International Journal of **Human Sciences Research**

READING AS A PRIMORDAL ASPECT IN TEACHER TRAINING

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Abstract: This article aims to bring physical, cognitive and emotional concepts about reading and point out how reading occurs in different spheres, going through physical aspects and culminating in reading carried out through screens, something commonplace in humanity nowadays. Through a bibliographic review of reading acts, we will see not only the physical act, but also reading on a socio-cognitive level. Let's redesign the look at reading and expand this concept to accompany a digitally connected world and understand why in-depth reading is so important for teaching, and that anyone who has the power to read and understand can teach more effectively. Some people find it easier to read, while others are unable to delve deeper into texts regardless of the genre. We will see, in this article, that reading precedes writing and in addition to being present in the most diverse aspects, it helps teachers in the training of their students. A teacher who understands how reading is consolidated and acquired also has the ability to teach in a more dynamic and efficient way.

Keywords: teaching, reading, teacher training.

INTRODUCTION

In a world increasingly guided by reading, knowing how to read is essential and necessary; we would even say that it is an essential factor in communication. In times of the internet, however, even though reading is completely diluted and permeates our days, we see, with some sadness, that there are those who do not have this skill developed, which brings countless problems of different orders to their lives.

After participating of Brazilian Education for more than two decades, we have been able, in this time, to see how Reading is treated by some educators. It is urgent to learn more about reading so that we can teach reading.

The objective of this article is to bring aspects about reading with the aim of enlightening those who work with children, young people, adolescents, students in general and helping them prepare proficient readers, prepared to act in a conscious and transformative way in the world, supplanting virtual intelligence applications and understanding that we, human beings, are far superior to artificial intelligence, we just need to access our knowledge.

We will use as a theoretical framework, mainly, the works of Albert Manguel, Kock and Elias.

METHODOLOGY

The methodology of this article followed the line of research and analysis based on observation. Bibliographical research took place over a few years, mainly in the development of writing a doctoral thesis, but was deepened with analysis and application to teachers in their training and teaching practices.

RESULTS AND DISCUSSION

READING CONCEPTIONS

The conceptions of reading are variables. Each social group conceives reading in its own way. Even if not so consciously, we all read ourselves and the world around us to glimpse who we are and where we are. Reading does not only occur with letters, we can say, with Manguel (1997), that reading comes before writing. A society can exist without writing, but no society can exist without reading. This way, we read to understand or to begin to understand.

Reading the letters on a page is just one of the many variations that reading offers of itself to human beings. In a broad sense, an astronomer can read a map of stars that no longer exist; the zoologist notices animal tracks in the forest; the player scrutinizes his

partners' gestures before playing a card, the dancer assimilates the choreographer's notes and only then performs her performance, the audience admires and interprets the dancer's movements on stage; the weaver examines the intricate design of a carpet being woven, the organist performs several simultaneous musical lines orchestrated on the page; parents understand from the baby's face the signs of joy, fear or admiration; the Chinese diviner studies the ancient markings on a turtle's shell; the lover blindly examines his beloved body at night, under the sheets, the psychiatrist helps patients decipher their disturbing dreams: the Hawaiian fisherman investigates the currents and the ocean, by dipping his hand in the water, the farmer examines the weather in the sky.

They all share with book readers the art of deciphering and translating signs (Manguel,1997).

Reading, therefore, cannot be reduced to just reading words and their interpretation. We know today that, although there is no grade zero in reading, there is also no grade ten. Reading, mysterious, allows itself to be revealed little by little, it is not restricted to a single meaning, but, rather, in a "show and hide" of meanings that reveal themselves or not depending on countless factors linked to the purposes of reading and the reader skills.

Reading, among all the meanings mentioned above, is also a process of constructing meanings that is triggered from the linguistic elements present on the textual surface and that requires the mobilization of different knowledge in a given communicative situation. This knowledge, therefore, goes beyond the domain of the linguistic code and involves experiences, strategies, reading objectives, general and specific knowledge, communication situation and encyclopedic knowledge.

In this sense, it is possible to affirm that reading is a process that deals with different aspects and that the meaning of the text is constructed in the interaction between author-text-reader, as the reader uses different strategies, articulates, selects and eliminates the possibilities that are offered by the author, through textual clues, in addition to the knowledge he possesses.

The act of reading, therefore, in a first gesture, involves looking at a being in the world and searching for meanings in it. Since the earliest times that we have pictorial and written records, societies, with or without writing, have needed to "decipher" the world.

To read, in any sphere or situation - words on a page, expressions on a person's face or even the tide, so that good fishing can be done, it is necessary to use physical senses, vision, touch, interconnected with the cognitive ones, which lead to interpretation. To advance our studies, it is necessary to understand the physical aspects of the act of reading, for a later understanding of the cognitive aspects of such an act.

PHYSICAL ASPECTS OF THE ACT OF READING

To observe and "decipher" the world are reading movements that involve a physical and, simultaneously, mental act. Manguel (1997) states that, according to the French scholar Roger Bacon, when we look at an object, a visual pyramid is formed that has its base in the object and its apex in the center of the curvature of the cornea.

We see when the pyramid enters our eye and its rays are arranged on the surface of the eyeball, refracted in such a way that they do not intersect. Seeing, for Bacon, was the active process by which an image of an object entered the eye and was then apprehended by his "visual powers."

Manguel (1997:46), still talking about reading, states:

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Galen proposed that a visual spirit, born in the brain, crossed the eyes through the optic nerve and went out into the air. The air itself then became capable of perception, learning the qualities of the perceived objects. Through the eyes, these qualities were relayed back to the brain and down the spinal cord to the nerves of sense and movement. For Aristotle, the observer was a passive entity who received the thing observed through the air, which was then communicated to the heart, seat of all sensations including vision. For Galen, the observer, making the air sensitive, played an active role, and the root from which vision arose was deep in the brain.

According to Manguel (1997), studies relating to neurolinguistics, the relationship between brain and language, began in 1865. That year, two Frenchmen, Michel Dax and Paul Broca, suggested simultaneous but separate studies that the vast majority of humanity, in consequence of a genetic process that begins at conception, we are born with a left cerebral hemisphere that becomes the dominant part of the brain for encoding and decoding language; a much smaller proportion, mostly left-handed or ambidextrous, develop this function on the right side. Thus, we are born with the ability to understand language and speak, but this innate ability needs to be "triggered" by direct exposure. The implications of the discovery regarding reading were evident. In effect, this meant that even before the Sumerian scribes had developed systemic phoneticism, their neurological connections in the brain were predisposed to understand and use this hitherto unknown capacity. The same, of course, is true of pre-literate people everywhere. Any society, therefore, is potentially capable of reading, even before knowing what reading is. Just as every child is born with the potential to read, even before they have their first experience.

A century ago, French ophthalmologist Émile Javal discovered that our eyes actually pop off the page; these jumps or sufferings happen three or four times per second, at a speed of about two hundred degrees per second.

The speed of the eye across the page, but not the movement itself, it interferes with perception, and is only during the brief pause between movements that we actually read. Because our sensation of reading is related to the continuity of the text on the page or the unfolding of the text on the screen, to assimilate entire sentences or thoughts, and not with the actual movement of the eyes (Cf. Manguel, 1997).

Reading, for Leffa (1996), in its mechanical form, occurs through fixations of the eyes on certain segments of the text, which can be a word or a small group of words. The reader, apparently, does not process the letters that make up a given segment linearly, from left to right, but simultaneously. Just as the letters are also not processed in full, in all their details, but only in their distinctive features.

Eye movement during reading occurs through a sequence of pauses and jumps. The eyes do not glide in a uniform movement over the text, but advance by jumping from one point to another. It is during pauses, by fixing the eyes on the text, that the visual processing of printed characters takes place.

Thus, still according to Leffa (1996), literature statistics on eye movements have revealed the following data, in terms of averages: the number of fixations per minute is 240; the fixing distance from one point to another is 25 mm; the adult reader reads an average of 250 words per minute; the duration of each fixation corresponds to 250 milliseconds; the eyes not only jump forward, but also make countless regressions.

Such movements can vary not only from person to person, but undergo significant changes according to the content read; the

semantic content may or may not cooperate for faster understanding. Regarding this, Leffa (1996:68) states:

> More important than averages, however, are variations that occur not only between subjects, but also within subjects. Thus, within the inter-subject variation, we know that adult readers generally read 150 to 400 words per minute, discounting the exceptions that fall below and above these numbers. In intra-subject variation, we have the duration of fixation that varies according to the semantic difficulty of the text. While in the easiest semantic segments, fixation lasts around 150 milliseconds, in the most difficult segments the duration increases to 375.

The number of regressive fixations measures not only the quality of reading, but also characteristics of the text and, by inference, the mental processes of comprehension.

Good and Bad readers make regressions, but the greater the difficulty of the text, the greater the number of regressions.

Eye Tracking, in accordance with the studies by Klein and Bulla (2010), is the paradigm that studies eye movements during reading and represents one of the most advanced and improved techniques for evaluating language processing, as it observes the performance of "most transparent window from the brain to the world: the eyes."

The eyes are never still, they always move in one direction. These movements can be fast, slow, short, long, jump, and can also occur in two directions, to the right or to the left. All these movements are used to infer how certain information is processed.

Eye movements, according to Macedo et al (2008 apud Klein and Bulla), are limited to three types: fixations, a brief period in which the eye remains observing a small area of the stimulus; saccades, jumps from one fixation to the next fixation that the eye makes; and regressions, also called regressive saccades, movements made in the opposite direction of reading.

Besides, regarding the acquisition of the act of reading, Manguel (1997:54) describes:

> To understand a text, wrote Dr. Merlin C. Wittrock in the 1980s, "we don't just read it, in the strict sense of the word: we construct meaning for it." In this complex process, "readers take care of the text. They create images and verbal transformations to represent their meaning. Most importantly, they generate meaning as they read, building relationships between their knowledge, their memory of experience, and the sentences, paragraphs, and written passages." Reading, then, is not an automatic process of capturing a text like photosensitive paper captures light, but a disconcerting, labyrinthine, common and yet personal process of reconstruction.

SOCIO COGNITIVE ASPECTS OF THE ACT OF READING

The ability to understand reading is related to the complexity of the individual's cognitive structure. Thus, in the activity of reading and producing meaning, we put into action various socio-cognitive strategies through which textual processing is carried out and various types of knowledge that we have stored in memory are mobilized.

We rely on Kock and Elias (2006:39), to state that the textual processing is strategic, readers, faced with a text, "simultaneously carry out several interpretative steps that are finalistically oriented, effective, efficient, flexible and extremely fast."

For textual processing, according to Kock (2002), there are three major knowledge systems: linguistic knowledge, encyclopedic knowledge and interactional knowledge.

Linguistic knowledge, for Kock and Elias (2006), encompasses grammatical and lexical knowledge. Based on this type of knowledge, we can understand the organization of linguistic material on the textual surface, the

lexical selection appropriate to the topic.

Encyclopedic or world knowledge refers to general knowledge about the world, as well as knowledge regarding personal experiences and notable events, allowing the production of meaning.

Interactional knowledge, the researchers report, is that which occurs through language and encompasses: illocutionary, communicational, metacommunicative and superstructural knowledge. Namely, illocutionary is what allows us to recognize the objectives or purposes intended by the text producer in a given interaction situation. Communicational knowledge concerns the amount of information necessary in a concrete communicative situation so that the interlocutor is able to reconstruct the objective of text production, as well as the selection of the linguistic variant appropriate to the interaction situation and the genre appropriate to the communicative situation.

Metacommunicative knowledge is that which ensures the speaker understands the text to achieve acceptance by the partner of the objectives with which it is produced. Superstructural knowledge, according to Kock and Elias (2006: 54), or about textual genres, "allows the identification of texts as appropriate exemplars for the different events of social life. It involves knowledge about the macrocategories or global units that distinguish various types of texts".

We can say, therefore, that reading is not just about understanding words. When starting to decode a text, what the reader does, albeit unconsciously, is resort to socio-cognitive strategies to make sense of the text.

Reading, in the sense of understanding the word, written texts, is a multifaceted cognitive activity, as it involves different elements and aspects, but it only occurs if there is a surface for the physical performance of this activity.

READING ON OTHER SURFACES: FROM THE CINEMA SCREEN TO THE COMPUTER SCREEN

After transcending the Church, reading began to incorporate other places, such as product labels, signs in stores, advertising totems. Furthermore, reading begins to follow other platforms, which were not usual for the population, such as cinema, which starts to broadcast writing in order to help understand the plot. In the first part of the century, silent cinema told stories with subtitles at intervals that needed to be read to understand the plot.

Reading these subtitles, in addition to reading newspapers, constituted the reading of hundreds of millions of people around the world. Reading was an important part of social integration. Unlike silent films, this activity based entirely on reading, even with unimaginable implications for the future, requires an active, direct and integral involvement with the written word.

With the arrival of the personal computer in the 1970s, reading underwent a new transformation. In fact, in many cases, the written and read word came to replace the spoken word: instead of visiting, meeting or calling someone, many preferred to use email, chat rooms and instant messaging applications.

The internet emerged and changed people's behavior. In its first phase, the internet implemented solitude: people started working from home and communicating virtually. Currently there is a concern about transforming solitude into social occasions. Thus, other models of communication and formation of virtual communities have become possible. But it seems essential to understand the language at work in such interactive contexts.

In line with what happened to cinema and so many other media and technologies, the internet has, in recent years, inaugurated new

ways of managing information, of producing knowledge, of establishing sociocultural relationships. Certainly not everything is completely innovative. In history, there is nothing that can be done without resorting to what has already been lived, seen, experienced and used productively. However, the impact of the internet on different segments of our society brings with it an aura of novelty and modernity of references to authors and theories, as well as referencing the results found.

FINAL CONSIDERATIONS

From our studies, we were able to see that as the physical movements of the act of reading interfere with the understanding and assimilation of the content read, therefore, the more one reads, the more fluency one has in reading, therefore, those who have the habit of reading and effectively assimilate the content read, read faster and manage to accumulate a greater amount of information.

However, according to studies by Kock and Elias, not only the physical act of reading interferes with the act of reading, but also linguistic, encyclopedic and interactional knowledge. We see, through our studies, that all of these are interconnected, so the more linguistic knowledge the individual acquires, the more he has the possibility of acquiring encyclopedic and interactional knowledge.

In an increasingly connected world, in which multimodal writing is present in a large part of human interactions, knowing how to read and interpret, not just words, but symbols and expressions, is a highlight in humanity. Even though in communication through text, elements are often missing that only appear in face-to-face interaction, such as the intonation of speech: hand gestures, body posture, orientation, the speaker's gaze and facial expression. These elements try to be reproduced in some way in the CMC. If the interlocutor wants to "shout" in writing, he uses capital letters, if he wants to emphasize a given word or syllable, he repeats a vowel or the final consonant.

The undesirable effects of ambiguity itself (and possibilities of misunderstanding) in written language are undeniable, enhanced by the agility of those who write on the one hand, and those who read, on the other.

When we think about the issue of teaching and its relationship with reading, we see that the educator who does not have proficiency in reading will have difficulties in building his teaching practice, as he will depend on others to receive information and, consequently, will transmit this to his students, who They may also have problems with reading competence.

You can't unlearn how to read. Once the individual begins the reading process, it cannot be stopped or made to regress. This way, you can read anything, anywhere, on any topic, in any area. Reading has the power to transform the individual and we, educators, have a duty to show them this.

THANKS

REFERENCES

KOCH, I. G. V. O texto e a construção de sentidos. 9. ed. São Paulo: Contexto, 2007.

_____. A coesão textual. 22. ed. São Paulo: Contexto, 2012[1989].

_____. Introdução à linguística textual. São Paulo: Martins Fontes, 2006.

_____; & ELIAS, V. M. S. Ler e compreender: os sentidos do texto. 2. Ed. São Paulo: Contexto, 2006.

_____; & ELIAS, V. M. S. Ler e escrever: estratégias de produção textual. São Paulo: Contexto, 2009.

LEFFA, V. J. Uma perspectiva psicolingüística. Sagra – Porto Alegre:D.C. Luzzato, 1996.

MANGUEL, A. Uma história da leitura. Tradução Pedro Maia Soares. – São Paulo: Companhia das Letras, 1997.

MANGUEL, A.Lendo imagens: uma história de amor e ódio. Tradução Rubens Figueiredo, Rosaura Eichemberg, Cláudia Strauch. São Paulo: Companhia das Letras, 2003

MANUEL, A. Lendo imagens: uma história de amor e ódio. Tradução de Rubens Figueiredo, Rosaura Eichemberg, Cláudia Strauch. – São Paulo: Companhia das Letras, 2001.

MARCUSCHI, L. A. & XAVIER, A. C. Hipertexto e gêneros digitais. 2 ed. Rio de Janeiro, RJ: Lucerna, 2005.

MARCUSCHI, L. A. Gêneros textuais emergentes no contexto da tecnologia digital. In: Hipertexto e gêneros digitais: novas formas de construção de sentido. Rio de Janeiro: Editora Lucerna, 2004.