetries and checking their comprehension, vocabulary, and general knowledge. If this improvement occurs, the school environment will be an important step toward achieving quality education, as suggested by the United Nations.

The Cloze test workshop is aimed at reaching basic education teachers and is divided into two parts, both of which consider the theoretical and practical aspects of a short-term course. In the first moment, the teachers are introduced to some brain lobes, areas responsible for various human activities, including reading, and how this cognitive process occurs because a person's eyes are on a text, the movement of our eyes, and how reading occurs. This information is important in helping teachers comprehend some of their students' reading problems and the areas responsible for them.

The second part of the workshop described the Cloze background, its purposes, applications, uses, and kinds of readers, and how to identify them through this pedagogical tool. The Cloze procedure can be applied three or four times a year, and teachers can take turns in the texts to better check student results and think of different interventions. Teachers, for instance, can give one text the first time, check the results, reinforce reading or other pedagogical practices, and then apply the test again to compare the results. This comparison may help to check students' progress

This procedure is considered a tool that can aid in measuring the reader's ability to comprehend texts; it is a cognitive practice that considers the reader's background, word contextualization, the kind of text used, and especially the aim of the test. Not only is students' orthographical knowledge observed in filling gaps or blank spaces, but some of the most important features of this task are measuring the readability of the text, how it is read, and its comprehension.

There are various kinds of tests, and the creation of one depends on what the tester wants to achieve. This procedure is based on psychological studies, and is currently used to assess reading proficiency, in a foreign language or mother tongue. In addition to these contexts, the Cloze test can be adapted to other school subjects to practice specific concepts, such as studying rocks in geography, or even to fill in the blanks with some physics laws and principles.

In addition to these benefits, it is considered a practical, easy, and economical instrument that can be very useful in schools, especially in those with numerous students and a low budget. It is not the only instrument to teach teachers to accompany their students' reading progression; other instruments must exist. Although the Cloze Test can be useful, it can also help teachers understand their students' reading necessities and think of ways to improve their reading and comprehension, especially after the post-COVID-19 pandemic period.

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