

Digital literacy and remote learning: students' perceptions of learning

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Abstract

More and more school institutions make use of digital technologies. At this time of pandemic, caused by the dissemination of COVID-19, it is essential to use technology to continue teaching. This article aims to reflect on digital literacy for the use of the Sigeduc platform during remote learning. To support this work, authors such as Buzato (2006), Dudeney, Hockly and Pegrum (2016), Freitas (2010), Kleiman (1995), Soares (2002), Souza (2007) and Zacharias (2016) will be essential. For this, a search was carried out using the Google Forms platform, with high school students from a state public school in Mossoró (RN). These students have access to activities through Sigeduc. The survey results show that many students have not acquired the proper digital literacy to be able to participate in remote classes, as they are unable to use the teaching platform.

Keywords: Digital Literacy. Remote Learning. Technologie.

O letramento digital e o ensino remoto: a percepção dos estudantes sobre a aprendizagem

Resumo

Cada vez mais as instituições escolares fazem uso das tecnologias digitais. Nesse momento de pandemia, ocasionada pela disseminação da COVID-19, é imprescindível o uso da tecnologia a fim de dar continuidade ao ensino. Este artigo tem o objetivo de refletir acerca do letramento digital para o uso da plataforma Sigeduc durante o ensino remoto. Para embasar este trabalho, autores como Buzato (2006), Dudeney, Hockly e Pegrum (2016), Freitas (2010), Kleiman (1995), Soares (2002), Souza (2007) e Zacharias (2016) serão essenciais. Para isso, foi feita uma pesquisa pela plataforma Google Forms, com estudantes do Ensino Médio de uma escola pública estadual de Mossoró (RN). Esses estudantes têm acesso às atividades por meio do Sigeduc. O resultado da pesquisa mostra que muitos estudantes não adquiriram o letramento digital adequado para poderem participar das aulas remotas, pois não conseguem utilizar a plataforma de ensino.

Palavras-chave: Letramento digital. Ensino remoto. Tecnologia.

1 Introduction



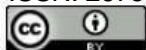
Technologies have enabled very important transformations in society. Technology is understood as any device that changes the way we produce and relate to society. The possibilities of using a tool make us realize how we are constantly assimilating new knowledge and building new meanings for "old" situations or objects with which we have lived for a long time.

Thus, the purpose of this article is to reflect on digital literacy for the use of the Sigiduc platform during the remote teaching instituted by the state schools. This teaching model has been used with greater intensity since the year 2020 because of the paralysis of in-person classes due to the pandemic that spread worldwide caused by SARS-CoV2, or Covid-19. As a result, schools and universities have had to adopt various strategies for teachers and students to continue with their classes, thus continuing the school year. Among the strategies adopted, remote teaching was part of everyday life in most schools.

On one hand, remote teaching has made it possible for students, even without being in the physical structure of the schools, to attend classes, acquiring knowledge related to school subjects and also learning new ones, such as accessing forums, chats, asynchronous and synchronous activities, downloading and sending activities. On the other hand, this teaching model also highlighted the need for learning made possible by technological means, which would enable students to achieve their goal, which was to learn the school contents, as we will see in the next topic.

New literacies for everyday interaction practices

A portion of the students already arrive in the classroom with a lot of information, they are compulsive users of the Internet, they have e-mail, they download music on their cell phones or computers, they watch movies, they know how to edit videos, images, etc. They can also interact with several people at the same time, in a chat application, as in a chat with a group of friends in person. We can even say that these students have a very significant digital literacy for performing some actions in an easy way for them. However,





these actions are somewhat limited, in the sense that they do what is common to them and part of their everyday life. Digital literacy is understood as

as the set of competencies necessary for an individual to understand and use information in a critical and strategic way, in multiple formats, coming from various sources and presented through the computer, in a critical and strategic way, being able to achieve their goals, often shared socially and culturally (SOUZA, 2007, p. 60).

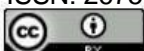
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If we take into account that the individual needs to understand and use "information critically and strategically, in multiple formats", then the fact of watching movies on the Internet, downloading e-mails or even interacting in a chat application cannot be understood, specifically, as digital literacy. For Souza (2007), there are two types of literacy: the restricted, which refers to the use of the computer in a functional way, taking into account the skill in a mechanical way, and the broad, which involves the sociocultural, political, and historical context, leading the user to have a critical attitude towards the use of the Internet.

When we talk about digital literacy, we are not just talking about learning repetitive commands to be able to access some page or website, or even knowing how to surf the Internet. Or even more basic: turning on and using a computer. It is more than that. We can understand that, to navigate on the internet or use the computer programs, the user will need notions or some skills that, without them, he will not be able to complete his journey. To do this, he will need enough knowledge to analyze the paths he must follow in order to find the desired information.

Thus, he must have certain skills to associate, infer, compare, differentiate, among other actions, in view of the various formats of the texts with which he will be faced to produce meanings. Freitas (2010, p. 338) also understands digital literacy in relation to criticality:

Being digitally literate includes, in addition to functional knowledge about the use of the technology made possible by the computer, a critical knowledge of that use. Thus, becoming digitally literate means learning a new kind of discourse and is sometimes even akin to learning another language.





The author broadens the scope of the concept, extending it to the learning of "a new type of discourse," as the individual changes his or her attitude and way of relating to others and even to knowledge itself. Thus, besides mastering the commands of the machine, whose learning is essential to at least understand what is being done, it is also important to know how to use these commands to accomplish the proposed objectives when starting a task, such as accessing pages on a website, editing a Microsoft Word document, for example.

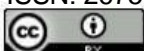
[...]Digital literacy starts from this pluralism, it will require both the appropriation of technologies - how to use the mouse, the keyboard, the scroll bar, turning devices on and off - and the development of skills to produce associations and understandings in multimedia spaces (ZACHARIAS, 2016, p. 21).

These two skills, knowing the computer and its use, and knowing how to navigate the navigable paths of the Internet, are part of digital literacy. The first, in a more basic way, refers to digital literacy; the second, to literacy itself. However, taking into account that there is not only one literacy, but several, individuals make use of several skills (DUDENEY; HOCKLY; PEGRUM, 2016). On the screen, individuals acquire new forms of knowledge.

One can conclude that the screen as a space for writing and reading brings not only new forms of access to information, but also new cognitive processes, new forms of knowledge, new ways of reading and writing, in short, a new literacy, that is, a new state or condition for those who practice writing and reading on the screen (SOARES, 2002, p. 152).

Soares (2002, p. 152) points out that individuals, when facing a new context and a new way of reading, acquire a new posture, obtaining new knowledge. With different technologies, students also appropriate new literacies. Reconfiguring the popular expression "everyone is good at one thing", we can understand that nobody masters everything. Not even those who are excellent web surfers know everything about the screen. The skills of part of the students are not complete, as we will see in the next topic. They are restricted to what is routine in their lives, such as accessing videos, for example.

Besides there being a restricted literacy and a broad one, in Souza's (2007) perspective, we can also understand that there are literacies used in specific contexts, as





Kleiman (1995, p. 18-19) points out: "Today we can define literacy as a set of social practices that use writing, as a symbolic system and as a technology, in specific contexts, for specific purposes". The author also points out that subjects develop some types of skills because the school is concerned with only one type of literacy, while in everyday life, they encounter several others. Thus, we reiterate that there are literacies, and not just one literacy.

In informal conversations with teachers, it is common to hear complaints that a number of students are unwilling to participate in asynchronous written activities in this period of remote learning. We believe that it is precisely because of the absence of specific practices of dealing with the media for school learning purposes, that is, for the purpose of editing activities in specific programs and sending materials produced to achieve the bimonthly grade.

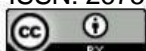
In the next topic, we will show, through a survey, how the absence of a specific literacy can be an obstacle for students to participate in school practices.

2 Methodology

Since the year 2020, most schools have had to adapt to a new way of teaching. Teachers and students began to use computers, cell phones, tablets, and the Internet to interact, taking school beyond the traditional classroom, located in a school environment. This has brought benefits and also losses for students, as shown by the data analyzed.

The research was done through the Google Forms platform, with high school students from a state public school in the city of Mossoró (RN). These students have access to the activities through the platform of the Integrated System of Education Management (SIGEDUC), managed by the Secretary of State for Education, Culture, Sports and Leisure (SEEC) of Rio Grande do Norte.

The questionnaire was done during the period of application of the virtual classes. 149 students answered the questionnaire, which aimed to assess their perception about remote teaching and contained six questions about the way they access the internet, the



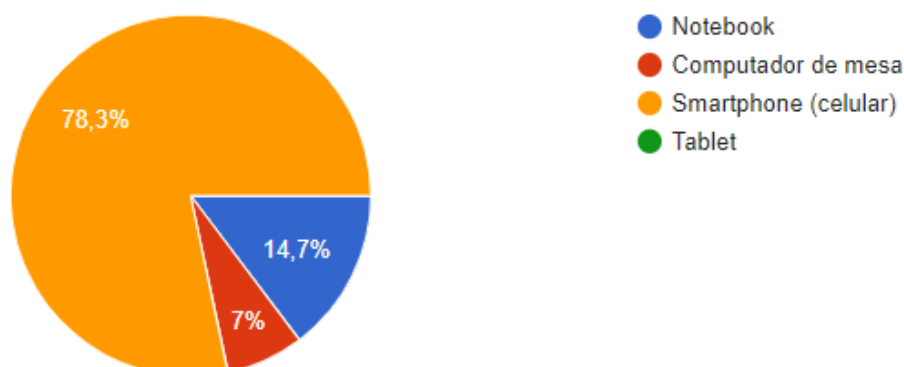
equipment used for access, whether they had access difficulties, and their opinion about remote teaching, among others. Of these, we selected four questions with the answers for analysis. The choice was made due to the proximity with the concepts of digital literacy and literacy in specific contexts.

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3 Results and Discussion

From the reading of the answers to the online questionnaire applied, the following analyses were made. Regarding the first question, "What equipment do you use to access the Internet?", is presented as shown in Chart 1:

Chart 1 - What equipment do you use to access the internet?



Source: Elaborated by the authors (2020).

If we take into account that a portion of the students come to class with a cell phone and use it for routine activities, usually linked to social networks, such as chatting with friends, for example, the first question corroborates the teachers' informal statements regarding the use of the device in the classroom. The result showed that the majority, 78.3%, uses the smartphone to access the internet and, consequently, to do their school activities; 14.7% uses the notebook and only 7% the desktop computer, and no student uses a tablet to access the internet.

With these data, we can understand that, for being of more common use, and for being a device used in the student's routine, both for communication with friends and relatives and for school activities and also for leisure, the smartphone is "inseparable" from the student's life. That is why most students access the Internet through their cell phones. Other than that, one can also deduce that it is easier to acquire a smartphone than a notebook or a computer.

The second question for analysis is "Do you find remote classes difficult?". The result presented was the following, as shown in Graph 2 below:

Graph 2 - Do you feel difficulty in remote classes?



Source: Elaborated by the authors (2020).

The objective of the question was to know the student's opinion regarding their difficulty or not to attend the remote classes. 17.8% said they had no difficulty; 76% said they had difficulty using the Sigeduc platform, and 6.2% had difficulty because they had no way to access it. The largest portion of students who claim to have difficulty in using the platform probably does not have the practice of using the tabs that Sigeduc presents, in which they must post activities in which it is necessary to attach some file.

If there is this difficulty, even if these students have skills related to internet access and the use of digital technologies, such as cell phones, for example, we can infer that a specific literacy is necessary for them to be able to use the study platform. As Buzato (2006, s.p),

Literacy, or more precisely, literacies, are social and cultural practices that have specific meanings and purposes within a social group, help maintain group cohesion and identity, are learned in collective events of reading and writing use, and therefore are different in different sociocultural contexts.

In this case, as the author states, literacy practices are different depending on the context in which individuals are. If students have this difficulty regarding the use of the study platform, it may indicate that they have not yet achieved the specific literacy to make use of Sigiduc.

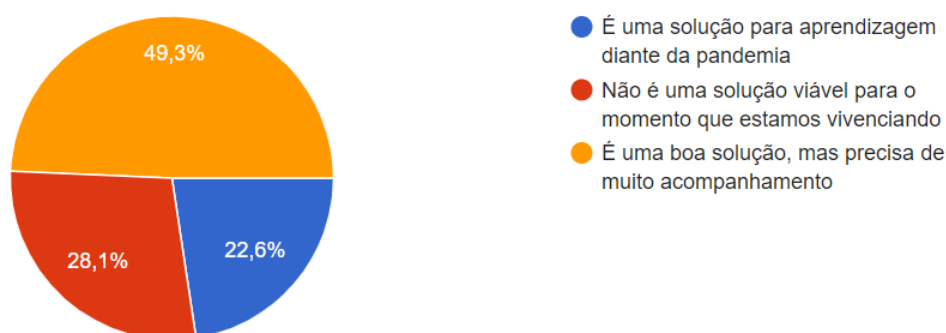
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I understand digital literacy as the set of skills necessary for an individual to understand and use information critically and strategically, in multiple formats, coming from various sources and presented through the computer-internet, being able to achieve their goals, often shared socially and culturally (FREITAS, 2010, p. 339-340).

The aforementioned author reaffirms the understanding of digital literacy, corroborating the idea that there is not only one literacy, but several (SOARES, 2002). As students deal with different technologies, they need to have different skills to achieve their goals.

A third question related to remote learning, sought to know what the student thought about remote learning, as shown in Graph 3:

CHART 3 - What do you think about remote learning?



Source: Elaborated by the authors (2020).



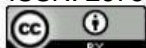
As the student was already participating in synchronous and asynchronous classes, the objective of the question was to know the opinion, in an objective way, of those who were participating in this new study modality, different from the one they were used to, which was face-to-face. 22.6% said it is a good solution for learning in the face of the pandemic; 28.1% said it is not a viable solution for the moment we are experiencing; 49.3%, the majority, said it is a good solution, but needs a lot of monitoring.

The result is in agreement with the answers of the previous question, which showed the difficulty of using the platform. When the majority stated that "it is a good solution, but needs a lot of follow-up", they emphasized the difficulty of using the equipment as a consequence of the lack of practice in using it. This shows the importance of digital literacy in remote teaching. When they say that "it needs a lot of monitoring," we can infer that their perceptions of technology related to the teaching and learning processes are restricted and for specific contexts, such as those they experience daily in their social relationships, and not for use in their school activities. Having an accompaniment to perform the activities in the virtual learning environment presupposes a lack of knowledge of the use of certain tools, such as those used to do the assignments, watch the videos, edit materials, insert activities in the specific fields, etc.

The survey also wanted to know the student's opinion about the remote classes, what they identified as an ease or difficulty. The following question was asked: "What is your opinion about the remote classes? Among the comments, we highlight three responses that show a lack of ability to use the platform and, more specifically, digital literacy. We will identify the students as E1, E2 and E3.

As we have already stated in Graph 2, students have difficulty using the Sigeduc platform, as we can see in E1's opinion:

It took a long time for me to know that I was having classes and even when I knew I didn't understand very well how to use sigeduc, I didn't know how to deliver the activities, I don't know where to watch the classes (not even the recorded ones). In my opinion it would be easier to create a group in whatsapp and send activities/links to class in this group (for each class) and forget that sigeduc exists.





According to the opinion of E1, who stated that he does not understand "very well how to use sigeduc," there is difficulty in using the study platform used by the education system. In addition, he finds it "easier to create a whatsapp group" to send the activities. The creation of this group in the Whatsapp application is justified by the fact that he is familiar with this way of interacting. Thus, by creating the group, it is easier to perform the activities proposed by the teacher. This shows, once again, that digital literacy occurs in specific contexts.

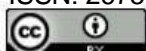
Another opinion that is in line with what has already been discussed in this article is that of E2. His opinion is similar to E1's, changing only the place where the activities should be posted:

It is evident, therefore, that there are difficulties for some students to fully integrate into the online teaching platform. However, the teacher could create a channel on YouTube and post lessons and activities where the student could access the link that would be posted by the teacher in the giseduc or in the whatsapp group, acting in sync. This way we hope to promote a change in distance education.

The opinion of E2 brings as a place to post the activities the Youtube channel. For him, "the teacher could create a channel on Youtube" and then disseminate the link so that everyone could access it. For containing many videos and contents and for having a high amount of accesses, E2 believes that Youtube is the best place to do the activities. He also mentions WhatsApp, where the teacher would disclose the link for access. We understand, from E2's speech, that this application would serve to post the link where the activity would be, in fact, and would also serve as a form of interaction between teacher and student.

The third opinion, that of E3, shows the difficulty not exactly related to digital literacy, but to the way the activities are sent to students:

I don't think it helps much. In the class groups all I see is complaints. Nobody understands exactly anything! We students don't learn everything we should with face-to-face classes, and with online classes it's even harder. I think the way we send the activities to the professors is complicated, the sigeduc is very boring. I think that you teachers could leave the activities in the system and we could copy them in our notebooks, and when the classes come back you could correct everything. It is more practical and we students are used to this way..





E3's opinion brings a new element: "sigeduc is very boring". We can understand that the student already has practice with the use of the study platform. He does not mention difficulty, although he says that "with online classes it is more difficult". The teachers alternate in the activities, so that every day one of them inserts an activity in the system. E3 also proposes that teachers leave the activities in the system so that students can copy them in their notebooks, and concludes by saying that students are used to this way.

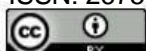
We can infer that the problem here is not the lack of ability to use the virtual environment or to insert activities, but, rather, being used to interacting with knowledge in a conventional way, such as copying in the notebook. For E3, digital technologies do not help, do not facilitate learning in fact. The traditional way, the notebook, is much more practical. We can also understand that this rejection to the use of digital technologies is due to the absence of practices determined for school purposes, which leads students to not want to use them.

In view of the results obtained in the survey, we found diverse opinions about remote classes. Each one has a different perspective, highlighting the lack of literacy practices in the use of the platform used for studies by the state education network and highlighting the interaction with applications with which students are more familiar.

4 Final considerations

The use of digital technologies in this time of pandemic has been essential to ensure that students are not left unattended when it comes to learning. Since the beginning of the year 2020, school institutions have been dedicated to improving communication with students and enhancing their teaching platforms in order to facilitate the distribution of curricular content for each subject.

The state education system in Rio Grande do Norte, for example, has been improving the Sigeduc platform so that teachers can teach remote classes. However, this has generated dissatisfaction due to the fact that not everyone has access to the internet





or has equipment to access it. Added to this is the lack of digital literacy of many students, who find it difficult to insert activities, edit a text or do the online assignments proposed by the teachers of the courses, according to written statements.

The answers also show that digital literacy takes place in specific contexts, since they have practice in accessing the Internet, with digital equipment, with applications, but still have some resistance in using a platform with which they are not familiar.

Therefore, it is necessary that the school institution promotes activities, such as an introduction to the learning platform, in order to guide students in the use of Sigeduc and the tabs for inserting activities that are in the virtual environment. This action could facilitate and help those students who are not yet familiar with the appropriate digital literacy to participate in remote classes.

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Editora responsável: Cristine Brandenburg

Especialista *ad hoc*: Jucieude de Lucena Evangelista

Como citar este artigo (ABNT):

OLIVEIRA, Marcos Antonio de; PONTES, Verônica Maria de Araújo. O letramento digital e o ensino remoto: a percepção dos estudantes sobre a aprendizagem. **Rev. Pemo**, Fortaleza, v. 4, e47212, 2022. Disponível em: <https://doi.org/10.47149/pemo.v4.7212>

Received October 14, 2021.
Accepted on January 9, 2022.
Published on January 10, 2022.

