Revista ARACÊ
ISSN: 2358-2472

ANALYSIS OF THE DIGITAL COMPETENCIES OF ELEMENTARY SCHOOL TEACHERS: A QUALITATIVE RESEARCH BASED ON DigCompEdu

https://doi.org/10.56238/arev6n4-126

Submitted on: 11/10/2024 **Publication date:** 12/10/2024

Marcileni dos Santos Claudino[1], Naiara Amália Van Silva[2], Liane Broilo Bartelle[3], Adriana Andrade Bahiense[4] and Daiane de Medeiros Domindos da Rosa[5].

ABSTRACT

The objectives of this work are to investigate the technological profile of basic education teachers and to identify the level of digital competence of these teachers, based on DigCompEdu, to carry out pedagogical activities. To achieve the proposed objectives, a research was carried out through an in-depth interview with a group of teachers from the city of Torres, RS. This article is an applied, descriptive and qualitative research. We observed that the levels of digital competence of the teachers vary from explorer to specialist and that these participants have possibilities of greater progression in these levels, since they seek to carry out training in this sense and are always improving themselves to improve the teaching and learning process in the digital age.

Keywords: Digital skills, Digital technologies, DigCompEdu.

[1] Doctorate student in Education at the Lutheran University of Brazil (ULBRA)
E-mail: marccysts@gmail.com
[2] Doctorate student in Information Science at the Federal University of Santa Catarina (UFSC)
Email: amalianaiara@gmail.com
[3] Master's student in Education and New Technologies at Centro Universitário Internacional
Email: lianemkt@gmail.com
[4] Master in Theology at Faculdades EST
E-mail: adriana.a.bahiense@gmail.com
[5] Specialist in Interdisciplinarity in Early Childhood Education and Early Years
Email: domingosdai@hotmail.com

Revista ARACÊ
ISSN: 2358-2472

INTRODUCTION

The contemporary era demands from human beings new skills to interact and live in the world. Among them is the competence arising from the technological revolution that has occurred in recent decades: digital competence. According to the MIL documents (WILSON et. Al, 2011) and DigCompEdu (LUCAS; MOREIRA, 2018) digital competence is the union of knowledge, skills and attitudes inherent to the subject who makes critical and creative use of technology, emphasizing the levels of digital competence of teachers and the implications of classifying these levels for education.

The term digital competence appeared in 2006 in the European Parliament and the European Commission's recommendation document on culture and education, treated as one of the eight essential competences for lifelong learning. Since then, some studies, *frameworks* and concepts have been built to define the term and develop such skills in people's lives.

In education, the development of teachers' digital skills stands out, especially in basic education, as they live with students from the digital age and are responsible for a good part of their training. The main reference study for determining the digital skills of teachers is the European document DigCompEdu, which provides a table that starts with the general digital skills that an educator should have and evolves to the specific skills inherent to the function they perform.

> (...) As teaching professionals, they need, in addition to general digital skills for life and work, educator-specific digital skills to be effectively able to use digital technologies for teaching. (LUKE; MOREIRA, 2018)

From such documents and studies, much has been discussed about a more digital education and teachers who are more prepared for this environment. From the above, the research questions arose: What is the technological profile of basic education teachers and how is the level of digital competence of these teachers based on DigCompEdu to carry out pedagogical activities? To answer the problems of the research, this article presents a research carried out through in-depth interviews carried out with a group of teachers from the city of Torres, RS. The interviews took place individually through *the Google Meet* application, according to a semi-structured question script with open questions about the competencies established by DigCompEdu and based on the principles and concepts of Taylor and Bogdan.

Revista ARACÊ
ISSN: 2358-2472

Thus, the objectives of this article were defined: to investigate the technological profile of basic education teachers and to identify the level of digital competence of these teachers based on DigCompEdu to carry out pedagogical activities. Through the data obtained, this work was structured as follows: the exposition of the theme, research questions and objectives in the introduction; Next, the theoretical framework on digital skills, digital technologies and pedagogical practices is presented; the methodological aspects of the research complete the first part of the work; The results and discussion with the theoretical reflection on the statements of the interviewed teachers and the final considerations bringing the outcome of the research close the present research.

UNDERSTANDING DIGITAL SKILLS

In 2006, the European Parliament and Council published a recommendation on key competences for lifelong learning, one of the main objectives of which was to identify and define the key competences needed for personal fulfilment, active citizenship, social cohesion and employability in the knowledge society (EUROPEAN COMMISSION, 2006). Thus, in its frame of reference, the term digital competence emerges as one of the main ones to be developed by the subjects.

According to the European document:

> Digital competence involves the safe and critical use of information society technologies (IST) at work, leisure and communication. It is underpinned by ICT skills: the use of the computer to obtain, evaluate, store, produce, present and exchange information and to communicate and participate in cooperation networks via the Internet. (EUROPEAN COMMISSION, 2006)

From this document, the term digital competence became popular and widely explored in all areas of knowledge and by various political and pedagogical entities. The most important documents that deal with this topic are European, highlighting in this work the European Digital Competence Framework for Citizens (DigComp) and, mainly, the European Digital Competence Framework for Educators (DigCompEdu). DigComp was developed by the Joint Research Centre (JRC) which develops studies and research on learning and skills for the digital age; This document presents a tool to identify and improve the digital competence of the citizen as a whole. (LUKE; MOREIRA, 2017)

In addition to DigComp, the JRC has developed some frameworks aimed at leveling and improving digital skills for educators (DigCompEdu), for educational organizations (DigCompOrg), for consumers (DigCompConsumers), for higher education institutions

Revista ARACÊ
ISSN: 2358-2472

(OpenEdu) among others (LUCAS; MOREIRA, 2017). As already mentioned, in this work the DigCompEdu document will be emphasized.

Figure 1 – The DigCompEdu board

Source: LUCAS; MOREIRA, 2018

DigCompEdu presents the above framework for the development of teachers' digital skills in Europe (LUCAS; MOREIRA, 2018). The framework is divided into six areas containing twenty-two specific competencies for educators: professional engagement, digital resources, teaching and learning, assessment, learner empowerment, promotion of learners' digital competence.

In addition, the framework also provides a progression model for educators to understand what level of competence they are at and what they need to do to climb the most advanced levels.

DIGITAL SKILLS TEACHERS FROM DIGCOMPEDU

The DigCompEdu framework is designed to enable educators to understand the specific digital competencies needed to do innovative and improved work. Loureiro, Meirinho and Osório (2020) point out that it is of paramount importance for educators to be prepared to act actively in the digital age, using the skills inherent to all citizens to do so. The authors also complement by citing Europe as a continent that recognizes and encourages this need, with the creation of DigCompEdu emerging as a reference in education and in the development of digital skills in that continent and in other continents as well.

DigCompEdu has a broader scope, conceiving educators' digital competencies as a combination of knowledge, skills, and attitudes. In addition, it explicitly includes

Revista ARACÊ
ISSN: 2358-2472

considerations about educators' professional work environment and multiple interactions with students, colleagues, and *stakeholders*. (MATTAR et al., 2020)

In this sense, DigCompEdu is aimed at all educators, from early childhood education to higher education and adult education. In addition to the six specific areas and the twenty-two specific competencies, the framework also presents a progression model for educators to assess and progress in their digital competence. To this end, the document presents six different levels in a growing evolution, according to individual development: Newcomer (A1), Explorer (A2), Integrator (B1), Specialist (B2), Leader (C1) and Pioneer (C2). (LUKE; MOREIRA, 2018)

The levels are determined according to the competencies presented by the educators at the time of the analysis, considering that by understanding the specific competencies and deepening through training, teachers are promoted to more advanced levels. Thus, it is considered that the educator of levels A1 and A2 is able to acquire new knowledge, since they have will and curiosity, but still have very basic skills regarding the use of digital resources in the teaching and learning process and for their personal development; the B1 and B2 level educator, on the other hand, is able to use pedagogical resources with a certain proficiency, expanding their field of application and, sometimes, makes significant reflections about their digital skills; The teacher who is at the highest levels has the ability to be critical and renewed, since in addition to presenting very advanced digital skills, they are able to share with their peers, elaborate critiques on existing processes and create new practices based on digital technologies. (LUKE; MOREIRA, 2018)

It should be made explicit that progressions in the levels happen cumulatively, so as the educator reaches a higher level descriptor, it means that he already has the descriptors of a lower level than that. In the same way that teachers can progress in the levels in each competence listed by the European framework and presented in figure 1.

METHODOLOGY

This work is a research applied as it presents its data originated from interviews made to a group of basic education teachers. According to Gil (2010, p. 26), applied research aims to develop knowledge from the application in a specific situation.

In addition, this research is characterized as descriptive and qualitative, since it seeks to understand the phenomena from data obtained through individual interviews. In

Revista ARACÊ
ISSN: 2358-2472

this sense, Taylor, Bogdan and Vault (2016, p. 97) state that qualitative methodology refers, in the broadest sense, to research that produces descriptive data – people's own written or spoken words and observable behavior.

To obtain the data, we opted for an in-depth interview based on a semi-structured script with open questions distributed in thematic axes to a group of teachers from the municipal network of the city of Torres/RS. For Taylor, Bogdan and Vault (2016, p. 97) through in-depth qualitative research we mean the encounters between interviewer and interviewee, the latter being directed to inform about their life, their experiences or situations expressed in their own words.

The subjects of the research are six basic education teachers from the municipal school system of the city of Torres/RS. The age of the interviewees varies from 48 to 57 years old, with three teachers having a degree in Pedagogy and working with the initial years and three are trained in different areas and working with the final years of elementary school. The participants of the research were invited to participate in the study related to digital skills and the use of digital resources in basic education, through approximation between researchers and the intended target audience and by express authorization of the municipal education department of that municipality. It should be noted that we present the objectives of the research, the primacy of anonymity, and we requested the signing of the free and informed consent form (ICF). Chart 1 presents the profile of the professionals participating in the research, listed in the order in which they were interviewed:

Revista ARACÊ
ISSN: 2358-2472

Chart 1 – profile of the participants

Participante	Idade	Graduação	Especialização	Tempo de Docência	Disciplina que leciona	Área de atuação
P1	54	Pedagogia	• Educação Infantil • Interdisciplinaridade	35 anos	Todas da base comum	Anos iniciais
P2	57	História	• Supervisão e orientação	15 Anos	História, ensino religioso	Anos finais
P3	53	Pedagogia	• Metodologia Interdisciplinar de Ensino	33 Anos	Todas da base comum	Anos iniciais
P4	55	Pedagogia	• Psicopedagogia Institucional	30 Anos	Todas da base comum	Anos iniciais
P5	48	Matemática	• Metodologia Interdisciplinar de Ensino	30 Anos	Matemática	Anos finais
P6	54	Ciências Biológicas	• Microbiologia • Tecnologia aplicada à educação	35 Anos	Ciências e Matemática	Anos finais

Source: Developed by the authors

For the development of the research, we applied an open interview conducted by *Google Meet* , presenting the profile of the participants and following thematic axes developed from the six competencies of the European document DigCompEdu. The first axis refers to the professional competencies of educators: professional involvement, this competence is expressed by the teacher's ability to use digital technologies in their pedagogical practice and in interactions with the actors involved in the educational process of the institution in which they work.

The second axis is aimed at the pedagogical skills of educators: digital resources that include selection, creation and modification, management, protection and sharing; teaching and learning that highlights mentoring, collaborative learning and self-regulated learning; evaluation, training of learners; evaluation that integrates evaluation strategies,

Revista ARACÊ
ISSN: 2358-2472

evidence analysis, feedback and planning; the empowerment of learners that involves accessibility, differentiation and personalization and active involvement.

The third axis relates to learners' competences: promotion of learners' digital competence, involving information and media literacy, digital communication and collaboration, digital content creation, responsible use and digital problem solving. The competencies mentioned above are presented in figure 1, which focuses on presenting the DigCompEdu table.

RESULTS AND DISCUSSION

In this section, we present the results of the interviews and discussion about the concepts addressed. For Taylor, Bogdan and Vault (2016, p.115), in the qualitative interview, the researcher tries to build a situation that resembles those in which people naturally talk to each other about important things. Thus, in this work, we seek to give voice to basic education teachers on topics as important to education as the use of digital resources in pedagogical practice and digital skills.

In view of this, after the initial contact with the educational institution of which the participants are part, we sent an invitation to the teachers to participate in the research. We present the results of six returns in a timely manner for the application of the research, of these six participants all are female, all have completed graduation and specialization, half teach in the initial years and the other half in the final years, the average teaching time is 29.6 years and the average age is 53.5 years.

As we can see, the survey participants are long-time teachers who were born and started their careers in the analog era, and currently have to face the challenges of teaching students in the digital age. We observed this finding in the following statements: "I'm not from the cell phone generation, I'm not from this technological generation, so every new thing is a discovery for me (P3)"; "I perceive myself as a person who took a long time to understand this technological change (P1)"; "For a long time it has been heard that we needed technology to arrive, but not. It only worked when we were forced to do it (P6)".

Teachers are role models in the classroom and, as citizens, they need to master digital skills to live, work, coexist and interact in the digital world, these skills are duly explored in the European Digital Competence Framework for Citizens (DigComp). However, as an education professional, they also need to acquire the specific skills for the educator, described in DigCompEdu. (LUKE; MOREIRA, 2018, p. 15)

Revista ARACÊ
ISSN: 2358-2472

For the design of this research, we divided the topics of the interviews into three axes related to the competencies arising from DigCompEdu, as already explained in the methodology. In this way, we will explore each axis with the data observed in the interviews.

PROFESSIONAL SKILLS OF EDUCATORS

The professional competencies pertinent to educators highlighted in the DigCompEdu framework refer mainly to their involvement in the organizational sphere and in professional and personal development, they are: institutional communication, professional collaboration, reflective practice and digital continuous professional development (CPD).

For the purposes of this research, we consider institutional communication through digital technologies, since communication is one of the most important factors for the functioning and development of an institution. For Vidal (2013), it is through communication that the subjects participating in an institution receive information about performance expectations, evaluation criteria, tasks and obligations; acting as a mediator between people, generating understanding, motivation and cooperation.

The participants of the research evaluated institutional communication through digital means in positive and negative aspects. They are positive as facilitators of interaction and speed in communication, both between institution and teachers, as well as between teachers and students. In this sense, they highlight that digital resources have brought the subjects involved in the institutional process closer together. On the other hand, this quick and facilitated interaction brought to the teacher an overload of information and an invasion of the individuality and intimacy of this professional. We found such evidence in the teachers' statements:

> "So there was better, faster, more efficient communication, yes. But behind this faster, more efficient communication, barriers were broken. It is not so. At the limit of the human being at certain times I felt invaded, pressured because I had to give a very quick return too. So that invaded my house." (P1)
> "Communications, at the same time that they were facilitated, they had obstacles in the way of using digital resources in the pandemic, often not even the staff of the education department knew how to do it. We also felt a sense of invasion in our individuality, it seems that our life was exposed. But with colleagues it was different, because we were more united." (P2)

The second competence of this section is professional collaboration; whose objectives are to use digital technologies to collaborate with other educators, share and exchange knowledge and experience, as well as to innovate in pedagogical practices

Revista ARACÊ
ISSN: 2358-2472

(LUCAS; MOREIRA, 2018, p. 19). Regarding this competence, the participating teachers highlighted the great sense of collaboration existing in the institution they teach, highlighted that this sense had been there for a long time and that it intensified in the pandemic period due to the difficulties encountered by many in offering remote teaching: "when technology is used in cooperation, it is more integrated, Because before you had to meet a colleague at your activity time or only when you were in person." (P1); "We became more connected and helped each other, many questions we had, colleagues answered or helped each other to find a solution. Our school is very united in this sense." (P2); "So we were helping each other from all sides" (P3); "A lot of collaboration, partnership, even with the school board, with the entire team and teachers in general." (P4); "I think the collaboration was good, it was very good" (P5); "Here at school we have always helped each other. So that's very good." (P6). Throughout the interviews, we can see that the institution's teachers work in partnership, both in the more technical assistance of technological resources, as well as in the pedagogical practices that are created, shared and experienced.

The third and fourth competences in the professional aspect of teachers refer to reflective practice and CPD, both have a mutual relationship, in the sense that one completes the other. By reflecting on their practice and that of the school community as a whole, the teacher with this well-defined competence will seek to develop in training on a continuous basis, either to improve their practice or to improve their digital skills. According to Carabetta Júnior (2010), reflexivity provides and values the personal construction of knowledge, enabling new ways of apprehending, understanding, acting and solving problems, allowing one to acquire greater awareness and control over what one does.

Regarding these competencies, our interviewees consider that they carry out reflective practice both individually and collectively, showing that from this practice they have sought to expand their knowledge through training to follow the process of change that has occurred in education in recent years. Some with more emphasis, others took a while to accept these transformations, but all of them have a greater or lesser degree of involvement with the competencies presented here.

> "I perceive myself as a person who took a long time to understand this technological change. I have always been a person who has always gone after it, I participated in courses that were offered by both the school and the sponsor. I always did and always created on top of that. But I confess to you that it took me a long time to wake up digital." (P1)
> "I improve myself when I have the opportunity, but often the courses are inaccessible. Like when they implemented *Google Classroom* in our municipality,

Revista ARACÊ
ISSN: 2358-2472

> they offered a course that most teachers could not follow. The teacher knew a lot and couldn't transmit his knowledge, which was very technical." (P2)
> "So today I went to look for it, at the time that Ulbra and the city hall made a partnership and offered teachers a postgraduate degree in technologies applied to education. And then I did it because I thought I needed to, because I wanted my classes to be more interesting, I wanted the students to enjoy being there. Of course, the first times I applied some different technology, we were at a distance, the students had a lot of difficulty." (P6)

Thus, we clearly observe the competencies presented in this first axis that are part of area 1 of the DigCompEdu framework. Through the teachers' speech, it is possible to perceive that they are all in search of progression in the levels of the competencies presented.

PEDAGOGICAL COMPETENCIES OF EDUCATORS

The second guiding axis of this research points out the pedagogical competencies of educators necessary to promote efficient, inclusive and innovative teaching and learning strategies (LUCAS; MOREIRA, 2018, p. 16). It can be inferred from this axis the competencies of: digital resources, teaching and learning, evaluation and training of learners.

As for digital resources, we noticed that the research participants already have a good degree of involvement with regard to the selection and modification of digital resources available on the Internet: "In class I can hardly teach anymore without technological support." (P1); "I use and already used videos, documentaries, research sites." (P2); "I was telling them that when I enter my profile as a teacher I know the evolution of each one. They were very admired and this is an exchange, they are moments of exchange. I mean, I felt even more evolved, you know." (P3); "Today I use some videos, but then at the end I question, I interrupt ... My contribution is very important, our vision as a teacher." (P4); "The research is not limited. It gives you such a great vision, of a parallel, of a subject, of a correspondence even outside the country. You can associate the information and I think that's fantastic." (P5); "I have been using technology in the classroom very often, there was even a time when I stopped because of the internet that was very bad. (...) I've been working a lot of *online games* with them because I think it helps a lot and stimulates." (P6).

However, we observed that most teachers do not feel prepared to create materials, games, videos using digital technologies; Only one of the interviewees has carried out this practice, we also highlight that this teacher was frequently cited by the others as the

Revista ARACÊ
ISSN: 2358-2472

colleague who has provided the most help in the technological aspects to the other teachers of the school. Some lines regarding the creation of digital resources: "No, no. I'm still at the beginning of this whole thing. Except for apps in the area of history that I sometimes use with students and I can create some things with them." P2); "When in doubt between doing or doing badly, I preferred to follow the path that I was safer, so I try to make the selections of what I think is important. But I didn't create any kind of resource, slide I created, but video and other resources didn't." (P4); "No, I haven't made it yet. I only apply what is ready, I am in literacy. Because I consider myself to be literate. I'm in this part that has the help of my colleagues." (P5) "We have already produced texts, we made an infographic through Canva. (P6)

With regard to teaching and learning, the teachers spoke about their teaching practices, describing the way they guide their students both in the learning of formal content and in learning for life, such as the conscious use of technologies and for the purpose of acquiring knowledge. At the same time that the participants report a practice in the sense of giving more autonomy to the learners, they also support the importance of the teacher's mediation and constant monitoring during the teaching and learning process. Thus, the teachers present such concepts in their statements: "we do work to teach how to use technologies and to acquire knowledge. Because what we see is that they know a lot about using devices for social networks and games, but when it comes to using them to do a school project they don't know." (P2); "It's not that you can't use technology as entertainment anymore. But, you can also use it as a knowledge tool. I think our mediation would come in, our function continues, only now in slightly different roles." (P3); "I always tell them: you need to understand that the technology here is for schooling, we are going to work for learning, you are going to leave it later for leisure..." (P5); "If it were only technology, the teacher would not need to teach. Now we understand that we have to have both together, both are important. So we will be a mediator in the classroom." (P6)

From the above, we bring the concept of Silva (2007): "the teacher, in the exercise of the art of relationship with the learner, is by nature a mediator: mediator between knowledge and the learner, architect of bridges between knowledge and people." Corroborating what the teachers said in the interviews, understanding the importance of a more technological education, however, reinforcing the true role of the teacher: mediator of knowledge.

Revista ARACÊ
ISSN: 2358-2472

The fourth competence of this axis comprises one of the most important aspects of education: evaluation. Thus, when addressing this competence, the DigCompEdu framework considers that when integrating digital technologies into the evaluation, we must consider aspects to improve in existing strategies. In addition, the table also discusses the advantages that the data generated from these assessments can bring to understand the learning behavior of learners. (LUKE; MOREIRA, 2018, p. 21)

For Perrenoud (1999), the evaluation process must consider the individualizations of learning and Hoffman (2001) understands that the evaluation of learning is subordinate to pedagogical action. In this sense, it is not so much the type of instrument to be used that matters, but rather the purpose of the teaching and learning process. Thus, from the statements of the teachers participating in the research, it is possible to perceive that they consider the evaluation process as a process and according to the individualities of the learners, however, when relating the evaluation to the technological methodologies used, it is observed that there is little adherence and when they adhere it is in the use of resources to instrumentalize the evaluation activities.

We present some of the answers about the use of digital resources in the evaluation process: "Very little, only in works that I do for them to produce and present or deliver and evaluating by the way the works are being produced." (P2); "Digitally with my little ones I don't usually understand, don't you understand? Because we get more attached to writing. Except when they had to produce, at home, the reading of what they wrote in little videos. In this sense, they had to produce a form of evaluation." (P3); "I used the one that already generates its own response during the pandemic. P6 helped me a lot in the production of forms, we used this form because it was very difficult to read in our WhatsApp messages. Wow!! It was terrible, we couldn't do it." (P5)

> "Look how our students don't have much access to the internet. So I didn't use this resource anymore. Because they go home and have no way to access the internet to find their way, when it's in the classroom, sometimes I work." (P4)

Thus, of all the competencies addressed during the research, we highlight that the use of digital resources in the evaluation processes needs to be discussed and implemented more effectively in the teaching and learning processes.

The last competence of this axis is the empowerment of learners, according to DigCompEdu one of the strengths of digital technologies in education is their potential to support learner-centered pedagogical strategies and boost the active involvement of

Revista ARACÊ
ISSN: 2358-2472

learners in the learning process and its appropriation (LUCAS; MOREIRA, 2018, p. 22). According to the teachers interviewed, there are many possibilities for progression of learners' digital skills, such as ensuring access to technological resources, their inclusion in the digital world in a full way, and possibilities of producing knowledge through active methodologies. As we can see in the statement of P6: "So, the flipped class is very interesting, because the student first knows the content and then he clears the doubts and asks questions in the classroom or puts what he understood. And then we will have a much more communicative room."

However, there are obstacles that are difficult to overcome, such as the lack of access to digital resources, the low structure of families, the functionality of school spaces, the lack of interest, among others, which were even more emphasized in the period of the COVID-19 pandemic. We highlight some colloquia about these obstacles: "It is certainly happening and has many flaws. Then we could list a lot of things from lack of access to lack of interest. Sometimes I wonder if the lack of access is no longer the lack of interest." (P3)

> "But one thing we noticed is that a lot of students came back who didn't even know how to press the button. We put chrome in front of them and it said yes: where do you care? I didn't know. So, we started talking and thinking 'how was he doing the activities at home'." (P5)
> "But we know that not all students have access to the internet or have a device that supports a platform. We have this whole social issue that also stopped us at certain times, because there was no way to act with the child, because he did not have access or did not have a good cell phone that could hold the photos, for example. To send the photograph, to receive the returns. There was no internet, no access to the internet, I looked at school in print, difficult to return. Even because we were in a pandemic, so they also had this fear." (P4)
> "We try, we do work to teach how to use technologies, to acquire knowledge. Because what we see is that they know a lot about social networks and games, but when it comes to using it to do a school project they don't know. There is also the issue that many are in need of survival, so at home they do not have access to the internet or technological resources." (P2)
> "I have some students in class that if I send the activity on *whats* to the class and I don't give it printed to this student, he doesn't do it. Because the family only has that cell phone, they don't understand and they never provide it to the child." (P1)

As we can see, this second axis comprises the most important part of the DigCompEdu framework, it is what will guide the teacher regarding his practice and pedagogical reflection.

PROMOTING LEARNERS' DIGITAL COMPETENCE

Digital competence is one of the transversal skills to be developed in students throughout their training path. In this way, the digital skills inherent to learners are already

Revista ARACÊ
ISSN: 2358-2472

delimited in DigComp, however DigCompEdu has adapted to contemplate pedagogical purposes. (LUKE; MOREIRA, 2018, p. 23)

By understanding that the promotion of competencies is one of the competencies necessary for the educator, we bring important propositions in the voices of the teachers presented here. At the same time that we have learners who were born in the digital age and are supposed to dominate this sphere, we are faced with superficial knowledge that guarantees them to interact on social networks and online games. So, the teacher in the role of mediator, as we have mentioned before, has the important function of immersing learners in technological processes in a conscious, inclusive, problematizing and creative way. The research participants explored the aspects mentioned here throughout their narratives, when they told the dynamics of one activity, the adaptation of another for a given learner and the form of interaction by technological means: "I think offering this in the classroom and showing them the research sites. Trying to guide and of course we are not *experts* in technology, but we had a lot of training from Positivo." (P4). Others added:

> "Because we think that everyone today, the child, is born knowing. Then it depends on the child who has access. There is a reading moment on Friday and everyone receives their Chrome, enters the login and password, enters the Elefante Letrado platform and goes to read your book. I received a boy a week ago and he didn't know basic things, like calling and logging in. Then I saw that the child I was receiving had no contact at all." (P1)
> "In the ninth grade we have a boy who is autistic. And what have I done? These days I provided the same game that I did with the other students for him. Then I saw that his mother shared 'think of a happy boy'. The subject he likes the most: science with what he likes to do the most: play." (P6)

Promoting learner competence is one of the main challenges for educators in the classroom, because at the same time that teachers need to develop their own digital competence, they need to be prepared to collaborate in the development of others: students.

TEACHERS' RELATIONSHIP WITH DIGITAL RESOURCES AND THE DEVELOPMENT OF THE LEVEL OF DIGITAL COMPETENCE

Digital resources have permeated the educational environment for a short time and have already brought significant changes in the way we learn and how we teach. The teacher has the important role of migrating to this new reality and understanding himself as an active subject of this process. To do so, it is necessary to reflect on your relationship with technology and how you are developing your digital competence. In this sense, when we

Revista ARACÊ
ISSN: 2358-2472

asked about their relationship with technologies, the interviewees were unanimous in answering that it is a relationship that started out very fearful, with a lot of difficulties in understanding and also resistance. But, as they sought more knowledge and, especially, with the arrival of the pandemic, this relationship turned into a desire to learn and to really change pedagogical practices.

Modelski, Giraffa and Casartelli (2019) reflect on digital skills and methodological issues:

> It is perceived that the development of competence is a complex and continuous process and, therefore, it is necessary to reflect our own way of learning and building knowledge so that, in fact, didactic change happens. It has really changed the technological context; however, the methodological issues remain an open challenge with regard to DTs, and, naturally, this is reflected in the training processes of teachers. (MODELSKI; GIRAFFA; CASARTELLI, 2019)

In our research, we found some statements that show the participants' formative path regarding the relationship with digital technologies. Like participant 4 who talks about her initial negative feeling for her delay in accepting the changes that occurred to the detriment of technology:

> "So I felt like that... My competence has been called into question, do you understand? Because I've always been so respected, I've built such a cool career and because I don't master certain things I'm feeling so outdated, as if I were a disposable person. That's what I felt." (P4)

However, throughout the interview, she presented her trajectory and how she had changed her perspectives: "Today, looking back, it was positive. So, in this sense it was positive, why? Because I had to change the forceps. Maybe slowly I wouldn't get to that level. I'm at a very low level, but already doing some things independently." (P4)

We also introduced participant 3 who uses the word learning as a definition of this process, because for her it was a learning experience and continues to be, due to the fact that she belongs to another generation: "I will say that it is a learning experience, the word that comes to mind. Learning and challenge, because I'm 53 years old and I'm not from the cell phone generation. I'm not from that technological generation, so every new thing is a discovery for me too." (P3)

And we can also highlight participant 6, who initially did not have a good relationship with digital technologies and with time, dedication and training managed to expand this

Revista ARACÊ
ISSN: 2358-2472

relationship, being mentioned several times by colleagues as someone who masters digital resources and shares her knowledge with others.

Finally, we asked the teachers presented here how they would define their level of digital competence and the answers ranged from low to very good, we presented some answers from our participants: "Very little, still a low level, I'm pushing myself, I've been doing the training and such, but I still have a lot to learn." (P2); I define myself as a hardworking teacher doing everything not to be left behind. I'm also not one of those who stops in time. I can't be like that, because I'm active, I have to adapt. I'm going to try to do my best." (P3); "I think I still have a lot to learn, you know, digitally. Especially in these issues of using the tool to make a digital class, for example, which we know that this will be the way (...)." (P4); "It's initial, but with a huge thirst for acquisition, next year I want to take a course even if I don't go back to the classroom, but I want to learn." (P5); "Look, very good, but I went to get it (...) Today I can help my colleagues." (P6)

By limiting this research to the assumptions of the European document DigCompEdu, we understand that there are six levels of progression regarding digital skills. We can infer from the interviews presented here that each participant is included in one of the levels of the DigCompEdu table; Throughout the work, we identified teachers at the explorer level, since they are exploring technological resources in the classroom and using some basic concepts in their pedagogical practices; teachers at the integrative level, as we observe that their practices aim to integrate, adapt and implement technological resources and a teacher at the specialist level moving towards the leadership level, since we observe that in addition to integrating digital technologies into her pedagogical work, she is also able to create, innovate and share knowledge and methodologies.

FINAL CONSIDERATIONS

The new perspectives in education due to the digital age have provided a revolution in the educational system, causing several reflections that did not exist before. In the last year there has been progress, mostly forced by the situation of the COVID-19 pandemic, so classes started to be held by digital means, in the return of face-to-face classes, in a hybrid way and now in person.

This article presented a reflective analysis of six interviews conducted based on the specific competencies of educators pointed out by the European document DigCompEdu.

Revista ARACÊ
ISSN: 2358-2472

In this way, we can verify with the reality of the teachers the most important points of DigCompEdu.

From the analyses presented, we infer that the use of digital resources in pedagogical practice is still deficient and needs to be better implemented in the school reality. However, we also found that the pandemic caused a transformation in the way these resources were used.

And, to conclude, we observed that the levels of digital competence of the teachers vary from explorer to specialist and that these participants have possibilities of greater progression at these levels, since they seek to carry out training in this sense and have the factor of will. In addition, the fact that they are more experienced teachers and from the analog era, provided us with a cut on basic education teachers, because according to the 2007 teacher census, most Brazilian teachers would be over forty years old in 2023.

Revista ARACÊ
ISSN: 2358-2472

REFERENCES

1. Aquino, E. M. L., et al. (2020). Medidas de distanciamento social no controle da pandemia de COVID-19: Potenciais impactos e desafios no Brasil. Ciência & Saúde Coletiva, 25, 2423-2446. https://doi.org/10.1590/1413-81232020256.1.10502020 Accessed on July 20, 2021.

2. Brasil. (2020). Portaria Nº 343, de 17 de março de 2020. Dispõe sobre a substituição das aulas presenciais por aulas em meios digitais enquanto durar a situação de pandemia do Novo Coronavírus - COVID-19. Diário Oficial da União, 18/03/2020. Accessed on May 3, 2020.

3. Carabetta Júnior, V. (2010). Pensar e (re)significar: A importância da reflexão sobre a prática na profissão docente. Revista Brasileira de Educação Médica, 34(4), 580-586. https://doi.org/10.1590/S0100-55022010000400014 Accessed on November 13, 2021.

4. Carvalho, M. R. V. de. (2018). Perfil do professor da educação básica. Relatos de Pesquisa, (41), 68.

5. Castro, D. P., Rodrigues, N. D. S., & Ustra, S. R. V. (n.d.). Os reflexos do ensino remoto na docência em tempos de pandemia da Covid-19. Revista EDaPECI. Minas Gerais, Brasil. Available at: https://orcid.org/0000-0003-2311-9357

6. Gil, A. C. (2010). Como elaborar projetos de pesquisa (5th ed.). São Paulo: Atlas.

7. Hoffmann, J. (2001). Avaliar para promover. Porto Alegre: Editora Mediação.

8. Loureiro, A. C., Meirinhos, M., & Osório, A. J. (2020). Competência digital docente: Linhas de orientação dos referenciais. Texto Livre. Available at: https://periodicos.ufmg.br/index.php/textolivre/article/view/24401

9. Lucas, M., & Moreira, A. (2018). DigComp 2.1: Quadro europeu de competência digital para cidadãos: Com oito níveis de proficiência e exemplos de uso. Aveiro: UA Editora. Available at: https://ria.ua.pt/handle/10773/21079?mode=full

10. Lucas, M., & Moreira, A. (2018). DigCompEdu: Quadro europeu de competência digital para educadores. Aveiro: UA.

11. Mattar, J., et al. (2020). Apresentação crítica do European Digital Competence Framework (DigComp) e frameworks relacionados. Pesquisa, Sociedade e Desenvolvimento, 9(4), e172943062. https://doi.org/10.33448/rsd-v9i4.3062 Accessed on December 11, 2021.

12. Modelski, D., Giraffa, L. M. M., & Casartelli, A. O. (2019). Tecnologias digitais, formação docente e práticas pedagógicas. Educação e Pesquisa, 45. https://doi.org/10.1590/S1678-4634201945180201

Revista ARACÊ
ISSN: 2358-2472

13. Parlamento Europeu e Conselho. (2006). Recomendação do Parlamento Europeu e do Conselho de 18 de dezembro de 2006 sobre competências essenciais para a aprendizagem ao longo da vida. Jornal Oficial da União Europeia, L394/310. Available at: https://eur-lex.europa.eu/legal-content/PT/ALL/?uri=CELEX:32006H0962 Accessed on July 25, 2021.

14. Prensky, M. (2001). Nativos digitais, imigrantes digitais. On the Horizon, 9(5).

15. Perrenoud, P. (1999). Avaliação: Da excelência à regulação das aprendizagens. Entre duas lógicas. Porto Alegre: Artmed.

16. Perrenoud, P. (2001). Dez novas competências para uma nova profissão. Pátio. Revista Pedagógica, (17), 8-12.

17. Santana, C. L. S., & Sales, K. M. B. (2020). Aula em casa: Educação, tecnologias digitais e pandemia COVID-19. Educação, 10(1), 75-92. https://doi.org/10.17564/2316-3828.2020v10n1p75-92

18. Santo, E. E., & Trindade, S. D. (2020). Educação a distância e educação remota emergencial: Convergências e divergências. In D. P. Machado (Ed.), Educação em tempos de COVID-19: Reflexões e narrativas de pais e professores. Curitiba: Editora Dialética e Realidade.

19. Santos, C. de S. (2020). Educação escolar no contexto de pandemia: Algumas reflexões. Gestão & Tecnologia Faculdade Delta, 1(30), 44-47.

20. Santos, E. (2019). Pesquisa-formação na cibercultura. Teresina: EDUFPI.

21. Santos Junior, V. B. dos, & Monteiro, J. C. da S. (2020). Educação e COVID-19: As tecnologias digitais mediando a aprendizagem em tempos de pandemia. Revista Encantar, 2, 1-15.

22. Silva, I. M. (2007). O professor como mediador. Cadernos de Pedagogia Social, (1), 117-123. https://doi.org/10.34632/cpedagogiasocial.2007.1918

23. Taylor, S. J., Bogdan, R., & DeVault, M. L. (2016). Introduction to qualitative research methods: A guidebook and resource (4th ed.). Wiley.

24. Tomazinho, P. (2020, April 5). Ensino remoto emergencial: A oportunidade da escola criar, experimentar, inovar e se reinventar. Medium. Available at: https://medium.com/@paulotomazinho/ensino-remoto-emergencial-a-oportunidade-da-escola-criar-experimentar-inovar-e-se-reinventar-6667ba55dacc Accessed on May 28, 2020.

25. Vidal, D. M. M. (2013). A comunicação interna no fortalecimento da responsabilidade social das organizações. Comunicologia – Revista de Comunicação e Epistemologia, 6(1), 123-136. Accessed on June 3, 2016.