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Technological and self-regulation characteristics of students in the final years of Elementary School

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ABSTRACT

Digital technologies are present in the daily lives of students at all educational levels, which drives their integration into pedagogical practices in order to adapt teaching to this new context and to take advantage of their potential for educational purposes. For this process to be effective, it is important to understand how this audience interacts with technologies and their self-regulation processes, so that such information can support the development of these practices. This study aimed to investigate the technological and self-regulation characteristics of students in the final years of elementary school. This research, a case study with a quantitative approach, involved 80 students from the final years of elementary education at a municipal school located in the metropolitan region of Porto Alegre, RS, Brazil. Data were collected through a questionnaire, and the questions were analyzed based on the response scores. Regarding technological characteristics, it was found that most participants habitually stay connected to the internet, and a large portion consider their computer skills to be intermediate or basic. A considerable number use email and, especially, social networks, with WhatsApp and Facebook being the most mentioned. Concerning self-regulation characteristics, the item most frequently identified as true was the concern with being able to learn the content, while the least true indicated that most students do not consider it important to stand out compared to their classmates. The most variable item was related to the appropriate use of study time, indicating an awareness that this aspect needs improvement as a self-regulatory attitude.

KEYWORDS: Student Autonomy. Digital Technologies. Engagement. Basic Education.

1 INTRODUCTION

Currently, students attending the final years of elementary school are digital natives who, for the most part, have grown up surrounded by more digital resources than previous generations. In line with this perspective, Digital Technologies (DT) are increasingly being introduced into school settings, both to adapt teaching to this new context and to take advantage of their potential for pedagogical practices. Within this context, DT have been assuming an increasingly prominent role in society, revolutionizing the way people communicate, interact, and seek information (Guimarães *et al*., 2024).

The importance of DT as a resource for teaching and learning became more evident at the end of 2019, with the advent of the Covid-19 pandemic, which further accentuated and exposed inequalities in access to technologies and highlighted the importance of alternatives and possibilities that promote digital inclusion.

As a consequence of the presence of DT in young people's lives, it is necessary to develop pedagogical strategies that foster more engaging and contemporary lessons (Almeida; Costa; Lopes, 2017). However, more than merely incorporating them, it is essential to implement a well-planned mediation process using these resources, always with clear objectives, ensuring that their use does not become an end in itself.

In this line of thought, Soares, Angeluci, and Azevedo (2020) reflect that a key issue in this debate lies in how to develop innovative and stimulating experiences and in understanding the behavioral and communicational impacts they have on digital natives in the classroom.

Tezani (2017) discusses digital natives and pedagogical practices, emphasizing the need for new directions in teaching and learning mediated by technologies—a process that is still incipient in some educational institutions. Thus, the author stresses that this topic needs to be debated with a view to rethinking methodologies within this context.

The inclusion of DT in the educational sphere also impacts students' self-regulation processes, since, when properly used, they can enhance such development. According to Freire (2009), self-regulation is a capacity developed by students to become proactive in tasks, exercising self-control over their learning and cognitive processes.

Ferreira and Pedrosa (2024) state that self-regulation is considered a fundamental component for academic and school success. The authors also report that it is an interactive process involving monitoring and reflecting on one's own learning, requiring students to understand their thinking (metacognition), actively participate in their learning, and use cognitive, metacognitive, behavioral, and motivational strategies.

However, despite the emphasis on the use of DT and the promotion of teaching that fosters self-regulatory competencies, little research has been conducted on the technological and self-regulatory characteristics of the students for whom these practices are designed. This gap is significant, as such data can assist teachers in organizing more assertive strategies, thereby enhancing practices that employ technologies.

Some scholars, such as Cavalcante and Ramalho (2007), highlight the urgency of investigating the specificities related to behaviors, habits, and demands of individuals in the online environment. Basso and Abrahão (2018), in turn, mention that studies conducted in recent decades on self-regulated learning demonstrate that this topic is essential for understanding the various teaching and learning processes and academic success.

In this regard, when conducting a literature review on studies addressing technological and self-regulation characteristics, it is observed that, although some authors have explored this topic (Cavalcante; Ramalho, 2007), few studies are devoted to this premise—particularly those focusing on students in the final years of elementary school.

Given this gap, the need for further research becomes evident. Therefore, this study sought to answer the following question: What are the technological and self-regulation characteristics of students in the final years of elementary school? This research aimed to investigate the technological and self-regulation characteristics of students in the final years of elementary school.

2 PEDAGOGICAL PRACTICES INVOLVING DIGITAL TECHNOLOGIES

Promoting a more significant impact of Digital Technologies (DT) on the teaching and learning process remains a challenge for teachers and researchers in the educational field, even for those who already use them. Nevertheless, their potential can be explored at all levels of education to maximize the benefits they offer (Sarker *et al*., 2019). In this context, Galante and Pilon (2024) highlight that, despite living in a highly technological era, schools still operate in a traditional manner, thereby widening the gap between the digital resources young people use and those provided within the school environment. This gap makes them vulnerable to the fascination of new technologies, impairing their ability to use them critically and creatively.

Furthermore, there is a slow incorporation of digital resources into education, as institutions take time to integrate them into teaching and learning strategies. However, their use fosters aspects such as interactivity, the application of different media, synchronous and asynchronous interactions, online resources, ongoing communication, and collaboration (López; Méndez, 2004).

Thus, the school constitutes a potential space for digital inclusion, working with the competencies necessary for the proper use of technologies and for digital literacy. For this integration to occur, the appropriation of these resources is one of the basic conditions (Barbosa *et al*., 2013).

Rodriguez (2018) presents a connection between cyberculture and education, advocating for the need for didactic activities that support student learning through the resources and possibilities that the internet provides, with proposals that promote more personalized and cooperative learning.

Therefore, to improve the integration of DTs, it is essential to understand students' experiences with them, their level of familiarity, and which technologies they use. Cavalcante and Ramalho (2007) argue that, by knowing students' digital experiences, it is possible to promote proposals aligned with their interests; thus,

it is important to understand how they establish their relationships in the search for information.

Regarding access to and availability of information, the internet has brought changes to both in-person and distance education, deconstructing the paradigm of learning limited to school time and space. With technological possibilities, it is now feasible to learn in various places and moments, either collaboratively or individually (Moran, 2012).

In addition to offering numerous possibilities to young people, the internet also presents complex challenges regarding critical thinking, as the excess of information may facilitate access to erroneous or simplified content, or to resources that do not perform tasks properly, merely copying what is found online (Cavalcante; Ramalho, 2007).

Oliveira (2017) reflects on internet connection time and aspects related to adolescence. According to the author, the speed of the internet disrupts traditional concepts of time and space, resulting in a social configuration in which the user moves from being a spectator to a participant, who, when disconnected, feels the impact of disconnection. It is, therefore, a redefinition of time, expressed by constant connectivity, which has evolved from the use of DT and interaction toward integration.

The internet is frequently used by young people for communication, primarily through email and social networks. Thus, beyond accessing the web for schoolwork, they use it for social exchanges, entertainment, sharing information, creating personal pages, among other purposes (Cavalcante; Ramalho, 2007; Moran, 2012).

Regarding social networks—widely used by young audiences—they essentially express “interactivity, the creation of bonds with others, that is, fundamental and intrinsically human elements” (Umbelina, 2012, p. 4). Therefore, considering them in teaching can represent a pathway to an environment widely used by students, as part of their reality; however, their introduction must be critical, safe, effective, and productive (Umbelina, 2012).

Moran (2012) warns that the pedagogical mastery of technologies is a complex and gradual process that improves through practice over the years, bringing about deeper changes in the long term. In this way, technologies serve as support to mediate more meaningful practices that foster a more active stance among students and, consequently, stimulate their self-regulation.

3 SELF-REGULATION AND SELF-REGULATORY CHARACTERISTICS

According to the foundations of Social Cognitive Theory, self-regulation is “a dynamic process that involves personal factors, environmental variables, and the individual’s action or behavior” (Fernandes; Bianchini; Alliprandini, 2020, p. 271). Self-regulation results from the interaction of personal variables such as knowledge, skills, and motivations, which enable the planning, organization, and control of processes, outcomes, and contextual factors, culminating in the possibility of a strategic and purposeful attitude (Silva; Simão; Sá, 2004).

Among the characteristics of a self-regulated student are actions such as prior planning and reflection, monitoring of cognitive, behavioral, affective, and contextual aspects, and control over the activities performed (Talbert, 2019).

Although there is some variation across studies devoted to self-regulation, certain elements are recurrent, such as self-efficacy, the use of cognitive and motivational strategies, the establishment of learning goals, and learner commitment (Simão; Frison, 2013). Thus, self-regulation "involves more than detailed knowledge of a skill; it involves self-awareness, self-motivation, and behavioral skill to implement that knowledge appropriately" (Zimmerman, 2002, p. 66).

Learners can monitor, control, and regulate their cognition, motivation, and behavior. However, this does not mean that such monitoring and control occur in all situations or environments, but rather that some degree of control is possible. This is because factors such as biological, developmental, contextual, and individual variations can hinder or interfere with regulatory efforts (Pintrich, 2004).

Researchers on self-regulation have found one of its main fields of application to be the educational context, as it is increasingly recognized that students should be taught to understand and apply self-regulatory principles that allow them to reflect on their actions and exercise control over their learning processes. Through these principles, students can take an active role in their learning and better direct their goals (Silva; Simão; Sá, 2004).

Thus, in the educational context, self-regulation is a characteristic related to "the mechanisms of voluntary attention that the individual exerts over their actions" (Beltrán Nuñez; Pinheiro; Gonçalves, 2018, p. 3). According to the authors, it manifests as proactivity in learning, through which the student adopts an active stance toward the process, directing and regulating their actions to achieve the intended goal in an increasingly autonomous manner.

The self-regulatory mechanism is dynamic because monitoring, control, and reaction actions can occur simultaneously as the student progresses in the task. Throughout this process, they may redefine goals and plans as they receive feedback. Cognitive control is also important for self-regulation and includes metacognitive strategies that help students plan and monitor their learning (Pintrich, 2004).

Simão and Frison (2013) argue that the construct of self-regulation contributes to understanding variations in students' learning, as it reinforces their active role and considers the influence of the environment. From this perspective, the student, as an active learner, can enhance cognitive, metacognitive, and motivational processes in their learning. However, it is important to foster the development of these competencies without imposing premature responsibility or excessively emphasizing personal competence, which may lead to negative effects in subsequent self-regulatory stages.

Barnard-Brak, Paton, and Lan (2010) identify different classes or levels of self-regulated learning among students, which appear to be associated with significantly different outcomes. These categories include: highly self-regulated learners; competent self-regulators (those who do what is necessary to achieve learning goals, but no more than that); forethoughtful self-regulators (those who think ahead, are proactive, and care about self-regulation a priori, but do not

necessarily follow through with strategies, time management, or help-seeking); performance/reflection self-regulators (focused on performance control and self-reflection); and non-self-regulators or minimally self-regulated learners.

4 REVIEW OF EMPIRICAL STUDIES

The literature includes some studies that sought to elucidate aspects related to the integration of Digital Technologies (DT) at various educational levels, concerning opinions or patterns of use—whether in school settings or daily life—as well as students' self-regulation characteristics.

Oliveira (2017) investigated the relationship between the internet, adolescents' connection time, and education, and found that among 481 respondents, 48% accessed the internet via cell phone and 23% via laptop, which demonstrates the presence of mobile technologies in this group. Moreover, the study revealed that respondents mainly used the internet for accessing social media and conducting research.

Pinheiro and Pinheiro (2021), when addressing the use of cell phones during the pandemic, reflected on the increasing use of these devices by students for various purposes and highlighted dilemmas regarding the daily time spent on social media applications (such as WhatsApp, Facebook, and Instagram), as well as the countless possibilities that mobile devices offer to this age group—both positive and negative.

Pimentel and Costa (2018) conducted a study with Elementary School students, aiming to analyze how they incorporate and use Digital Information and Communication Technologies (DICT) in their daily lives, given their wide availability in the current sociocultural context. According to the data collected, 96.5% of respondents reported owning a computer or laptop, 86% owned a tablet, 96.5% had internet access at home, and the most frequently used social network among them was Facebook.

Empirical research on self-regulation is less common in Elementary Education, generally focusing on university contexts. In the study by Fluminhan and Murgo (2019), sixth-grade students were investigated regarding their metacognitive processes and cognitive skills for learning. Although the results revealed limited use of learning strategies during study sessions, the authors pointed out that such strategies contribute to performance by fostering awareness of one's own learning process.

Tortella and Oliveira (2015) examined the self-regulation process of Elementary School students through the creation of study journals. Monitoring these journals allowed teachers to understand the procedures used by students, supporting later interventions and reflections on educational practices. The analysis showed that students were easily distracted while completing tasks, but as the project progressed, they demonstrated behavioral changes toward studying.

Fernandes, Bianchini, and Alliprandini (2020) analyzed the self-regulated learning profile of distance-learning Pedagogy undergraduates, who generally

exhibited a satisfactory level of self-regulation—an essential condition for success in this mode of education.

5 METHODOLOGICAL PROCEDURES

This study is characterized as a case study, and regarding its approach, it is quantitative research, which, among other objectives, aims to investigate how many individuals within a given population share a certain characteristic or a group of characteristics. It also serves to determine the profile of a group of people based on the attributes they have in common (Moresi, 2003).

The participants were 80 students from the final years of Elementary School at a municipal school located in the metropolitan region of Porto Alegre/RS. This number represents the total of students enrolled in the final years at that school, which is small in size and offers both Early Childhood and Elementary Education. Regarding ethical aspects, this article is part of a project approved by the Research Ethics Committee for Human Beings of the affiliated university, under protocol number CAAE 00331018.2.0000.5349.

The data presented in this article were collected during a postdoctoral research project in the first semester of 2019, through the in-person administration of a questionnaire consisting of five closed-ended questions and one Likert-scale question, which are specified along with the results. The closed-ended questions referred to technological characteristics, while the Likert-scale question referred to the process of self-regulated learning.

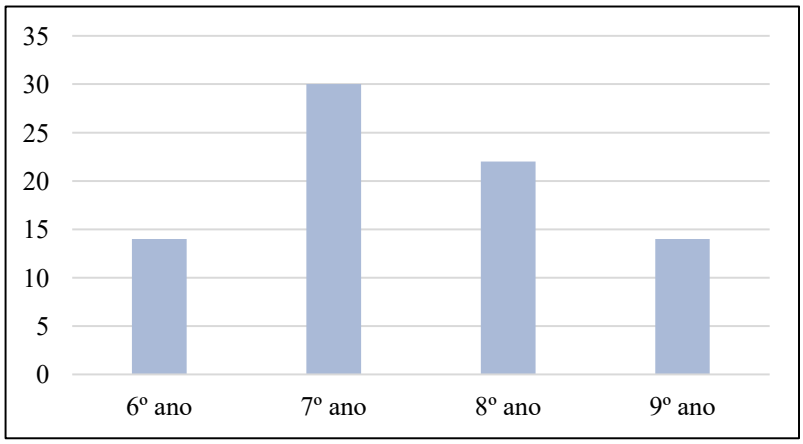
For the analysis of the closed-ended questions, descriptive statistical analysis was employed to obtain response scores, which were organized into pie charts (for technological characteristics) and column comparison charts (for self-regulation characteristics). For question 6, which required listing, content analysis based on Bardin (2011) was used in order to establish categories from the participants' responses.

6 RESULTS AND DISCUSSION

6.1 Characterization of the Group of Participants

Regarding the characterization of the participating group, the 80 students were enrolled in the final years of Elementary School, whose distribution by grade level is shown in Figure 1:

Figure 1 – Number of participants by grade level in Elementary School

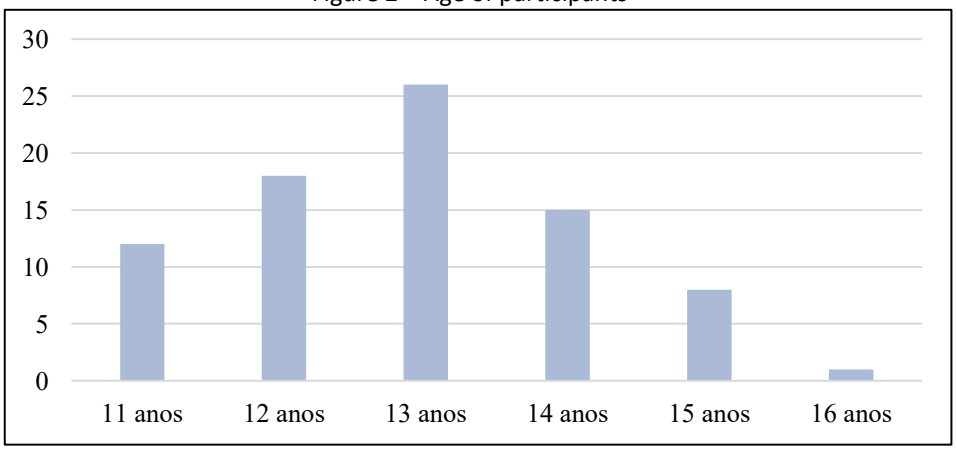


Source: Prepared by the authors (2019).

From Figure 1, it can be observed that the class with the largest number of students (30) was the seventh grade, followed by the eighth grade (22); the smallest classes were the sixth and ninth grades, with 14 students each.

The students were also characterized according to their age, and the corresponding data are presented in Figure 2:

Figure 2 – Age of participants



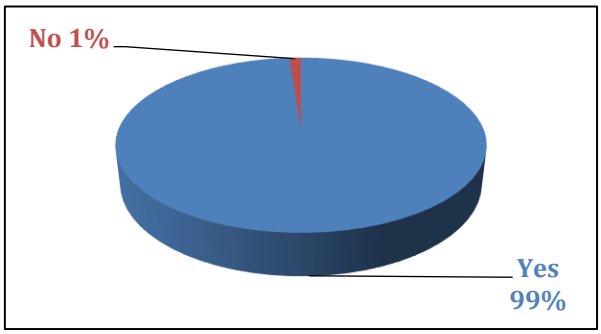
Source: Prepared by the authors (2019).

Figure 2 shows that the participants' ages ranged from 11 to 16 years old, with the majority between 12 and 14 years old.

6.2 Technological Characteristics

Regarding technological characteristics, the students were initially asked about their internet access, and the data are presented in Figure 3:

Figure 3 – Percentage of students who usually access the internet



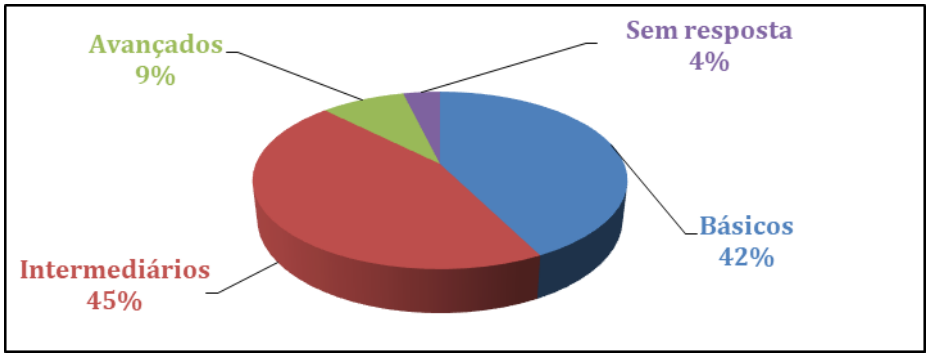
Source: Prepared by the authors (2019).

Almost all students (99%) reported that they usually access the internet, indicating that this habit is part of their daily lives and can be leveraged for activities that require online access. In the study by Cavalcante and Ramalho (2007), students in the final years of Elementary School also stated that they commonly used the internet—91.2% at home, 32.2% at relatives' homes, and 29.4% at school.

According to Barbosa *et al*. (2013), the use of the internet contributes to the democratization of access to information, promotes the dissemination of content, and encourages the emergence of virtual networks and collective exchanges. Nevertheless, the authors emphasize that, despite the widespread use of the internet among students, schools still need to make greater use of it to enhance pedagogical practices.

The students were also asked how they classified their computer skills, and the percentage of responses is shown in Figure 4:

Figure 4 – How students classify their computer skills

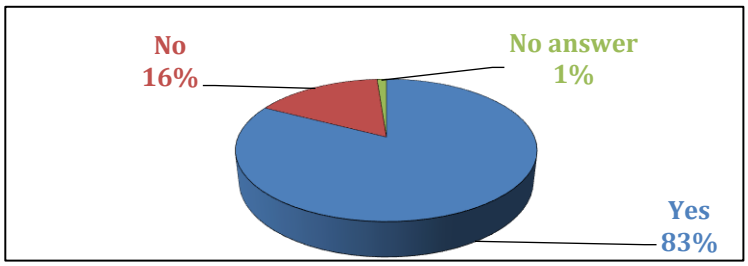


Source: Prepared by the authors (2019).

From Figure 4, it can be seen that most students consider their computer skills to be intermediate (45%) or basic (42%), while only 9% believe they have advanced knowledge in this area.

The students were also asked about their use of email, and the percentage of responses is presented in Figure 5:

Figure 5 – Percentage of email use among participants



Source: Prepared by the authors (2019).

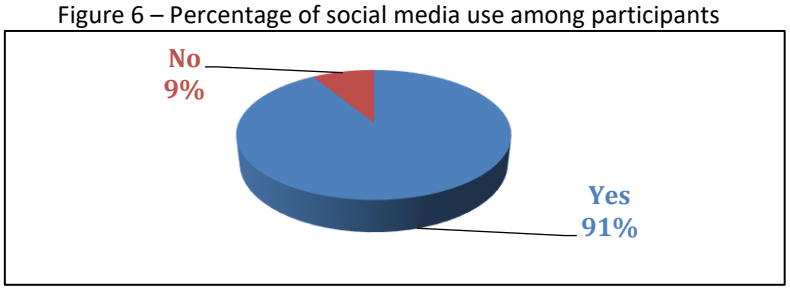
For this question, a considerable portion (83%) stated that they use email, while 16% reported not using it. In the study by Cavalcante and Ramalho (2007), students in the final years of Elementary School were asked about their use of email, and 94.1% said they used it, while 5.9% did not. Neuenfeldt *et al*. (2010) found that, among a sample of 329 high school students, 19% said they did not have an email account.

In the study conducted by Pimentel and Costa (2018), 14% of the children surveyed reported not having an email account. The authors compared this result to the percentage of respondents who had internet access (96.5%), suggesting a preference for other online tools. According to the authors, this limited use of email indicates that children already choose to use other resources that better meet their needs and offer greater interaction possibilities.

Barbosa *et al*. (2013) point out that certain technology-related practices—such as using email and instant messaging—are performed without major difficulty by Brazilian students, indicating that they have developed some technical skills in relation to digital technologies. However, the authors note that these skills do not necessarily translate into the ability to use technology critically.

The participants were also asked about their use of social media, and the data are presented in Figure 6:

Figure 6 – Percentage of social media use among participants



Source: Prepared by the authors (2019).

From Figure 6, it can be observed that the majority of students (91%) use social networks, while only 9% do not. This finding aligns with Barbosa *et al*. (2013), who emphasize that participation in social networks is a routine habit among students and represents a new social phenomenon.

This question regarding social networks, classified as a filter question, was followed by another addressed to those who responded that they used them, asking them to specify which social networks they participated in. The answers were categorized using Bardin's (2011) content analysis and are presented in Table 1:

Table 1 – Social networks used by students

CATEGORY	PRIMARY SUBCATEGORIES	SECONDARY SUBCATEGORIES	f	RESPONSES (%)	STUDENTS (%)
Social networks used by students	WhatsApp		61	27.8	83.5
	Facebook		59	26.9	80.8
	Instagram		42	19.1	57.5
	Messenger		7	3.2	9.5
	Twitter		6	2.7	8.2
	Snapchat		3	1.4	4.1
	No answer		2	0.9	2.7
	Discord		1	0.9	2.7
	Pinterest		1	0.9	2.7
	Musically		1	0.9	2.7
	Outras mídias	Youtube	25	11.4	34.2
		Flipboard	3	1.4	4.1
		Free Fire	2	0.9	2.7
		Fortnite	2	0.9	2.7
		Google	2	0.9	2.7
		Skype	1	0.9	2.7
		Epic Games	1	0.5	1.3
Total			219	0.5	1.3

Source: Prepared by the authors (2019).

The most frequently used social network among participants was WhatsApp, with 61 mentions, followed by Facebook with 59 and Instagram with 42. In the study by Gewehr and Strohschoen (2017), Elementary School students were asked about their preferences regarding social networks, and the most cited were Facebook and WhatsApp, respectively, which corroborates the results presented in Table 1, as these were also the two most frequently mentioned platforms.

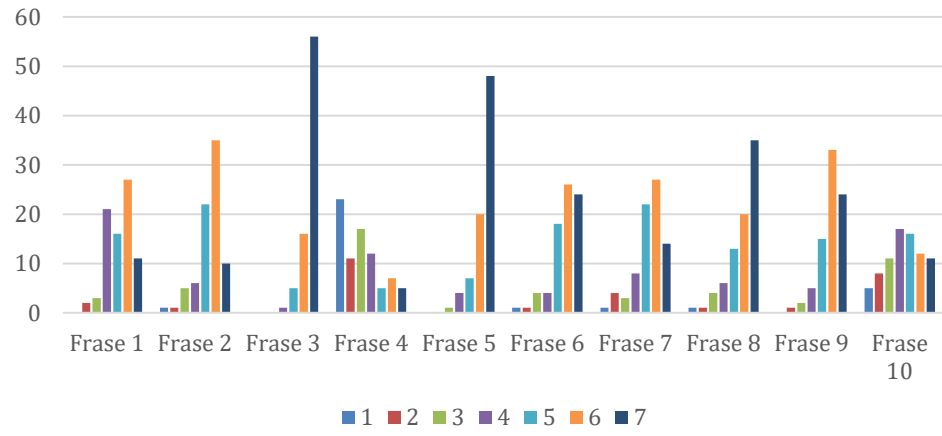
Pinheiro and Pinheiro (2021) found in their study that among the most common activities performed on cell phones by students were accessing WhatsApp (first place), followed by music apps, Instagram, Google Classroom, and YouTube. When cross-analyzing their data, the authors explained the predominant use of WhatsApp by noting that adolescents display a constant need to remain connected for virtual social interaction with peers.

In addition to social networks, students mentioned other media such as YouTube (a video-sharing platform), which had a significant percentage (f=25); games (such as Flipboard and Fortnite); a game store (Epic Games); an internet search engine (Google); and Skype (a video calling software). These findings indicate that adolescents often blur the distinctions between different types of media, as all the mentioned platforms were considered by them to be social networks.

6.3 Self-regulatory characteristics

In the second section of the questionnaire, students were asked about their self-regulation habits through a Likert-scale question composed of ten statements. For each statement, they were to select one of the options on a seven-point scale, with one meaning “not true for me” and seven meaning “very true for me.” The scale markings are presented in Figure 7 and represent the participants’ self-regulatory characteristics.

Figure 7 – Self-regulatory characteristics of the participants



Statement 1: I work hard to learn the class content, even when I don’t like what I’m doing.
Statement 2: Even when the subject is uninteresting, I can keep working.
Statement 3: I want to learn as much as possible from my classes.
Statement 4: It’s important to me to do better than my classmates.
Statement 5: I worry if I’m not able to learn the subject content.
Statement 6: When I find a topic or study material difficult to understand, I try to find other ways to solve it.
Statement 7: When I start studying a topic, I first ask myself what I need to do to learn it better.
Statement 8: I ask myself questions to make sure I understand the subjects I’m studying.
Statement 9: While studying, I try to relate the content to what I already know.
Statement 10: I make good use of my study time.

Source: Prepared by the authors (2019).

From Figure 7, it can be observed that the items considered most true (degree seven) by the participants were those represented by statements three (“I want to learn as much as possible from my classes”), five (“I worry if I’m not able to learn the subject content”), and eight (“I ask myself questions to make sure I understand the subjects I’m studying”). These data reveal that the students in question are mainly concerned with being able to learn the content.

Talbert (2019) emphasizes that a self-regulated learner needs to develop knowledge that is not limited only to content, but also includes setting personal goals and understanding whether the knowledge they possess is sufficient to achieve them. Thus, according to the author, self-regulated learning goes beyond mere mastery of content; it involves adopting a proactive attitude toward various

aspects of the learning process, taking a certain degree of control over these elements.

Statements nine ("While studying, I try to relate the content to what I already know") and six ("When I find a topic or study material difficult to understand, I try to find other ways to solve it") also showed expressive indices as being true for the students (degrees six + seven). Basso and Abrahão (2018) emphasize the need to develop autonomy and responsibility for one's own learning from the early years of schooling, which can be fostered through strategies organized by the teacher to support the improvement of self-regulated learning.

Regarding item six ("When I find a topic or study material difficult to understand, I try to find other ways to solve it"), this is a favorable self-regulatory attitude shown by the participants, since, according to Zimmerman (2002), when a student cannot understand a certain point of the content covered in class, they should have self-awareness and strategic knowledge to take corrective measures.

The statement rated as least true (degree one) by the students was number four ("It's important to me to do better than my classmates"), indicating that standing out from others was not seen as a relevant aspect for this group.

The statement that presented the most varied responses was number ten ("I make good use of my study time"), suggesting that several participants believe they could make better use of their study time. Making appropriate use of study time is an essential aspect of self-regulated learning, as it helps learners take better advantage of it.

From this perspective, "self-regulation aims at optimizing learning and improving students' perception of their own efficiency and the control they have over learning processes" (Basso; Abrahão, 2018, p. 497). Thus, when students recognize something that can be improved, such as study time, they may adopt a different attitude or approach toward that issue.

Time management was also one of the aspects evaluated in the study by Fernandes, Bianchini, and Alliprandini (2020), which analyzed the self-regulation profile of Pedagogy students. One of the items of (total or partial) agreement was the attempt to distribute study time satisfactorily; they also found that the older the student, the more self-regulated they tend to be. According to Barnard-Brak, Paton, and Lan (2010), time-management skills, task strategies, and help-seeking are associated with the performance-control phase of self-regulation.

Other items that showed considerably varied responses were one ("I work hard to learn the class content, even when I don't like what I'm doing") and two ("Even when the subject is uninteresting, I can keep working"). This indicates that the participants do not always dedicate themselves equally to a task that they find unpleasant or uninteresting. According to Zimmerman (2002, p. 67), "motivation does not arise from the task itself but from the use of self-regulatory processes, such as self-monitoring, and the effects of these processes on self-beliefs."

Teaching self-regulated learning processes is relevant, especially at a time when these essential lifelong learning qualities are not widely demonstrated by many students (Zimmerman, 2002). In this sense, understanding students' self-regulation mechanisms is an important first step toward helping them improve such skills, which are so necessary in contemporary times.

7 FINAL CONSIDERATIONS

This study aimed to investigate the technological and self-regulatory characteristics of students in the final years of elementary school. By applying a questionnaire to 80 students, it was possible to gather relevant information on these aspects.

Regarding technological characteristics, most participants considered their computer skills to be intermediate (45%) or basic (42%), reinforcing the need to differentiate the everyday use of digital technologies from their application for learning purposes.

A considerable portion of the respondents reported using email (83%) and, above all, social networks (91%), confirming that most young people are constantly engaged in such environments. The most frequently mentioned social networks were WhatsApp, Facebook, and Instagram.

Concerning self-regulatory characteristics, the data indicated that participants were mainly concerned with effectively learning the content, as the items considered most true by them were related to this aspect — such as wanting to learn as much as possible from their classes, worrying about not being able to learn the content, and asking themselves questions to check their understanding.

The least true aspect revealed that most participants did not consider it important to outperform their classmates. The item with the most varied responses referred to making good use of study time, suggesting that students are aware this is an area that requires improvement as part of their self-regulatory behavior.

Despite its limitations — such as the limited qualitative approach to explore the context more deeply — this study contributes by presenting the technological and self-regulatory characteristics of a group of 80 students in the final years of elementary school. Investigating these aspects is relevant since data of this kind make it possible to understand students' technological preferences, their use of digital technologies in daily life, and their self-regulation habits. Such information can help teachers when planning and implementing pedagogical practices involving these technologies, as well as strategies aimed at enhancing students' self-regulated learning.

Therefore, it is suggested that further studies be conducted to identify these characteristics in other groups of students, in order to expand the literature on this topic and clarify the preferences of this population. Such findings can contribute to more effective integration of digital technologies in educational settings.

It is also recommended that research focused on investigating the technological and self-regulatory characteristics of elementary school students be continued, considering that the data collection for this study occurred before the COVID-19 pandemic. New studies may highlight different developments in a context reshaped by the pandemic period and explore how this experience may have impacted these aspects.

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CARACTERÍSTICAS TECNOLÓGICAS E DE AUTORREGULAÇÃO DE ALUNOS DOS ANOS FINAIS DO ENSINO FUNDAMENTAL

RESUMO

As tecnologias digitais estão presentes no cotidiano dos alunos de todos os níveis, o que impulsiona sua inserção nas práticas pedagógicas, de modo a adequar o ensino a esse novo contexto, além de aproveitar suas potencialidades para as práticas pedagógicas. Para que esse processo seja eficaz, é importante conhecer como esse público interage com as tecnologias e seu processo de autorregulação, para que essas informações auxiliem na elaboração de tais práticas. Este estudo teve por objetivo investigar as características tecnológicas e de autorregulação de alunos dos anos finais do Ensino Fundamental. Esta pesquisa, um estudo de caso de abordagem quantitativa, teve como participantes 80 educandos dos anos finais do Ensino Fundamental de uma escola municipal da região metropolitana de Porto Alegre/RS. Os dados foram coletados por um questionário e as perguntas analisadas através dos escores das respostas. Verificou-se, em relação às características tecnológicas, que a maioria dos participantes tem o hábito de estar conectados à internet e grande parte considera seus conhecimentos em informática intermediários ou básicos. Parte considerável utiliza e-mail e, principalmente, redes sociais, sendo as mais citadas o WhatsApp e o Facebook. Referente às características de autorregulação, o item mencionado como mais verdadeiro foi a preocupação em conseguir aprender os conteúdos, e o menos verdadeiro mostrou que a maioria não julga importante se sobressair em relação aos outros colegas. O tópico mais variável foi referente ao uso adequado do tempo de estudo, indicando a consciência de que esse ponto precisa ser melhorado, como atitude autorregulatória.

PALAVRAS-CHAVE: Autonomia do Estudante. Tecnologias Digitais. Engajamento. Educação Básica.

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