

"If you put those letters together, write ball": a study about what children think about reading and how they do it

“Se juntar essas letras escreve bola”: um estudo a respeito do que as crianças pensam sobre a leitura e como a realizam

"Si juntas esas letras, escribe bola": un estudio de lo que piensan los niños sobre la lectura y cómo lo hacen

Ilsa do Carmo Vieira Goulart¹
Juliana Paula de Oliveira Gomes²
Giovanna Rodrigues Cabral³

Abstract

This work considers reading as a complex cognitive process, which involves several intrapsychic activities, such as perception, attention, memory, inference, among others. Discussions about the process of learning reading often appear linked to studies and research on the acquisition of writing, not being as explored or commented as the aspects of the child's cognitive development in the area of education. In view of this, this research aims to understand what psycholinguistics discusses about the cognitive processes of reading, in order to identify the evolutionary phases and which are the predominant characteristics in each of these stages. The study is developed from the application of reading activities with 5-year-old children from an early childhood education class. For this, a participatory research with a qualitative approach was carried out, having as a data production procedure the application of reading activities and records of the children's speeches during the activities. The analysis is mainly based on the studies of Ferreiro and Teberosky (1999), Solé (1998) and Smith (1989) on the perspective of reading as a cognitive process. By analyzing the activities, it was possible to identify characteristics of the reading phases; of the evolution from one phase to another in the development of children, according to the studies of the authors selected for this work, and the relationship between the phases of reading with the stages of the writing hypotheses considering the studies of Ferreiro and Teberosky (1999).

Keywords: Reading. Phases of reading. Teaching reading. Cognitive processes.

Resumo

Esse trabalho considera ler como um processo cognitivo complexo, que envolve várias atividades intrapsíquicas, como percepção, atenção, memória, inferência, entre outras. As discussões sobre o processo de apreensão da leitura, muitas vezes, aparecem ligadas aos estudos e pesquisas sobre a aquisição da escrita, não sendo tão explorado ou comentado como os aspectos do desenvolvimento cognitivo da criança, na área da educação. Diante disso, essa pesquisa tem como objetivo compreender o que a psicolinguística discute sobre os processos cognitivos da leitura, de modo a identificar as fases evolutivas e quais as características predominantes em cada uma dessas etapas. O estudo se desenvolve a partir da aplicação de

¹ Universidade Federal de Lavras – UFLA. Lavras/MG, Brasil. E-mail: ilsa.goulart@ufla.br Orcid: <https://orcid.org/0000-0002-9469-2962>

² Universidade Federal de Lavras – UFLA. Lavras/MG, Brasil. . E-mail: ju.p.oliveira2010@gmail.com Orcid: <https://orcid.org/0000-0001-9427-5117>

³ Universidade Federal de Lavras – UFLA. Lavras/MG, Brasil. E-mail: giovanna.cabral@ufla.br Orcid: <https://orcid.org/0000-0002-4780-516X>

atividades de leitura com crianças de 5 anos, de uma turma da educação infantil. Para isso, realizou-se uma pesquisa participante de abordagem qualitativa, tendo como procedimento de produção de dados a aplicação de atividades de leitura e de registros das falas das crianças durante a realização das atividades. A análise apoia-se, principalmente, nos estudos de Ferreiro e Teberosky (1999), Solé (1998) e Smith (1989) sobre a perspectiva da leitura como processo cognitivo. Ao analisar as atividades foi possível identificar características das fases da leitura; da evolução de uma fase à outra no desenvolvimento das crianças, de acordo com os estudos dos autores selecionados para esse trabalho, e a relação entre as fases da leitura com as etapas das hipóteses de escrita considerando os estudos de Ferreiro e Teberosky (1999).

Palavras-chave: Leitura. Fases da leitura. Ensino da leitura. Processos cognitivos.

Resumen

Este trabajo considera la lectura como un proceso cognitivo complejo, que involucra varias actividades intrapsíquicas, como la percepción, la atención, la memoria, la inferencia, entre otras. Las discusiones sobre el proceso de aprehensión lectora a menudo están vinculadas a estudios e investigaciones sobre la adquisición de la escritura, y no son tan exploradas o comentadas como los aspectos del desarrollo cognitivo del niño en el área de la educación. Por lo tanto, esta investigación tiene como objetivo comprender las discusiones psicolingüísticas sobre los procesos cognitivos de la lectura, con el fin de identificar las fases evolutivas y cuáles son las características predominantes en cada una de estas etapas. El estudio se desarrolla a partir de la aplicación de actividades de lectura con niños de 5 años, de una clase de jardín de infantes. Para ello, se realizó una investigación participante cualitativa, con la aplicación de actividades de lectura y registros de los discursos de los niños durante la realización de las actividades como procedimiento de recolección de datos. El análisis se basa principalmente en los estudios de Ferreiro y Teberosky (1999), Solé (1998) y Smith (1989) sobre la perspectiva de la lectura como proceso cognitivo. Al analizar las actividades, fue posible identificar características de las fases de lectura; de la evolución de una fase a otra en el desarrollo de los niños, según los estudios de los autores seleccionados para este trabajo, y la relación entre las fases de la lectura con las etapas de la escritura de las hipótesis considerando los estudios de Ferreiro y Teberosky (1999).

Palabras clave: Lectura. Fases de la lectura. Enseñanza de la lectura. Procesos cognitivos.

Introduction

This study is based on the premise that researching children's reading acquisition, based on the understanding that reading involves complex cognitive processes, becomes an action that has repercussions on the pedagogical practice of teachers. Some studies have shown the discursive impact of psycholinguistic theory on the conception of reading, specifically, in teaching practices, as Goulart (2023) points out. By understanding that the acquisition of reading consists of evolutionary phases and knowing how to identify them, teachers will be able to direct the intervention activities necessary for the systematized work of specific competencies to the formation of the reader.

In this text, which is directed by the cognitive aspects of the act of reading, based on the studies of Smith (1989, p. 12), it is understood that "reading cannot be understood without taking into account the perceptive, cognitive, linguistic and social factors, not only in reading, but in thinking and learning in general". The author adds that the child can do anything, "as long as the environmental circumstances are appropriate", which corroborates the idea that the comprehension of reading and writing requires the recognition of the cognitive, linguistic, social and cultural processes that constitute them, in order to subsidize the proposals for pedagogical intervention in the school context.

Another aspect related to the conduction of the theoretical argumentation of the cognitive aspects of reading is based on the discussions about which the act of reading can be driven by different purposes of the reader, whether for fun, information, entertainment, instruction, location, etc. According to Solé (1998, p. 22) "[...] the range of objectives and purposes that makes the reader stand before a text is broad". For the author, the reader uses means to read and achieve the proposed objective, thus taking advantage of his creativity to achieve comprehension, since it is "[...] a process of interaction between the reader and the text, in this process one tries to satisfy [obtain pertinent information for] the objectives that guide its reading".

Because it involves different cognitive aspects such as perception, cognition, language and social relationships, reading is considered a complex activity, because the "[...] being able to read, that is, to understand and interpret written texts of different types with different intentions and objectives, contributes decisively to people's autonomy" (Solé, 1998, p. 18).

From the perspective that reading is a skill that promotes the development of the subject's oral and written communication in a society, Solé (1999, p. 32) states that "the acquisition of reading is essential to act autonomously in literate societies". In this sense, one can ask: what does psycholinguistics discuss about the cognitive aspects of reading? What is the relationship between the evolution of written acquisition and reading hypotheses? How can the activities developed, specifically with reading, with children aged 4 and 5 years, contribute to the development of reading comprehension?

Pedagogical proposals in early childhood education aim at the development of reading capacity, which does not correspond to literacy itself, because, as Ferreiro (2011, p. 99) states "[...] Instead of asking ourselves whether or not we should teach, we have to worry about giving children opportunities to learn." Competencies related to reading in early childhood

education refer to the possibilities of stimuli for the construction of aspects necessary for the formation of the little reader, such as familiarization with factors prior to reading and strategies for reading comprehension (Rodrigues, Goulart, 2022).

In order to make learning to read a remarkable moment, it is important that the teacher recognizes what the child knows and thinks about writing, in order to understand the specificities and variations of this process. As Ferreiro and Teberosky (1999, p.23) state, "it is necessary to start with units that are meaningful to the child", which start from subjects that are of interest to the children, trying to transform the objects into words that the children can explore using their previous knowledge, because reading is an activity in which the reader has active participation, in which he reads using strategies in favor of understanding the situation of the reading action.

In view of such arguments, this research aims to understand what psycholinguistics discusses about the cognitive processes of reading acquisition, in order to identify the phases of reading and what are the predominant characteristics of each stage. For this, we developed an action research, with a qualitative approach, based on the application of reading activities carried out with children of 4 and 5 years old, from an early childhood education class, with interest in identifying which phases of the reading process can be diagnosed in the activities applied to these children. As a data production procedure, we applied different activities throughout the 2018 school year, which consisted of reading words and sentences, the relationship between words and images, locating words in sentences, among other interventions.

For a better presentation of the theme, we divided the proposed discussions into sessions: in the first, we introduced the theme, in the next we discussed the cognitive aspects of reading; in another we discuss the phases of reading in the conception of different authors; Finally, we present the methodology used, the data collected, the analyses performed and the final considerations resulting from the study.

Cognitive aspects of Reading

For the discussion regarding the cognitive aspects of reading, we chose to present the conception proposed by Smith (1989), for bringing a conceptual description of reading, his studies had repercussions on linguistic and psycholinguistic studies. The conception of

reading proposed by Smith (1989) has guided studies in the area, specifically in relation to the idea that information is in our sociocultural context perceived and related through the visual and non-visual field, that is, visual information refers to what is placed in front of the eyes and disappears when the light goes out. Non-visual information refers to what is in the mind, behind the eyes. By bringing the discussion about reading as a cognitive process, the author presents a reflection on how much the movement of the eyes is present in the performance of this activity, according to him, reading is not limited to an action of the gaze, but an intellectual action, that is, it beckons to the cognitive processes.

To read and understand the text, people activate cognitive processes, since reading is so significant that it is able to promote communication, temporal interaction and understanding about so many other subjects. For this reason, Smith (1989, p. 21) considers three terms that refer to the reading process and that are key points for its realization, they are: "prior knowledge", "visual information" and "non-visual information".

Prior knowledge is all that is already known about the text or subject and Smith (1989, p.22) considers that "the brain contains memories with a meaning" and also adds that "the cognitive structure is much more like a summary of our past experiences". These memories or stored knowledge are the so-called prior knowledge.

Smith (1989, p. 85) explains that "visual information is a necessary part of reading, but it is not enough", and that the text may be incomprehensible because it is in another language, because parts are missing, etc. Another factor that the author highlights is that "the brain does not see everything that is in front of the eyes". This means that the brain focuses on what is necessary at that moment or changes the focus if it considers that it is unnecessary, understanding that "knowledge about how to read is another kind of non-visual information, and is of evident importance to make reading possible" (Smith, 1989, p. 84-85).

Non-visual information refers to what the eyes do not see and is related to thought, for example, when the word table is read, the reader thinks of the tables that are present in his daily life (Smith, 1989). Thus, "the less non-visual information is available behind the eyes, the more visual information is needed" (Smith, 1989, p. 86). In this sense, it is possible to state that visual information and non-visual information are linked in a relationship of mediation. These three elements, together with knowledge about the formal structures of language, favor reading.

Smith (1989, p. 39) states that "children learn many things, including speaking and a

lot of literacy, without the awareness that they are learning". In this sense, one of the alternatives of the pedagogical dimension is to understand the cognitive dimension of the learning process. Given that "reading cannot be separated from thought. Reading is an activity loaded with thoughts", when reading, thought is involved to favor textual comprehension because it is an activity directed by the language that is found in the written text.

Understanding through prediction is a strategy that cannot be used in any way. The justification of the prediction must be in accordance with the existence of the word, since "the prediction does not mean considering everything based on wild guesses" (Smith, 1989, p.48). A kind of rules are created, such as: all words beginning with B would form BALL, and there would be no other words beginning with the consonant B.

By the rules of prediction, the brain organizes the possibilities for understanding to be possible, because "each specific prediction, however, no matter how detailed and transitory it will be derived from our expectations about where the text is taking us" (Smith, 1989, p. 49). Foresight and comprehension are not alien to the other general knowledge found in the reader's memory and knowledge, but are also narrowed by the expectations directed by the text.

Understanding language, according to Smith (1989, p. 49), consists of "staying ahead of the received details with which the brain struggles to relate" and it is for this reason that children take time to learn to read what makes no sense to them. For the author, "reading is, comparatively, much more difficult for children who have been taught that they should learn the words correctly, instead of trying to extract a meaning from what they are reading" (Smith, 1989, p.50). In the same line of reasoning, to expect the child to be interested in a text that does not appeal to him is to prune the possibilities of prediction and understanding. It is more difficult to make predictions about what is not known or partially known.

In order to have understanding, it is necessary to constantly cross the elements of apparent structure and the elements of deep structure. Smith (1989, p. 51) defines them as:

Apparent structural elements are words or parts of words, recognizable patterns of sounds in speech or letters in writing. But the elements of deep structure are much more illusory, they are elements of thought, which are widely called (because it is very difficult to be precise about them) concepts or ideas.

Relating the two types of structural elements – apparent and deep – is not an easy task for the initial reader. To read the word using orthographic comprehension seeking meaning according to concepts and ideas is to consider the expression of predictions and propositions

about the organization of language.

In this argumentative bias, the importance of visual information (images, drawings, portraits, photos, illustrations) for the process of understanding and production of meanings is evidenced, if the written text is not understandable to the reader, the illustrations provide a reading action, in an interpretative movement, because:

As a significant activity, reading cannot be understood without taking into account the participation of the individual as the possessor of an individual and singular history. History that makes a difference when it encounters the text and that favors the emergence of inferences marked by the activation of a context that alludes to its cognitive memory (Ferreira; Dias, 2004, p. 447).

In order for the interpretative movement to be efficient as a comprehension mechanism, according to Smith (1989, p. 54), the reader "commands the time" of reading, defining how much time he will spend with each word or sentence to identify familiarities making reading possible. The reader defines an order of necessity with which he establishes the time to be spent with each passage to be read. In this case, defining which words can be interpreted by observing the context in which they appear opens the possibility of eliminating it from the list of priorities and looking for meaning in important words, but which may have double meanings or that do not deliver according to the context of the sentence.

For the text to be understood, reading cannot be fragmented and slow. The brain selects the important parts to direct the attention of the eyes, relating visual information and non-visual information. Selecting keywords to understand the text is an automatic function of the experienced reader, which makes reading faster and simpler. On the subject, Smith (1989, p.102) states that one of the ways for an efficient reading consists of "[...] not to read indiscriminately, but to sample the text. The brain must be thrifty, making maximum use of what it already knows and analyzing the minimum amount of information necessary to verify or modify what can already be predicted in terms of the text."

For this reason, initial reading for children is so difficult. The brain is not yet trained to perform this movement and these children, too, are not familiar with the writing system. Regarding the slowness in reading of children who are still appropriating the writing system, Smith (1989, p.110) states that "slow reading interferes with comprehension. Reading is accelerated not by the increase in the rate of fixations, but by the reduction of dependence on non-visual information, mainly through the use of meaning." From the child's mastery of the first reading norms, he begins to discover known aspects in certain words and recognizes them, not by reading, but by identification, using memory to access this information quickly.

Knowing the letters becomes an initial step to be taken both to teach reading and to teach writing. However, Smith (1989, p.127) considers that "isolated letters cannot be pronounced as words" and adds that "we understand a letter when we can say its name". It is important to remember that the letters are not named in the same way as the pronunciation of the name, as the sound that the letter makes in the word is different from its nomenclature. Even making this difference very clear, it is still important to highlight that the letter is in the category of visual information.

Considering the discussion about reading, it is possible to outline some important points. First of all, reading is an activity that comprises several objectives according to the purpose to be carried out, one can read to obtain information, for fun, to understand a subject, to make a recipe, to get somewhere or objective. Reading opens up the possibility of connecting with different situations or realities, making it possible to have a connection, even if temporary, between reader and author. According to Smith (1989, p.21) "we learn to read, and we learn through reading", so we must create the possibility of learning by reading, including learning about reading, it is an action that expands knowledge about many other areas.

As a result of this statement, it is worth remembering that the conception of how reading happens to adults is different from what is taught to children, especially because adults have a fluent practice and are not aware of the actions necessary to understand what is read. In this sense, in addition to teaching letters and syllables, it is necessary to know how learning to read happens, to have knowledge of the phases, their characteristics, a theme that we will address in the next section.

The phases of reading according to Ferreiro and Teberosky (1999): a theoretical conception

Based on Piaget's theory of knowledge processes, the authors Ferreiro and Teberosky (1999, p. 105) present the psychogenetic perspective of learning to read, starting from the statement that the subject is an active builder of his own knowledge, demonstrating that children could develop notions or hypotheses in relation to reading and writing, long before they were enrolled, state that "children have conceptualizations about the nature of writing long before systematic teaching".

The authors present the psychogenetic perspective based on the assumption of the

interaction between the subject who thinks and articulates hypotheses and the object of knowledge that presents questions to be solved using thought. They understand that the writing system is often an object of curiosity for children. The psychogenetic theory emphasizes the process of acquisition of reading and writing in the child who makes discoveries and builds knowledge about language and written language through his hypotheses.

Even knowing the alphabetic graphic system and without mastering reading and writing, the child establishes some criteria to identify what can be read. Ferreiro and Teberosky (1999, p. 43-51) cite some of these criteria such as: "sufficient number of characters, variety of characters, use of indexes, type of letter (called character) and differentiation of letters and numerals".

The first principle to establish criteria for the possibility of reading or what is not possible to read, before children need to recognize the alphabetic writing system, recognize the letters, the numerals and differentiate them. At first, the letters and numerals are confusing; in a second moment, the children begin to recognize the function of letters and numerals and, in a third moment, the child returns to the conflict of confusion between letters and numerals, as there is the possibility of reading the number. Ferreiro and Teberosky (1999, p. 51) explain that it is "a problem that can only be solved when we become aware that the numbers are written in a writing system different from the alphabetic system used to write words". The command to read numerals becomes common in the classroom, which in many cases causes confusion about what is to be read in children who are learning about the writing system.

Another important point is the relationship between text and image. In the case of this work, in most of the activities proposed for the children, the image accompanies the text. Most children identify the text as being to read and the image to see, look at, etc. Ferreiro and Teberosky (1999, p.52) indicate that when asked about "why the text can be read", the children explain that it is because it has letters and "no child indicated only the images as being to be read, however, several indicated text and image at the same time, as if both were complementary". The image indicates to the child reading possibilities.

To develop the child's knowledge about what and how to read, there must also be a child's idea about the writing system, the text, the letters, going back to the level of genesis or development in relation to writing. By already having knowledge and relationship with the

writing system and reading objects, the child will possibly have better learning conditions. Contact with objects of written culture directly influences the process of acquisition of reading and writing.

In this sense, Ferreiro and Teberosky (1999, p.104-112) define three stages of sentence reading, namely: (a) Divorce between deciphered and meaning; (b) conflict between deciphered and meaning; (c) coordination between deciphered and meaning. These three categories are further subdivided, each addressing stages of reading.

a) Divorce between deciphered and meaning:

At the stage in which "meaning without deciphering" is named, the child seeks meaning from the text through the image, without taking into account the textual aspects that accompany the image in question. According to Ferreiro and Teberosky (1999, p.104-112), the "deciphered without meaning" stage, the child does not seek meaning either in the image or in the text, since "he is limited to deciphering isolated elements", whether a letter or syllables that are not related to the text or the image. In this stage, the reading activity is characterized by the "attempt to relate between deciphered and meaning", in which the child seeks meaning as a function of the image, but soon seeks in the text clues that allow him to support his interpretation.

b) Conflict between deciphered and meaning:

In this stage, there is the "primacy of the deciphered" in which the child is able to anticipate the meaning of the text from the image, but also knows that the text is not entirely predictable in the image. In the "primacy of meaning" stage, the starting point is similar to the previous one, but in this case the child remains centered on the search for meaning. While, for Ferreiro and Teberosky (1999), at this moment there is the "oscillation between the deciphered and the meaning", in which the oscillations between the deciphered, that is, the written word, and the meaning, what it represents, take place because of the same text; The child tries to overcome the conflictive situation, but is unable to truly integrate the meaning and the deciphered. In their attempts at conciliation, failures occur, leading to variable results.

c) Coordination between deciphered and meaning:

The coordination stage between deciphered and meaning is characterized by the elimination and reintegration of a fragment of text, under the condition that both elimination and reintegration result in acceptable sentences. There is also the integration of a part of the text that was not recognized during the initial deciphering as a function of the meaning of the

sentence. Correction of the reading due to the issuance of grammaticality judgments. In this case, the child even modifies his reading, resorting to his own internal grammar.

Based on the definition of the stages of the evolution of reading, Ferreiro and Teberosky (1999, p.113) state that "the classification of the answers obtained represents a genetic ordering of the answers", but they also clarify that it is not the intention to affirm that all children go through these phases. The authors also add that: "there is no doubt that progression occurs when the child tries, painfully and difficultly, to link the technique of the deciphered that he is learning with his own linguistic knowledge, which allows him to make both corrections and predictions about the text" (Ferreiro; Teberosky, 1999, p.105).

This passage from one level to another, even if the permanence in each of them for a specific time is not determined, is progress in the children's reading development, but to be effective, reading must contain meaning, it must contain objective, where the child can apply his knowledge and linguistic knowledge. In this sense, it is important to highlight that progress occurs when the challenging situation requires new knowledge to be organized to be overcome. It is necessary to highlight that, as stated by Ferreiro and Teberosky (1999, p. 162), "the notion of word that a child of 5-6 years of age has is very far from coinciding with the definition of the adult", and that even the child who does not know how to read is able to pronounce words following the order and reasoning of "that the order of writing corresponds, term by term, to the order of issue".

According to the previous statements, the child has a different knowledge about words and is able to order them according to the order of emission. In view of this, it is possible to understand that this condition develops in relation to graphic recognition and is correlated with the development of their perceptions about reading and about what they know about writing. In addition to the maturation of the child himself in relation to language, we also highlight other reading actions that he observes the adult perform, such as reading books, statements of favorite animations, movie posters, etc.

The voice is not the only indication that reading is being carried out, other aspects are at stake, such as "posture as the direction of the gaze, or the type of exploration that the eyes perform" (Ferreiro and Teberosky, 1999, p. 165). In view of the reading acts that the adult performs for the children, there is the imitation of the gestures, actions and reading postures, as a model was given by reproducing the gestures observed in the adult. Thus, it is possible to consider the child's observation and the imitation game as exercises that promote the

knowledge and recognition of reading as an integral and necessary factor in the daily life of which the child is a part.

For the child to know the written language and understand it, there was an intense psychic process, in which the child "reasoned intelligently, made good hypotheses about writing systems (even if they are not good hypotheses about our writing system), overcame conflicts, sought irregularities, constantly gave meaning" (Ferreiro; Teberosky, 1999, p. 290). The child, in relation to knowledge about reading and writing, is considered an active subject, who analyzes a challenge, a problem situation and seeks ways to solve them. It is necessary to highlight the comprehension procedure for teaching reading, considering that:

Children do not understand that these noises they make in front of letters have something to do with language; they do not understand that these "phrases to unlock the tongue, which pass through prayers, have anything to do with what they know about language; everything becomes a pure irrational convention, a "dance of letters" that combine with each other in an incomprehensible way. Something that cannot be thought of (Ferreiro and Teberosky, 1999, p. 290).

This statement clarifies that for the child to know the written language and become able to read, he needs to be able to think and formulate erroneous and correct assumptions about the written language. The flexibility between the phases of the models allows the child to use various strategies to establish reading conditions and become a good reader, because the child, when he is holding him to read, instantly resorts to many of them.

Methodological procedures

To carry out the proposed studies, we carried out a participatory research (Gil, 2002), with a qualitative approach, characterized by involving the researcher and the participating members. To this end, we adopted as a methodological procedure for data production the elaboration, application, observation, with registration in a field diary, and the monitoring of five reading activities, organized under different strategies and resources. For this study, we present 3 activities carried out from the reading of words, images and word lists with 20 children, from an early childhood education class, from a private school in a city in the south of Minas Gerais, during the 2018 school year.

We used descriptive analysis as a methodological procedure, based on Gil's (2008, p. 28) theoretical proposition, when he clarified that descriptive research "has as its primary

objective the description of the characteristics of a given population or phenomenon or the establishment of relationships between variables". And he also adds that "descriptive research is, together with exploratory research, the ones that social researchers are usually concerned with practical action. They are also the most requested by organizations such as educational institutions."

Results and discussion

a) Reading activity with word cards

The first activity was carried out in the initial circle after all the children had already arrived. Word cards with fruit names were used. After organizing the circle, talking about some important issues for the day, building the routine with the children and updating the calendar, the subject of fruits began.

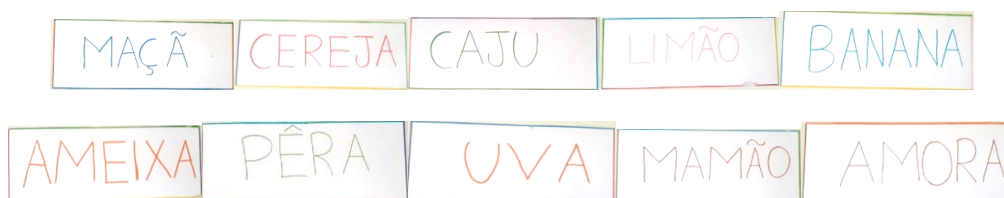


Image 1 – Fruit name cards Source: Gomes (2019, p. 55-56)

Taking advantage of the opportunity that the class would study about healthy eating with a focus on fruits, there was the making of cards with the names of the fruits for the reading activity. In a circle, collectively, the teacher held the tokens inside a yellow box that was used to create an expectation of suspense in these moments, however, not all children manifested themselves during the questions. In view of this, the records presented in the table below refer only to the statements of the children who decided to express themselves about the questions asked.

Chart 1 – Activity with cards with fruit names

Word Name of the Fruit	Child reading	Justification for reading	Researcher's intervention	Child's response
CAJU	Carro	Because it starts with C	Remember that the subject is fruits?	Child 1- So it's Grape because there's U at the beginning
AMEIXA	Acerola, abacaxi, abacate, amora	Because it starts with A		
PERA	Pera	Because it starts with P and pear is a fruit.		

MAÇÃ	Maçã	Why it starts with M		
MAMÃO	Maçã	Why it starts with M		
UVA	Uva	Because it starts with U and has V for vaca.		
LIMÃO	Limonada	Why it starts with L	But limonada Is it fruit?	Child 2 - No. So it must be Laranja
CARAMBOLA	Casa	Because there is C in the beginning	Remember it's fruit?	Child 3 - So it is Abacaxi because it has A
GOIABA	Goiaba	Why it starts with G		
LARANJA	Laranja	Because it has L for laranja		
ABACATE	Abacaxi	Because it starts with A		
PESSEGO	Pirulito		Pirulito Is it fruit?	Child 5 - No! But it must be made from some fruit because it is sweet.
BANANA	Banana	Because it starts with B		
AMORA	Abacaxi	Because it starts with A	Every word that has an A will be abacaxi?	Child 7 - No! It can be abacate also.
CEREJA	Caju	Because it starts with C	Let's see another fruit that starts with C?	Child 12- Cereja to put on cake.

Source: Gomes (2019, p. 55-56).

During this moment in circle, one sheet at a time was presented to the children and we asked what was written. In the chart we can observe that the reading strategy used by the children was based on the observation of the initial letter, however for the word "CAJU" a child answers: "So it's UVA because it has U at the beginning", there is the identification of the letter U, which is not at the beginning of the word, but was a letter that caught the child's visual attention. Smith (1989, p. 85) states that "reading depends on some visual information passing through the eyes to the brain" and adds that it is necessary to have knowledge about what is reading in front of the eyes. Without the union of these two types of information (visual and non-visual), it is not possible to read the message that the text represents.

The card with the word "AMEIXA", children read: "Acerola, abacaxi, abacate, amora". The children's observation was accentuated in the initial letter, with the justification: "Because it starts with A". There was a letter-grapheme relationship based on the proposal of the activity being based on the semantic field "fruits" and on the fruits that the children knew.

By observing the answers, we identified that there was an attempt to establish a

correspondence between sound and the initial letters of the words and a deduction of the words from the identification of these letters, which is a reading strategy used by the children (Solé, 1998). There is an effort to understand writing through the grapheme-phoneme relationship, Monteiro and Soares (2014, p.452) state that "theories about learning to read words have often concluded that beginning readers preferentially use the phonological process to read words". This statement indicates that when the child begins to understand the relationships between the grapheme and the phoneme, he is in the orthographic phase. According to Monteiro and Soares (2014), the child relies on visual cues to recognize the word, which in this case the correspondence was made with the initial letter.

The children are in the reading stage in which they seek "meaning without deciphering", the resource used was based on the initial letter, seeking to attribute meaning to the words presented without considering the textual aspects that accompany the image in question. The characteristics of this phase, according to Ferreiro and Teberosky (1999), refer to the act of reading randomly, that is, the child does not seek the meaning in the image or in the text, but seeks to decipher or interpret isolated elements, in this case, they resorted to the initial letter of each word.

b) Clause related to the image with exploration of a broad context.

Image 2 – Activity 2 - b



AS CRIÇAS ESTÃO BRINCANDO NA CHUVA

Source – Gomes (2019, p. 71).

While the children were performing another activity in the classroom, it was possible to invite one child at a time to apply the research. As this activity was applied in November, the children had already carried out other similar activities and had no difficulty or insecurity when the teacher proposed "read to me please". Also, for this activity, we selected for the analysis two dialogues between the teacher-researcher and children, identified as expressive in relation to the answers obtained:

Teacher: "Where is there something to read?"

Student 16: (points with his index finger to the words)

Teacher: "Why do you have something to read there?"

Student 16: "Because it has letters"

Teacher: "What do you think is written?"

Student 16: "We at the dolphin park" (Dolphin park is a place in the school where there are three dolphins that work as showers for the children)

Teacher: "Where does it say dolphins?"

Student 16: (tip for the word ARE)

Teacher: "Why does it say dolphin there?"

Student 16: "Because it has the letter is O."

Teacher: "I get it. Where does it say Park?"

Student 16: (Points with index finger to AS)

Teacher: "Why?"

Student 16: "Because the park has A". (Gomes, 2019, p. 71).

The child's answers point to characteristics of the classification made by Ferreiro and Teberosky (1999, p. 109) called Conflict between deciphered and meaning. In this case, the child's reading oscillated between the deciphered and the meaning, since the child seeks to read from what is deciphered, but does not abandon the meaning that the image has in his personal context. In the case of this dialogue, the "dolphin park" is a place in the school that has three large dolphins that function as a shower for the children, as the school does not have a swimming pool. The child understood that the text had its own message, but that at that moment it referred to the child's previous knowledge in relation to that image.

Thinking about the interaction between the teacher-researcher and the children, it was possible to understand that there was a need for questions so that the children would say more things. The questions were essential to understand what the child thought about that image and the possibilities of the text.

The dialogue below was obtained based on another child's response. In the same way as the previous dialogue, the teacher-researcher asked: "where is there something to read?" and then asked the child to read it.

Teacher: "Where is there something to read?"

Student 15: "Here" (pointed to the letters)

Teacher: "Why is there something to read?"
Student 15: "Because it has letters"
Teacher: "And what is written?"
Student 15: "Children have balloons and some don't"
Teacher: "Where is it written children?"
Student 15: (made a C sound several times and pointed to the word CHILDREN)
Teacher: "Why does it say children?"
Student 15: "Because it starts with C and has R"
Teacher: "Where does it say BALLOON?"
Student 15: (Made a sound of B, A and BA several times) "there is no word with BA."
Teacher: "Let's read together?"
Student 15: "Let's go".
Teacher: (I point slowly with my finger so that the child can have time to think about what he is reading).
Student 15: "The children are happy" (syllabaling)
Teacher: "What did you read?"
Student 15: "The children are happy" (fluent) (Gomes, 2019, p. 72).

This child was at a very advanced level of writing development in relation to his age and the class in general. He already joined letters to form syllables in spontaneous writing and as observed from the answers obtained, it was possible to identify characteristics of the phase defined by Maranhe (2011) as the alphabetic phase, in which the child begins to understand that there is a relationship between graphemes and phonemes, in addition to understanding that there is a relationship between speech and writing.

When the child reads with a syllable (speaking slowly each syllable) Morais (1996, p. 186) understands that the child selects a "strategy based on the analysis of words in letters, on the association of the letters 'a', 'sounds' and on the synthesis of these sounds. At this stage, the treatment would be sequential, from the beginning to the end of the word." The child, in the student 15 stage, understands some basic rules of spelling and is advancing in the process of learning to read.

Based on the characteristics of the dialogue presented by student 15, it is possible to relate the alphabetic phase of reading with the level of syllabic-alphabetic writing, because "when the child discovers that the syllable cannot be considered as a unit", that is, as a single letter, he starts to consider that the sound units based on two letters, from the grapheme and phoneme relationship that composes words (Ferreiro, 2011, p. 29).

Final considerations

This research sought to understand the cognitive processes of reading, in order to

identify the evolutionary phases and which are the predominant characteristics in each stage, from the application of reading activities with 5-year-old children. For this, we carried out a field research with a qualitative approach, having as a data collection procedure the application of reading activities and records of the children's speeches during the activities.

Based on the studies of Ferreiro and Teberosky (1999) it was possible to understand the phases of reading as: divorce between deciphered and felt, conflict between deciphered and meaning and coordination between deciphered and felt. In the phase of divorce between deciphered and meaning, the child can seek meaning without deciphered, which is when the child considers only the meaning of the image and does not consider the text. He can also consider the deciphered without meaning, considering the text and not relating to the image. And there is also the possibility of an attempt to relate meaning and deciphered that seeks meaning based on the image, but justifying itself in the text. In the phase called conflict between deciphered and meaning, the child can be in the primacy of the deciphered, which is characterized by the anticipation of meaning from the image, but considers that the text cannot be totally dependent on the image. In the primacy of meaning, the child seeks to understand meaning through the image and remains centered in the search for this meaning. There is also the oscillation between deciphered and meaning, which is when the child can start deciphering and then looking for the meaning in the image, or the child can also be able to solve the problem by preserving the differentiation between what is in the text and what is in the image. The last phase is called coordination between deciphered and meaning, in which the child does not renounce the deciphered or the meaning to perform the reading. It is the ability to seek meaning in the image and decipher the text.

The analysis of the applied activities points out that the participating children are in the divorce stage between deciphered and meaning, as they do not read the structural aspects of words, but choose elements such as initial or final letter to use strategies to read words. Such a reading resource can be observed to identify labels of products that children usually consume, names of toys they like the most or titles of books that they are used to reading. This statement was identified in the reading that the children performed from the proposed activities, observing the presence of the characteristic of guessing the words considering the first letter or some letter they know.

When the children explained the reading of “ABACAXI” for the word “AMORA”, because it had or because it started that the letter "A", or “UVA” com has the letter "U", does

not indicate that the child can relate the phonemes to the graphemes, but that the child learned that those letters refer to fruits or because he was making a deduction, an inference, because there is memorização e utilização de pistas visuais conhecidas como estratégia de adivinhação.

It was also possible to observe that the child who recognized the initial letters later recognized the initial syllables. In the first activity, the reading of cards with the names of fruits, was carried out in June with all the children in a moment of collectivity. The second was carried out with all the children, but individually. One of the children in the first activity identified the word only by initial letters and, later, in another activity, indicated recognition by initial syllables. These are indications of progress in the process of learning reading, perceived as an activity that requires the development of strategies.

Several documents reflect on the importance of reading, but they exalt the evolution of writing and do not bring proposals for pedagogical work in relation to the phases of reading and how to teach reading strategies to children. To complement this idea, Girotto and Souza (2010, p. 55) state that it is necessary to enable situations "so that children can monitor and expand their understanding, as well as acquire and activate their knowledge of the world, linguistic and textual, based on what they are reading". Enabling activities based on what children already know and creating situations in which they learn from each other in interaction is also stated by Ferreiro (2011, p.99) "instead of asking ourselves whether or not we should teach, we have to worry about giving children opportunities to learn". It is possible to say that the school routine is a good opportunity for the child to learn.

The research demonstrated the importance of the process of constructing schemes for word identification and reading comprehension, such as the lexical, orthographic and phonological process, it was possible to analyze the arguments of the children themselves being able to identify how they relate to reading and how they understand the process of reading formation.

Referências

FERREIRA, S. P. A.; DIAS, M. da G. B. B. A leitura, a produção de sentidos e o processo inferencial. **Psicologia em Estudo**, Maringá, v. 9, n. 3, p. 439-448, set./dez. 2004.

FERREIRO, E. **Reflexões sobre Alfabetização**. 26. Ed. São Paulo: Cortez, 2011.

FERREIRO, E.; TEBEROSKY, A. **Psicogênese da língua escrita**. Porto alegre: Artmed, 1999.

GIL, A. C. **Como elaborar projetos de pesquisa**. 4. Ed. São Paulo: Atlas, 2002.

Gil, A. C. **Métodos e técnicas de pesquisa social**. 6. ed. São Paulo: Atlas, 2008.

GIROTTO, C. G. G. S.; SOUZA, R. J. Estratégias de leitura: para ensinar alunos a compreender o que leem. In: MENIN, A. M. C. S. et al. (Org.). **Ler e compreender: estratégias de leitura**. Campinas: Mercado das letras, 2010. p.45-114.

GOMES, J. P. de O. **A leitura como processo cognitivo: um estudo sobre as fases de leitura em crianças de 4 e 5 anos**. 2019. 88 p. Dissertação (Mestrado Profissional em Educação)– Universidade Federal de Lavras, Lavras, 2019.

GOULART, I. C. V. **Leitura, leitura literária e ensino: representações discursivas da década de 1980**. Lavras: Editora Ufla, 2023.

MARANHE, E. A. **Uma visão sobre a aquisição da leitura e da escrita**. UNIFESP. 2011. Disponível em <http://acervodigital.unesp.br/handle/123456789/40147> Acesso em: 02 fev. 2019.

MONTEIRO, Sara Mourão; SOARES, Magda. Processos cognitivos na leitura inicial: relação entre estratégias de reconhecimento de palavras e alfabetização. **Educação e Pesquisa**, São Paulo, v. 40, n. 2, p.449-466, abr./jun. 2014.

MORAIS, José. **A arte de ler**. São Paulo: Editora da Unesp, 1996.

RODRIGUES, K. M. P.; GOULART, I. C. V. Intervenção literária: a estratégia de reconto na formação de leitores. **Revista Álabe**, Almería, n. 26, p.1-20, 2022. Disponível em: <https://ojs.ual.es/ojs/index.php/alabe/article/view/7788> Acesso em: 20 jun. 2023.

SMITH, F. **Compreendendo a leitura: uma análise psicolinguística da leitura e do aprender a ler**. Trad. Daise Batista. Porto Alegre. Artes Medicas, 1989.

SOLÉ, I. **Estratégias de leitura**. 6. ed. Porto Alegre: Artmed, 1998.

Recebido: julho/2024.
Publicado: outubro/2024.