READING PRACTICES AND DIGITAL LITERACY OF CHILDREN AND TEENAGERS IN THE COVID-19 PANDEMIC

PRÁTICAS DE LEITURA E LETRAMENTOS DIGITAIS DE CRIANÇAS E ADOLESCENTES NA PANDEMIA DO COVID-19

PRÁCTICAS DE LECTURA Y CARTAS DIGITALES DE NIÑOS Y ADOLESCENTES EN LA PANDEMIA COVID-19

Ana Paula SANTANA¹
Lais DONIDA²

ABSTRACT: The current pandemic scenario promoted an opportune moment to think the implications of reading practices carried out, mainly, in digital support. This paper’s objective is to analyze the practices of reading and digital literacy of children and teenagers during the COVID-19 pandemic. The methodology was to interview children and youth (between 7 and 17 years old) and their parents through a semi-structured online questionnaire. The results indicate that digital literacy practices are mainly focused on games, online classes, and the use of social networks. Reading digital books has not been a recurrent practice in families, as well as watching subtitled movies. Thus, it is observed that the current moment emphasizes contexts that evoke a certain use of TDIC, where practices prior to the pandemic have become more intensive and have promoted changes not only in reading support, but in forms of cultural transmission.


RESUMO: O cenário pandêmico atual revelou-se como um momento oportuno para se (re)pensar as implicações de práticas de leitura realizadas, principalmente, no suporte digital. Dessa forma, o objetivo desse artigo é analisar as práticas de leituras e letamentos digitais de crianças e adolescentes durante a pandemia do COVID-19. Os delineamentos metodológicos envolveram uma pesquisa com 30 participantes, entre sete e 17 anos, e seus familiares, por meio de um questionário semiestruturado on-line. Os resultados apontam que as práticas de leitamentos digitais voltam-se principalmente a jogos, aulas on-line e utilização de redes sociais. A leitura de livros digitais não tem sido uma prática recorrente nas famílias, assim como assistir filmes legendados. Dessa forma, observa-se que o atual momento enfatiza contextos que evocam um determinado uso das Tecnologias Digitais de Informação e Comunicação (TDIC), em que as práticas existentes antes da pandemia

¹ Federal University of Santa Catarina (UFSC), Florianópolis – SC – Brazil. Speech therapist. Professor of the Speech Therapy Course and of the Postgraduate Program in Linguistics. Master and Doctorate in Linguistics (UNICAMP). ORCID: https://orcid.org/0000-0002-9508-9866. E-mail: anaposantana@hotmail.com

² Federal University of Santa Catarina (UFSC), Florianópolis – SC – Brazil. Speech therapist. Master's and doctoral student in Linguistics (UFSC). Specialist in Inclusive Education (UDESC). ORCID: https://orcid.org/0000-0003-3508-7030. E-mail: lais.donida@gmail.com
tornaram-se mais intensivas e promoveram mudanças não apenas no suporte de leitura, mas nas formas de transmissão cultural.

**PALAVRAS-CHAVE**: TDIC. Aprendizagem. Letramento. Pandemia.

**RESUMEN**: El actual escenario pandémico resultó ser un momento oportuno para pensar las implicaciones de las prácticas lectoras realizadas, principalmente en soporte digital. Así, el objetivo de este artículo es analizar las prácticas de lectura y alfabetización digital de niños y adolescentes durante la pandemia COVID-19. Los diseño metodológicos involucraron una encuesta a 30 participantes, entre siete y 17 años, y sus familias, a través de un cuestionario online semiestructurado. Los resultados muestran que las prácticas de alfabetización digital se centran principalmente en los juegos, las clases en línea y el uso de las redes sociales. La lectura de libros digitales no ha sido una práctica recurrente en las familias, así como la visualización de películas subtituladas. Así, se observa que el momento actual enfatiza contextos que evocan un cierto uso del TDIC, en el que las prácticas existentes antes de la pandemia se convirtieron en pretexto para (re) pensar la lectura y la mediación de los escolares a través de la alfabetización digital.

**PALAVRAS-CLAVE**: TDIC. Aprendizaje. Alfabetización. Pandemia.

**Introduction**

Technological transformations are not a recent phenomenon, they have been present in modern societies since the last century, with the emergence of the so-called Information and Communication Technologies (ICT). Currently, the term ICT has been expanded to Digital Information and Communication Technologies (DICT), which now includes computers, tablets, smartphones, and any device that allows access to the Internet.

In this scenario, the concept of eCulture arises, which refers to technological development, the creation of high-speed data transmission networks, with new dimensions and scope in everyday social practices in our society, ensuring innovation in media, literacy practices, techniques, practices and attitudes, ways of thinking and values that develop along with the growth of graphocentric cultures based on digital goods. In these spaces, there is a plethora of practices involving the use of DICTs, such as the involvement of cell phones, computers, Ipods, e-readers, digital TV, virtual chats (VR Chat), social networks (Twitter, Facebook, Orkut, Skoob, Instagram, etc.), web conferencing, software, digital games, user experience platforms (Google packages), Kindle, and a myriad of new "structures" and understandings of relating to cultural goods (TEIXEIRA, 2019).

In this same context, a new term emerges: Homo Zappiens, coined by Veen and Vrakking (2009) to situate a generation of people who grew up using digital technology.
Thus, social practices also change: subjects do several things at the same time, deal with different speeds of information, are always in a hurry, without patience, involved by a sensory bombardment and excess of images. In the authors' words:

**Homo zappiens** is an active processor of information, solves problems very skillfully using game strategies, and knows how to communicate very well. Their relationship with school has changed profoundly, as Homo zappiens children and adolescents consider school to be only one of the points of interest in their lives. Much more important to them are their networks of friends, their part-time jobs, and their weekend gatherings. Homo zappiens seems to consider schools as institutions that are not connected to their world, as something irrelevant as far as their everyday life is concerned. Within schools, Homo zappiens exhibits hyperactive behavior and attention limited to short intervals of time, which worries both parents and teachers. But Homo zappiens wants to be in control of what one gets involved with and has no patience to listen to a teacher explain the world according to his own convictions. In fact, Homo zappiens is digital and school is analog (VEEN, VRAKKING, 2009, p. 12, our translation).

Thus, there are terminologies for the new generation of the digital world, such as changes in behaviors and attitudes mainly in relation to reading practices. This panorama is woven just so we can understand that it is in this scenario that the pandemic highlights digital practices that already exist but are little emphasized in social environments. The media also start to expand their representation, now that they present themselves as the only possibility of interaction among family and friends, and as a way of learning that replaces the face-to-face school.

Based on the above, the objective of this article is to analyze the reading and digital literacy practices of children and adolescents during the COVID-19 pandemic. To this end, we will now go through some theoretical aspects relevant to the theme, and then there is the presentation of data and discussion.

**DICT and Education in the Context of the Pandemic**

Initially, it is relevant to address the concepts of digital literacy and digital literacy. **Digital literacy** would be the learning of reading and writing through digital equipment, involving linguistic signs, verbal, and non-verbal language systems, as well as the understanding of the computer operating system, desktop, icons, and shortcuts. The concept of digital literacy is defined as social practices of reading, writing, and speaking/signing that involve considering that such practices are constantly changing and depend on the social groups and the historicity of the agents involved. Digital literacy is considered the state or
condition that subjects acquire when they appropriate the new digital technology. Being digitally literate includes, in addition to functional knowledge about the use of technology made possible by the computer, a critical knowledge of this use, that is, to have a critical and discerning attitude in front of a universe of information to which one is exposed daily, to organize it, apply it, interacting with the other and seeking to occupy his role as an active citizen in society (GARCIA, 2016; DONIDA et al., 2019).

The democratization of access to technologies allows inserting the subject in eCulture, so that one can play an active and interactive role in society through access to technology in their professional, daily, educational, cultural activities, etc. For this, one needs three basic elements: computer, access to the network, and mastery of these tools (VIZENTIN, 2016). In this context, digital exclusion refers not only to those who do not have access to these technologies, but also to those who, despite having access to them, do not master them (CASTELLS, 2003).

Several debates and discussions held by the United Nations Educational, Scientific and Cultural Organization (UNESCO), by the Ministry of Education (MEC), by public universities, in congresses, lectures and symposiums about the DICT in the educational system have been discussing and encouraging public policies in the field of education for a long time. Discussions about: changes in the dynamics of teaching, improvements in the use of DICT in the classroom, teacher training, awareness and need to include technologies in school curricula and development of skills and competencies of teachers and students to handle and deal with technological artifacts (PIMENTEL, 2018).

It should be added that the New Common National Curricular Base (BNCC) brings throughout the document references to the importance of working with DICT, the protagonism for the expansion of digital culture, new forms of multimedia and multimodal interaction and social networking. In short, activities should be carried out mediated by different languages: verbal (oral or visuospatial - such as Libras3 - and written), corporal, visual, sound and, contemporarily, digital (BRASIL, 2017).

This discussion is extremely important, since research indicates that teachers were not in the habit of using various digital technologies in the classroom. Moreover, there was among teachers a feeling of being outdated regarding information and communication technologies and they hoped that the school could contribute more to this knowledge (SCHUHMACHER; FILHO, 2017).

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3 Brazilian Sign Language.
It is also known that many students, despite being called "digital natives", do not know how to deal with all the potential that new technologies offer. Thus, students could not be considered digitally literate, but they would be in a process of digital literacy, in which the school would be the main institution promoting digital literacy practices and readings in digital support (GARCIA, 2016).

The students' relatives, in turn, would be what is conventionally called digital illiterate or digital immigrants, as they still have many difficulties in performing digital literacy and reading practices. Despite this, during the pandemic, the role of the family was highlighted in the government guidelines for assistance in virtual activities (BRASIL, 2020), as follows:

- In Children's Education: Virtual approximation of teachers with families, in order to strengthen ties and make suggestions for activities to children and parents and guardians;

- In Elementary School/Elementary Years: It is suggested that education networks and schools guide families with practical and structured scripts to accompany the resolution of activities by children. However, the solutions proposed by the networks should not assume that the "family mediators" replace the teacher's activity. The non-face-to-face activities proposed should delimit the role of the adults who live with the students at home and guide them to organize a daily routine.

- In Elementary/Senior High School and High School: Adult supervision of activities can be done through guidance and monitoring with the support of plans, goals, faceto-face or online study time, since at this stage students have more autonomy. In this case, the orientation is that non-face-to-face pedagogical activities have more space. Among the suggestions for activities is the distribution of educational videos.

From the above, we see that the pandemic calls on students, teachers, and families to modify their literacy practices in the face of the new context that presents itself: the school on digital screens.

**Methodological outlines**

The methodological paths traced for this research evidence a quasi-quantitative study of descriptive type. Thirty children and adolescents (between seven and 17 years old) and their families participated. Of these, 21 studied in private schools and nine in public schools. The invitation to participate in the research was made through digital media in an open and
random way, without specific direction, in the personal contact groups of the researchers themselves.

For data collection, we prepared a semi-structured questionnaire involving questions related to literacy practices and digital readings of family members and children and adolescents. For this article, a cut of the data collected was carried out. The questionnaire was prepared and made available for access through Google Forms.

The analyses involved a prior categorization of the data based on content analysis (BARDIN, 2011). All subjects signed the TCLE that was approved by the Ethics Committee No. 33715420.7.0000.0121.

**Results and discussions**

The categorization of the data for analysis from the cut made for this article evidenced two groups of discussions around the theme: i. Digital literacy practices performed by children and adolescents during the pandemic; ii. Reports from family members about the use of DICT by children and adolescents.

**Literacy practices and digital readings performed by children and adolescents during the pandemic**

The two charts below describe, in general, the main activities performed by the research participants. In Chart 1, one can observe that the five most common practices performed by the children and adolescents in the survey are related to the access and consumption of video streaming platforms, followed by streaming platforms for movies and series, access to school content, games, and music.
The streaming video platform mentioned was Youtube. Regarding the games mentioned by the participants are: PK XD, Minecraft, Jurassic World, Among Us, Dino Hunter, Deadly Shores Hitman, The Battle of Polytopia, Rodeo Stampede, Clear Vision 4, World War Polygonal, Star Wars Commander, Free Fire, Mine Word, Roblox, Avakin Life, Brawl Stars, Subway Surf. Among the platforms for streaming movies and series, one can mention Netflix, HBO, DisneyPlus, GloboPlay.

In addition to these practices, children and adolescents mentioned making use of DICT to access school content shared during the pandemic and, as can be seen in Chart 2, below, school activities involved online exercises, reading texts in digital support, discussions in chats and online forums, access to websites for research, consumption of news and blogs.
In addition, the reading practices involving the school were investigated, which turned mainly to school exercises and readings of texts shared by the teacher, which became predominantly via the Internet (computer, cell phone or tablet).

Another aspect observed was that 63% of the participants stated that they do not read books that are not related to the class, that is, reading is done as an academic obligation. In contrast to the expansion of the use of DICT to access school practices, the digital reading of books, comic books or comics for pleasure or leisure did not seem to be a recurring practice, being referenced by only 36.7% of the participants. Of these digital readings, the following were cited as examples: audiobooks, comics (such as Turma da Mônica), children's stories, anime (Gacha Life), short stories (Mystery in Venice), Instagram strips, and fanfics.

It can be seen that although there is a change in preferences from reading in physical support (printed books) to reading practices in digital support, there is not yet a replacement of such practices by digital books. As an example, we can emphasize that the Kindle was not mentioned as a platform to access books, not even the search for PDFs directly on Google. However, it is reiterated that the cost of the Kindle and the purchase of e-books or e-pubs may influence the mention of this type of practice.

This leads us to question the various factors that influence access to and consumption of cultural goods, such as the impact of the media, indications, family mediation, social inequalities regarding access to education and culture, etc. In any case, there is in sight an interesting field of research to investigate the choices and transmission of certain cultural
goods, certain digital practices, and digital readings in families, among children and young people, and at school.

Another aspect evidenced was the preference for reading comics reported by children and adolescents, as shown in chart 3 below:

**Chart 3** – Readings performed by the participants through the DTIC

Source: Research data

Comics are stories with narrative structure, direct texts with balloons and captions, and visual semiosis. Comics are very varied and involve texts for all ages. The choice for this genre is also related to the *multisemiotic* and *multimedia* possibilities that can favor reading comprehension. Thus, there seems to be, in the group participating in the research, intensive reading practices of certain genres (Comics, such as Turma da Mônica, and novels, such as Diary of a Banana, cited among the works).

This decrease in reading practices has already been reported by some authors. Wolff (2019), for example, points out that, in the case of the new generation of readers, there are significant differences in brain processing, with a much shorter attention span, called by the author "grasshopper attention", always jumping, moving from one thing to another at a much faster speed than we are used to. There are also difficulties in understanding more complex syntactic structures, because new readers read little, and the reading done is more informative and closer to orality. As literatures are genres little chosen by young people, there are still...
difficulties related to imagination and empathy, which has been provided by reading literary genres. However, it should be noted that the changes in reading practices underway reflect modifications arising from an ongoing sociocultural transformation, and further research is needed to understand how new practices and uses of DICTs influence social transformations.

**Reports from family members about the use of DICT by children and adolescents**

Family members have played an important role in the transmission of cultural capital and the insertion of sons and daughters in graphocentric societies for a long time. However, in recent decades, significant changes in family dynamics have been observed. If, on the one hand, families are still - or were - responsible for controlling and maintaining the access of children and adolescents to technologies, on the other hand, digital literacies - which are many and constantly changing - put in check the role of the family as transmitter of new knowledge (BARRETO, 2005; PONTE, 2011).

Below there is information about the time of use of DICT according to the family members of the children and adolescents participating in the research:

**Chart 4** – Time of use of DICT by children and adolescents, according to family members

![Chart 4](chart4.png)

Source: Research data
The challenge of the practices and uses of DICT in young people has been the subject of debate, especially regarding the effects of access to eCulture. On one hand, there is the emphasis on the possibilities that would be added to the teaching and learning processes, with new forms of virtual contact in a globalized world, reducing distances and sharing knowledge. On the other hand, there are movements that criticize the access to digital media, with research that highlights the excesses to screens as a major current problem and cause of psychiatric diagnoses (WOLFF, 2019).

It is in this sense that the theme "electronic intoxication" has already been widely discussed in recent years. Baptista and Jerusalinsly (2017) present the term "electronic pacifier," coined with the intention of signifying dependence on the use of electronic devices (tablets and cell phones). The authors refer that this dependence implies several symptoms: experience of absence of self; apathy; food selectivity; sleep difficulties; social restriction; reduction of the interest spectrum; obesity; feeling that the child has lost its ability to be with others; selective reduction of the ability to affect itself with the other (relationship disorder); belief that the other is always available; difficulties in reading text instead of images; difficulty in waiting, having to listen and accept the other's arguments.

Furthermore, the Brazilian Society of Pediatrics (SBP), in 2020, pointed out the importance of media literacy and parental mediation regarding the exposure of children and youth to screens. Among the recommendations are: avoid exposure of children under two years of age to screens, even passively; limit screen time to a maximum of one hour a day, always under supervision, for children aged two to five years; limit screen time to a maximum of one or two hours a day, always under supervision, for children aged six to 10 years; limit screen and video game time to two or three hours a day, always under supervision; never "stay up all night" playing for adolescents aged 11 to 18 years; for all ages no screens during meals and disconnect one to two hours before bedtime.

The discussion among the medical community about gaming disorders has already been defined by the World Health Organization (WHO) and even has a diagnosis, the ICD 6C51: "Persistent or recurrent pattern of gaming behavior ('digital games' or 'video games'), which may be online (i.e., over the Internet) or offline [...]" (PSYCHIATRY ONLINE BRAZIL, 2018, online).

The concern with addiction to digital gaming practices has made parents apprehensive and demanded their even greater participation in the dynamics of studying school tasks. Pontes (2011) points out changes in family dynamics regarding the role of mothers in the mediation of school tasks, including the mediation of tasks involving DICT. As shown below
in Chart 5, family members - and in the case of this research, primarily mothers - report being able to help their sons and daughters in school activities during the pandemic.

**Chart 5** – Family members' and sons' and daughters' perception of support in school assignments

<table>
<thead>
<tr>
<th>Children who ask their parents for help</th>
<th>Parents who are able to help their children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 25%</td>
<td>Yes 75%</td>
</tr>
</tbody>
</table>

Source: Research data

However, despite the mothers mentioning that they help their sons and daughters, the mediations in the activities are different and still reveal a situation of restricted digital literacy, as can be seen in the reports that follow in Table 1 below:

**Table 1** – Examples of help with school assignments

<table>
<thead>
<tr>
<th>Help cited by family members (mothers)</th>
<th>Help cited by sons and daughters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervising assignments sent by the school/Helping with all assignments/Clearing up doubts</td>
<td>She reads and I make the answers My mother guides me in my activities</td>
</tr>
<tr>
<td>Opening &quot;online student&quot;/Printing school activities/Search help</td>
<td>Help with a math account</td>
</tr>
<tr>
<td>Watching the classes (instructional videos) together and discussing the subject</td>
<td>Guide me on how to do the activity, access content</td>
</tr>
<tr>
<td>Preparation of work and text production/Assistance with tests</td>
<td>My mom helps me with my research and assignments Help to review exam content</td>
</tr>
<tr>
<td>Interpreting teachers' questions/helping to ask them/Explaining meaning of words</td>
<td>My brother explains the questions to me My mother helps me with the readings Helps you understand what the teacher asks you to do</td>
</tr>
</tbody>
</table>

Source: Research data
The mother figure and the older siblings are the ones most often called upon by the students for help with the activities. The help is of various kinds: technical aspects (opening classes, printing); didactic aspects (explanation of content, help with tests); linguistic aspects (reading and interpretation of text). However, no difficulties with digital media or even difficulties with search engines were mentioned (e.g., knowledge of the difference between sites that produce fake news and reliable sites). Despite this, Pontes (2011) reflects that it is necessary to better analyze the digital practices of mothers involved in the activities of support, mediation and cultural transmission to their sons and daughters, since the practices and uses of ICTs would be located only in the professional sphere, thus lacking digital literacy practices located in the interaction context of their sons and daughters.

The pandemic promotes, thus, an increase in digital literacy practices that have little legitimacy for the students and consequently for the family members themselves, who must mediate new situations for which they are not prepared. There is a need here for a mediation between the DTIC, school, leisure (the new forms of entertainment at home offered by the DTIC) and the new interactions on the digital screen. In the words of Pontes (2011, p. 46, our translation), which corroborates with the data found in the present research,

Among the adolescents who use the Internet presented here, we can distinguish a mostly private use, linked to "schoolwork," communication with friends, and entertainment, in a contrast between cultures (school, leisure) that insist on disconnecting, with no apparent transference from one to the other.

In addition, family members point out the advantages and disadvantages of the use of DICT that they observe in their daily lives. You can see the answers in Table 2 below:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to school/Distance learning/ Increased interest in typing instead of writing</td>
<td>All gaming and no learning/ Prefer media to reading/ Time wasted, don't like to read books</td>
</tr>
<tr>
<td>Information and technical knowledge/research</td>
<td>Too much information/ Difficulties to perform school activities</td>
</tr>
<tr>
<td>Leisure and Entertainment (listening to music, listening to stories)</td>
<td>Sedentary lifestyle/ Physical apathy/ Dismisses pleasures of being a child (playing, drawing, talking, imagining)</td>
</tr>
<tr>
<td>Interaction with friends and family</td>
<td>Lack of interaction/ Breakdown of the affective human relationship/ Disconnecting from the real world</td>
</tr>
<tr>
<td>Improved focus of attention</td>
<td>Difficulty managing time/ Don't know when to stop/ Gaming addiction</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Access things that do not add value</td>
</tr>
</tbody>
</table>

Source: Research data
The reports show that parents recognize the advances and advantages offered by DICT, especially in times of pandemic (possibility of attending class, seeing family and friends on screens, increasing knowledge and research and knowledge). However, one still sees a negative impact coming from the quantity and quality of use of DTIC, with consequences for children's behavior and, consequently, for reading and learning practices. Thus, the reports evidence these changes in behavior and social practices ("no longer plays games", "less interaction", "lost the habit of reading"). In this case, we see that the cultural transmission of such practices was carried out between the peer group itself and the consumer industry.

It must be taken into consideration that most of the participating families are from private schools, so they have greater possibilities of having access to digital media and internet. The financial aspect has implications for the access to such practices (latest generation computer and smartphone, unlimited internet access, individual digital media, acquisition of electronic games, among others). These social inequalities in the use of ICT directly affect the practices of use (PONTES, 2011).

From the discussions undertaken, it is observed that there are possibilities and challenges to be balanced regarding the use of DICT, especially in the family and school context in the current pandemic period. If, on the one hand, there are numerous benefits that have been pointed out for some time, such as the democratization of access to cultural goods, to knowledge, the reduction of distance between people, the sharing of information, and the accessibility of people who were previously socially excluded, there are also, on the other hand, negative aspects that need to be considered. Among the obstacles to the use of DTIC and the promotion of digital literacy practices, one must consider the inequalities in access to technologies, the social changes that were already underway, such as the excessive exposure of children and young people to screens and without the mediation of activities, even causing significant difficulties that influence teaching and school learning.

**Final considerations**

This paper sought to analyze the reading and digital literacy practices of children and adolescents during the COVID-19 pandemic. It is important to note that this research cannot be generalized, because it is a very small group. However, it already points to some aspects that can be explored and discussed from the current context in future research.
From the above, it is observed that there is a modification in social practices regarding behaviors, leisure, reading, learning and social interactions. The pandemic highlights contexts that evoke a certain knowledge about the use of DICT: teacher training, student learning, family mediation. The main fact is that it is not only a matter of "using" computers and cell phones, but of making these users critical people who are aware of the quality and quantity of the interactions they participate in through DICT.

It is evident that the current moment emphasizes contexts that evoke a certain use of DICTs, in which the practices that existed before the pandemic became more intensive and promoted changes not only in the reading support, but in the forms of cultural transmission. Within family environments, changes are enunciated not only in the role of mothers in the mediation of knowledge for their sons and daughters, but also emphasizes, for the first time, a transmission that comes from outside the family: coming from the interaction and mediation with other users on social media. This article points to the need for further studies on these changes to better understand the relationship between school, family, and student in their insertion into the digital culture.

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