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COMPETENCE IN INFORMATION (COINFO) IN THE SCHOOL DAILY LIFE: GUIDELINES FOR THE IMPROVEMENT OF THIS COMPETENCE AMONG TEACHERS OF THE STATE EDUCATION NETWORK - SEDUC/SP

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ABSTRACT

This research analyzes the practices of Information Competence (CoInfo) in the daily life of teachers of the state education network linked to the Department of Education (SEDUC), with the objective of proposing guidelines for the development of these competencies. The study starts from the problem related to the challenges faced by teachers in their pedagogical practices, especially with regard to the use, evaluation and dissemination of information. This context was intensified after the changes resulting from the pandemic, the diversification of information platforms, and the advent of generative AIs. The methodology adopted has a qualitative-quantitative nature and uses, as an instrument for data collection, a structured questionnaire applied to teachers, focusing on their experiences and daily needs related to informational practices. The preliminary results indicate the need to

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develop specific strategies that support teachers in their daily practices, taking into account both the challenges and the potentialities identified in the school environment. As a contribution, the research proposes practical guidelines for the development of CoInfo, based on the real experiences and needs of teachers, with the objective of strengthening their informational skills and, consequently, their pedagogical practices.

Keywords: Information Competence. Teaching Practice. Public Education. SEDUC.

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INTRODUCTION

Information Competence (CoInfo) emerges as an essential pillar in contemporary teaching practice, especially for teachers in the state education network linked to the Department of Education (SEDUC). In a scenario of constant technological advancement and increase in the volume of information available, teachers face significant challenges when efficiently seeking, evaluating, and applying information in their daily pedagogical practices. This complex reality requires teachers to continuously improve their informational practices to meet the demands of contemporary education.

The experience of remote teaching during the pandemic accentuated the need to develop competence in accessing and using more assertive information for classroom performance. However, it is known that many teachers have reported finding difficulties in identifying reliable sources, critically evaluating the available information and integrating various informational resources into their daily practices. This context becomes even more challenging due to the diversification of information platforms and the advent of generative AIs, which intensifies the need to adapt informational practices to the different realities of state schools.

In view of this panorama, this research aims to analyze the practices of Information Competence (CoInfo) in the daily life of teachers in the state network, with a view to proposing guidelines that meet the needs and real experiences of the teaching staff. To achieve this purpose, it is specifically sought to: identify the strategies of critical evaluation of sources used by teachers; investigate the practices of ethical use of information and combat disinformation in the school environment; map the strategies for searching for information adopted; and to propose practical guidelines for the integration of informational resources in the school routine.

The relevance of this study is based on several aspects, firstly, the importance of CoInfo in routine pedagogical practices and, consequently, on the quality of education offered to students in the state network. Secondly, because of the urgent need to support teachers in the challenges posed by the age of disinformation and the complexity of the information environment.

For these reasons, this study is considered particularly relevant in the context of state schools, where different realities demand strategies adapted to the school routine. In addition, the research contributes to studies focused on Information Science by bringing

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theoretical discussions on CoInfo closer to the effective practices of teachers, offering valuable insights for the development of strategies that can support the teaching work.

Methodologically, this study is characterized by a qualitative-quantitative approach, focusing on the informational practices of teachers in the state network. Data collection will be carried out through a structured questionnaire, composed of closed and open questions, ranging from the profile of the participants to their practices of search, evaluation and use of information in the classroom, including the challenges faced. The study population includes basic education teachers. The quantitative analysis will be done through descriptive statistics, while the qualitative data will be examined by content analysis, allowing an in-depth understanding of the teachers' informational practices and enabling the development of guidelines appropriate to the context studied.

This investigation acquires even more relevance in the post-pandemic context, which highlighted the need to strengthen educators' competence in information. By focusing on the real experiences of teachers in the state network, the research seeks to contribute to the understanding of the specificities and demands of the teaching staff, promoting proposals adapted to the school routine and with potential for application in different educational contexts.

DEVELOPMENT

CONTEMPORARY EDUCATION SCENARIO

Contemporary education, as well as other spheres of society, was deeply impacted by the COVID-19 pandemic, which, due to social isolation, brought the need to reorganize educational models worldwide and abruptly emerged the use of technological resources for both students and teachers.

According to Kohn and Moraes, (2007, p.1):

> Today we are walking through another of the social transitions that transform society over time. To understand this process, it is necessary not only to understand the changes in society itself, whether in its way of acting, thinking and relating, but also the evolution of the devices that proposed and/or were part of these changes. It is understood, then, that social transformations are directly linked to the technological transformations that society appropriates to develop and maintain itself.

In response to this new demand, the São Paulo State Department of Education (SEDUC) launched in 2020 the São Paulo Education Media Center Program (CMSP),

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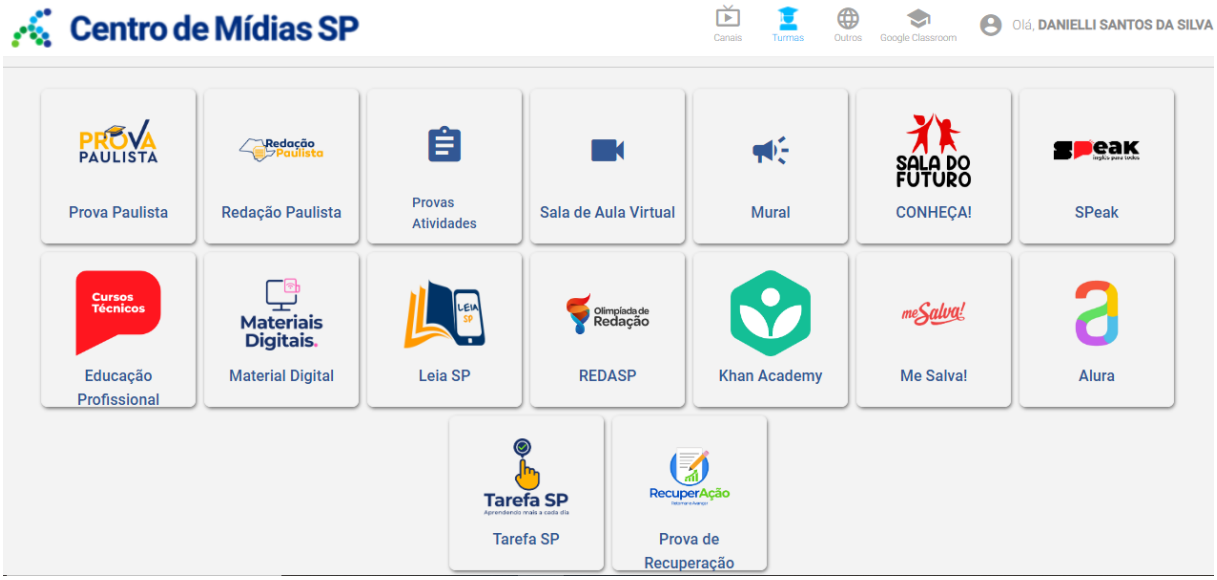
which was instituted by Decree 64,982 of 2020 and aimed to implement technology-mediated teaching.

However, with the return to face-to-face classes, the CMSP remained active for student use, assuming a new role, as today the platform brings together 14 other educational resources that are used by students in the early years, final years of elementary school and high school, as shown in figure 1.

Figure 1 - SP Media Center



Source: SP Media Center (2024). Available at: <https://cmspweb.ip.tv/>.

Each of the educational resources available is on a specific platform, being:

- Prova Paulista - Diagnostic Assessment, bimonthly, applied to students from the 5th to the 9th grade of Elementary School and all of High School, by digital means.
- Essay Paulista - Linked to Portuguese language classes, the platform requests the preparation of two bimonthly essays for each year/grade.
- Test and Activities - Repository where the evaluations, tests and other activities carried out are located.
- Virtual Classroom: Space for remote classes.
- Mural: Space for sending messages and reminders to students
- SpeaK: Directs the student to the *Education First* (EF) website, using the SEDUC-SP institutional login to take English language courses, with the provision of an official certificate.
- Digital Material: Repository of digital materials in PDF format.

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- Robotics/Microbit: Directs the student to the *Makecode website* that provides notions about programming.
- Matific: Interactive game for the playful teaching of mathematics.
- Read SP: Virtual library for access and reading of one book every two months per student.
- REDASP: Platform for the realization of the Writing Olympiad of the state of São Paulo.
- Alura: Platform for Technology and Innovation classes that offers two bimonthly courses.
- SP Task: Gathers the daily tasks that are automatically posted from the teacher's class record.
- Retrieval Exam: The user is redirected to the Exams/Activities platform, where they can access the end-of-semester remedial evaluations are published.

It should be noted that the performance of activities by students has a direct impact on the performance goals established for each subject/teacher and that they are monitored daily by the school management, through the Escola Total platform, in addition to being used as a performance indicator in the payment of the bonus for results of SEDUC teachers, which is regulated by SEDUC resolution No. 48, OF July 10, 2024.

The work of teachers in the state network of the State of São Paulo also requires that they access the Digital School Secretariat (SED), which is the platform used to record student attendance, as well as the content taught in class, among other services, as shown in figure 2.

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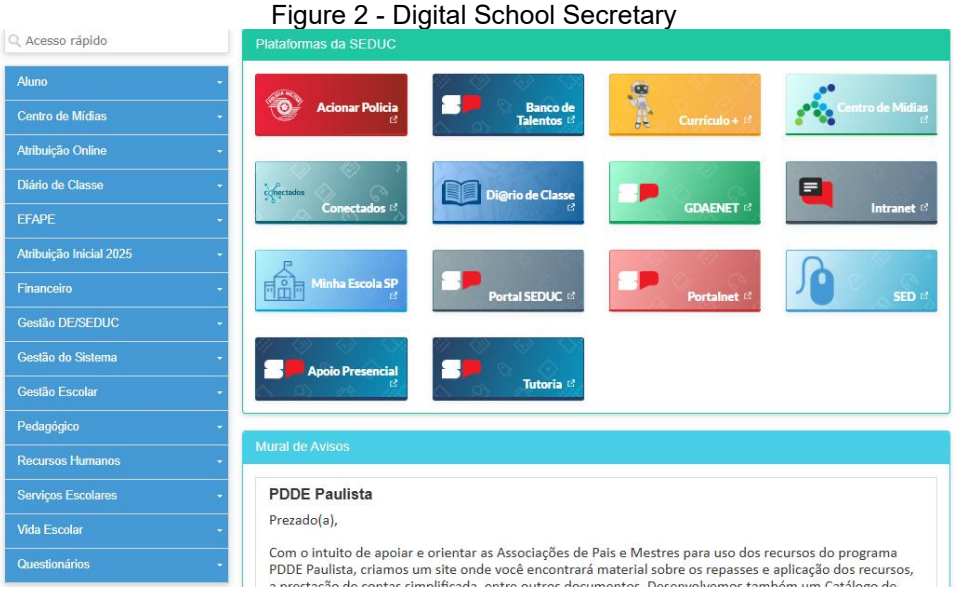
Figure 2 - Digital School Secretary



Source: Government of the State of São Paulo - Secretary of Education of the State of São Paulo (2024). Available at: <https://sed.educacao.sp.gov.br>.

The continuing education of teachers is regulated by the Law of Guidelines and Bases of National Education (LDB), Law No. 9,394/1996, by the National Education Plan (PNE), instituted by Law No. 13,005/2014 and by Law No. 14,817, of January 16, 2024, teachers linked to SEDUC must access the Virtual Learning Environment of the School for the Training and Improvement of Education Professionals "Paulo Renato Costa Souza" (AVA-EFAPE), which is the space created in 2009 whose objective is to qualify education professionals through the practice and use of technologies.

Thus, it is observed that education professionals face an informational overload in their daily activities, considering the variety of platforms and functionalities they must use for their pedagogical practice. This multiplicity of tools requires constant adaptation and organization, directly impacting the time and quality of planning and execution of educational activities.

According to Terra and Bax (2003), the excess of information can lead to the loss of control over data, compromising its effective use. In this context, the development of Information Competence (CoInfo) becomes essential for SEDUC teachers, since it allows them to deal with large volumes of data in an organized and assertive way.

COMPETENCE IN INFORMATION (COINFO)

Information Competence (CoInfo) emerged in the twentieth century and was initially focused on the field of organizations, but gained relevance in the academic and corporate

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circles from the 1970s onwards, according to Carbone et al. (2009). This competence is considered to be an area of studies and practices that deals with the skills to recognize when there is a need to search for information, to be in a position to identify, locate and use it effectively in the production of new knowledge, integrating the understanding and use of technologies and the ability to solve problems with responsibility, ethics and legality (Belluzzo, 2005). Theoretical currents that support its principles with different biases, depending on their origins and always focused on the situation in relation to access and use of information for the construction of knowledge, are highlighted: American view (set of qualifications or characteristics underlying the person, which enable him to perform a certain job or deal with a given situation); French vision - (people's achievements in a given context, that is, what they produce or accomplish at work or in a given situation); and, an integrative vision - which places CoInfo, in addition to a set of knowledge, skills and attitudes necessary to perform a certain activity, but also the performance of people in a given context, in terms of behaviors adopted at different times and achievements.

The year 1974 is considered as a milestone for CoInfo, from the publication of Paul Zurkowski who highlighted, in a report, the need to develop new skills for searching and using information that became indispensable with the advancement of Information and Communication Technologies (ICT) in the workplace, thus recommending national support for the training of workers in the application of these skills.

Zurkowski's (1974) proposals were adopted by institutions such as the *American Library Association* (ALA), the *International Federation of Library Associations* (IFLA) and UNESCO, and the ALA created the *Presidential Committee on Information Literacy in 1983* to promote essential skills for the twenty-first century.

In the educational field, CoInfo was introduced by Carol C. Kuhlthau (1987) integrating it in a transversal way into the curricula, and in the following decade, UNESCO began to associate CoInfo with Lifelong Learning[6], encouraging its inclusion and making the informational environment an element of increasing importance with the internet.

In 1997, ALA-ACRL founded the *Institute for Information Literacy*, with a focus on higher education and in the 2000s CoInfo gained relevance with the publication of the IFLA Guidelines (2005), focused on the training of librarians and educators and with the

[6] UNESCO provides advice and experts in the planning and management of education systems to help countries provide quality lifelong learning for all, strengthening countries' capacities to provide inclusive education. It also means technical support in the formulation and implementation of educational policies that respond to contemporary challenges and that are relevant to daily life.

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recognition of UNESCO, considering CoInfo as a fundamental right for education and human development, promoting it as an essential skill for global progress.

In Brazil, the Brazilian Federation of Associations of Librarians, Information Scientists and Institutions (FEBAB) has developed a series of actions aimed at the development and dissemination of CoInfo.

In the European scenario, the actions for the development of CoInfo were supported by the Digital *Competence Framework for Citizens* (DigComp)1.0 in 2013. This document proposed CoInfo as one of the digital skills essential for the activities of contemporary life.

Silva (2024) points out that the *Digital Competence Framework for Citizens* has undergone updates and complementations, the first of which was in 2016, being called DigComp 2.0, emphasizing that this version already warned about informational excess and the process of disinformation in digital media.

In 2020, the document underwent new changes and was renamed DigComp 2.2, focusing on supporting the development of skills by defining the actions for the citizen to become digitally competent. This version has consolidated itself as a reference on the subject, offering planning strategies for initiatives both in the European Union and in its Member States.

It is noteworthy that Freire (2014), dealing with the "Movement of Competences" mentions that:

> We live in a society mediated by information, however, the resources for its access, use, evaluation and communication are insufficient to meet the demands of citizenship. As a result, training is necessary for the development of Information Competence that meets these demands. Information Competence must be understood as a fundamental right of the human person, intrinsic to his or her own being, being essential to his or her survival. It is essential to create discussions about the recognition of these statements, placing Information Competence (CoInfo) in this context, in order to raise reflections and actions in favor of this right. The emergence and importance of CoInfo for Brazil in recent years strongly indicates the need to share experiences and experiences applicable to the Brazilian reality, in order to face challenges that require and imply the reduction of social inequities and regional inequalities, with regard to policies for access and use of information for the exercise of citizenship and lifelong learning (Freire, 2014, without pagination).

What can be inferred, therefore, is that CoInfo is an area of study and research of paramount importance, especially in the contemporary social conjuncture where information and knowledge are necessary in all spheres of society, as pointed out by Silva (2024) when he points out that the use of technological resources aims to promote citizen empowerment, leading people to the transformation of the society in which they live.

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To this end, in addition to CoInfo, the development of other related competencies is strictly necessary and, in this sense, Media Competence and Digital Competence are essential competencies for personal and professional life in the twenty-first century, and it is recommended by UNESCO (2016) that these competencies be amalgamated, including considering the importance of digital transformation and its impacts on contemporary society. Although they are separate fields of practice and research, the intersections and overlaps between the fields continue to strengthen and grow as they evolve.

DEVELOPMENT OF FIELD RESEARCH

The Prefeito Edison Bastos Gasparini school, located at Rua dos Ferroviários, nº. 650, Edison Bastos Gasparini residential nucleus, Bauru (SP) is a school unit belonging to the Board of Education of the Bauru Region and was selected as the universe of the research.

It is a school of the Integral Education Program (PEI) that has the following premises:

I. Full-time student journey, with an integrated curriculum, flexible and diversified matrix;
II. School aligned with the reality of adolescents and young people, preparing students to carry out their Life Project and be protagonists of their education;
III. Teachers and other educators with differentiated professional performance, and in a Regime of Full and Full Dedication to the school unit,
IV. Management Model focused on the effective learning of the student and the terminality of basic education;
V. Differentiated infrastructure, with thematic rooms, reading room, Biology/Chemistry and Physics/Mathematics laboratories, Acessa Escola Program, in the case of high school and thematic rooms, reading room, science laboratory, multipurpose room and computer laboratory in the case of elementary school – Final Years.

PEI Mayor Edison Bastos Gasparini has a workload of 9 hours and in 2024 serves 235 students, from the final years of elementary school and high school. The school's infrastructure consists of learning environments, such as 14 classrooms, 2 activity rooms, 1 covered court, 1 computer lab, while the other environments are: 1 kitchen, 1 pantry, 1 cafeteria, 3 adequate bathrooms, 2 bathrooms for students, 2 bathrooms for employees, 5

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administrative facilities, 3 free spaces, 1 room for teaching and connectivity, the school has 100 Mbps broadband internet.

According to the transparency education portal (2024), the school unit has the technological resources pointed out in figure 3.

Figure 3 - Technological resources PEI Mayor Edison Bastos Gasparini

Source: Transparency education (2024)

The team is composed of 24 teachers, 03 working in school management, 03 in educational support and 18 teachers in the classroom and, in this research, a total of 18 participants were obtained as a sample.

The research was conducted using the questionnaire technique for data collection according to the principles of Marconi and Lakatos (2010) and through *Google Forms*, whose link was shared through the WhatsApp group used by the school team. The participation of the respondents was of an accidental and voluntary nature, characterizing a non-probabilistic sample, which, as described by Laville and Dionne (1999), is a type of sample that is composed of participants selected for their ease of access and their willingness to collaborate.

RESULTS OBTAINED AND COMMENTS

Graph 1 reveals the age distribution of 18 teachers who work in basic education in a state public school. The data show a predominance of teachers in the age group between 31 and 40 years, representing 33.33% of the total professionals. Next, it is observed that 27.78% of the teachers are over 50 years old, while 22.22% are between 41 and 50 years

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old. The lowest percentage corresponds to younger teachers, aged between 20 and 30 years, totaling 16.67% of the teaching staff.

It is interesting to note that more than half of the professionals (61.11%) are over 40 years old, which suggests a faculty with significant professional experience. The relatively balanced distribution among the different age groups indicates a diverse composition of the teaching staff, which can contribute to an interesting exchange of experiences between different generations of educators, potentially benefiting the school environment with different perspectives and pedagogical approaches.

Regarding the academic training of the 18 basic education teachers of a state public school. The analysis of the data reveals that most of the professors have only an undergraduate degree, representing 55.56% of the total, which corresponds to 10 professors. In sequence, it is observed that 22.22% of the professionals (4 professors) have a master's degree, while 16.67% (3 professors) are specialists. The lowest percentage corresponds to professors with doctorates, representing 5.56% of the faculty, equivalent to 1 professor (Graph 2).

It is relevant to highlight that, although more than half of the professors have only an undergraduate degree, there is a significant percentage of professors (44.44%) who sought qualification at higher levels of academic training. This composition suggests a faculty with different levels of training, where the presence of masters and doctors can contribute to the enrichment of pedagogical practices and to the development of more diversified educational projects in the school. The presence of professionals with postgraduate degrees also indicates an interest in the continuity of academic training, an important factor for the quality of teaching in basic education.

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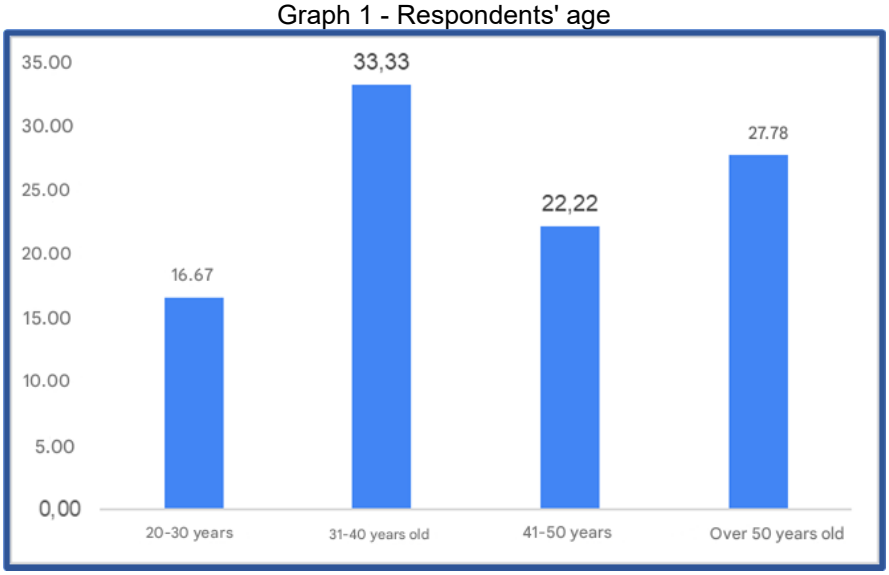
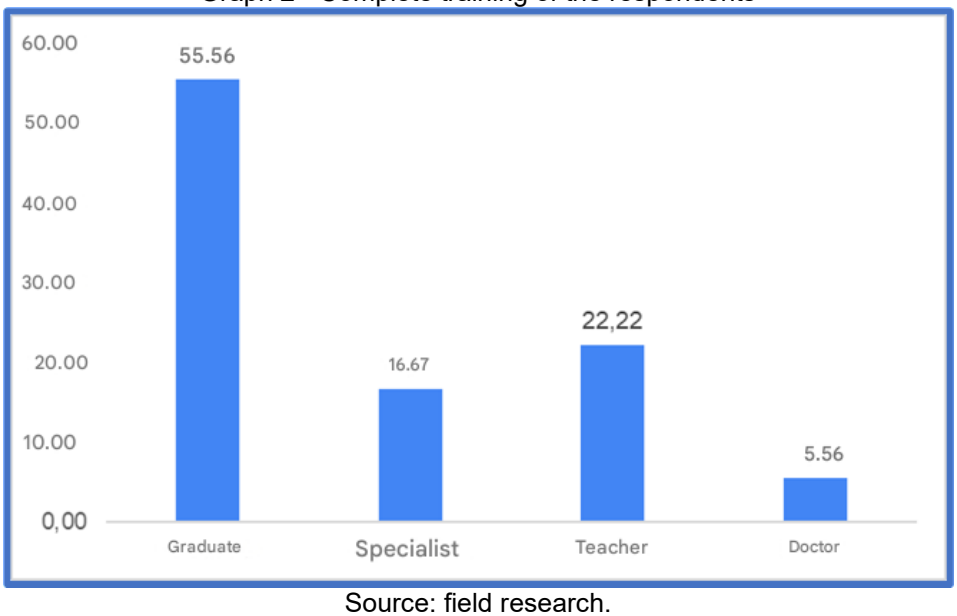
Graph 1 - Respondents' age



Source: field research.

Graph 2 - Complete training of the respondents



Source: field research.

Regarding the distribution of the different functions performed by the participants of this field research around education. There is a clear predominance of the role of Teacher, which represents many respondents, corresponding to 83.33% of the total, Coordinators, with 11.11% of respondents, followed by the role of Principal, with only 5.56% of representativeness (Graph 3).

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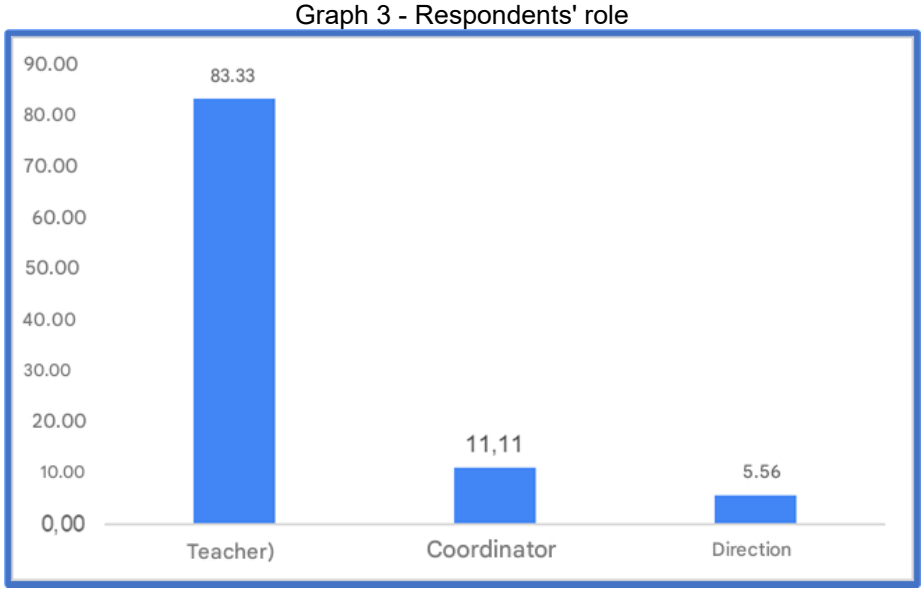
Graph 3 - Respondents' role



Source: field research.

Graph 4 presents data regarding the length of time teachers have been working. The data reveal an interesting distribution of professional experience, where there is a predominance of teachers with significant career time. Two groups have the same percentage of 33.33% each: teachers who have worked between 5 and 10 years (6 teachers) and those with 11 to 20 years of experience (6 teachers), totaling 66.66% of the teaching staff.

Next are professionals with more than 21 years of experience, representing 22.22% (4 teachers), which demonstrates an expressive presence of educators with extensive experience. The lowest percentage corresponds to teachers with less than 5 years of experience, totaling 11.11% (2 teachers). This panorama shows a mostly experienced faculty, since 88.89% of the teachers have more than 5 years of professional experience, which can contribute to a more consolidated pedagogical practice and to the construction of a school environment that combines experience and knowledge accumulated over the years of teaching.

Graph 5 presents data on the frequency with which teachers carry out research to prepare for their classes. The analysis of the data reveals a positive scenario in relation to the commitment of teachers to planning and updating their pedagogical practices. It is observed that there is an equal distribution between the teachers who carry out surveys daily and weekly, each group representing 44.44% of the total (8 teachers in each category), adding up to 88.88% of the teachers.

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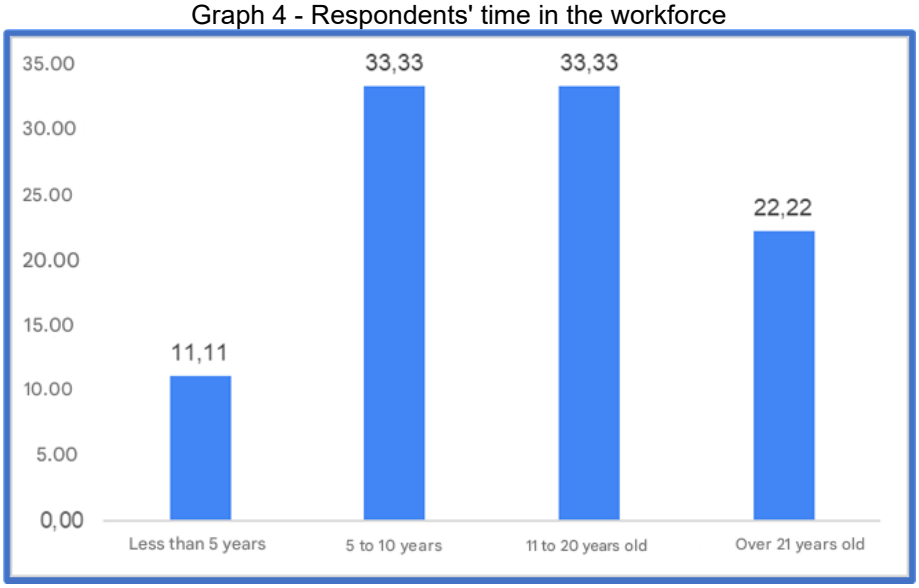
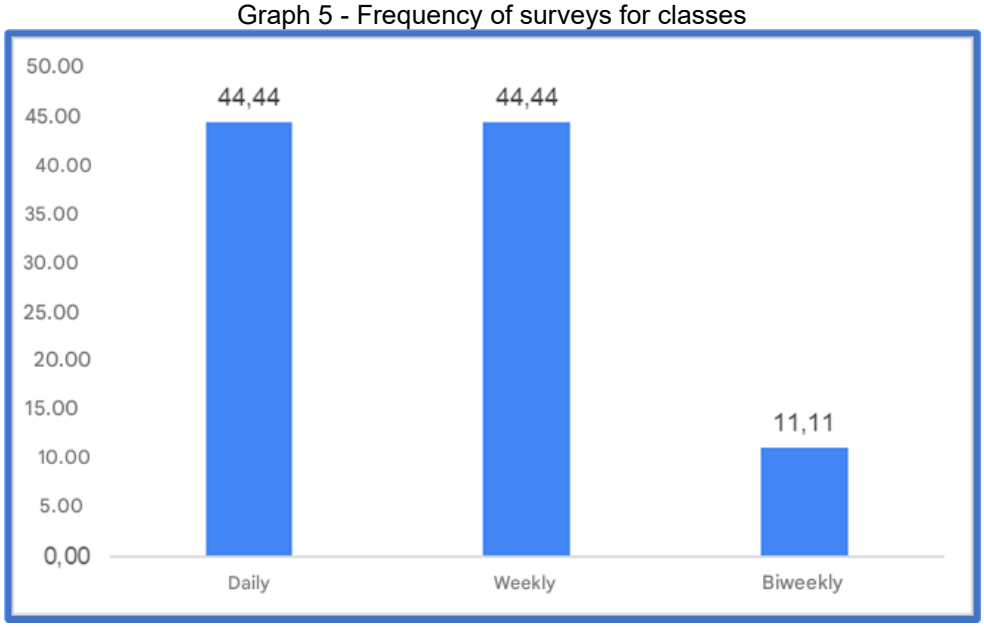
A smaller percentage, corresponding to 11.11% (2 professors), conducts surveys every two weeks. This panorama demonstrates a faculty significantly engaged with the preparation and planning of classes, since the vast majority of professors maintain a frequent routine of research, whether daily or weekly. This practice suggests a constant concern with the quality of the education offered, as well as a commitment to updating the contents and methodologies used in the classroom, essential factors for a more effective and contextualized teaching-learning process.

Graph 4 - Respondents' time in the workforce



Source: field research.

Graph 5 - Frequency of surveys for classes



Source: field research.

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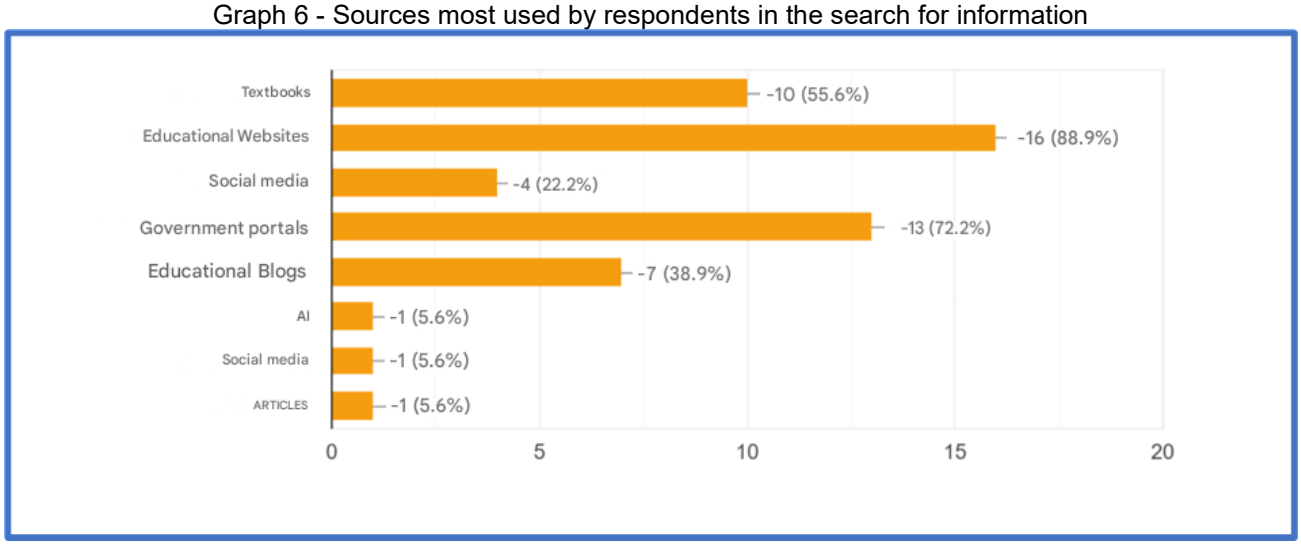
Graph 6 presents the sources of information most used by teachers in their research for class preparation. The analysis of the data reveals a significant predominance of the use of educational websites, being used by 88.9% of the teachers (16 teachers), followed by government portals, consulted by 72.2% of the professionals (13 teachers). Textbooks appear as the third most used source, with 55.6% of adherence (10 teachers).

Next, it is observed that 38.9% of the teachers (7 teachers) use educational blogs as a source of research, while 22.2% (4 teachers) use social networks. With less expressiveness, three sources used by 5.6% of teachers (1 teacher in each category) appear: Artificial Intelligence (AI), social networks (mentioned again) and articles. This scenario demonstrates a clear trend towards the search for information in official and specialized digital environments in education, evidencing an adaptation of teachers to digital technologies as research tools and pedagogical preparation. The diversity of sources consulted also suggests a concern with the variety and quality of the material used for the planning of the classes.

Graph 6 - Sources most used by respondents in the search for information



Source: field research.

Graph 7 presents the reliability and relevance criteria of the sources of information most used by teachers in their research. This analysis provides important insights into the concern of teachers in validating and selecting the information that supports their pedagogical practices.

The data reveal that the main criteria considered by the teachers are: verification of authorship (77.8%), comparison with other sources (77.8%), analysis of the references used (77.8%) and verification of the date of publication (44.4%). These results demonstrate

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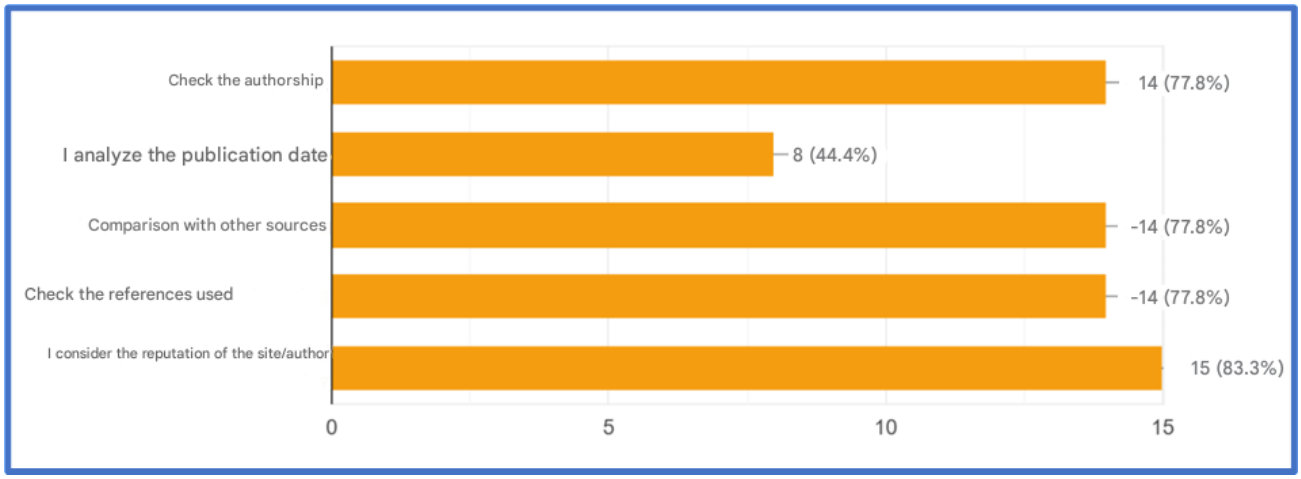
a critical and careful posture on the part of the professors, who seek to ensure the quality, reliability and timeliness of the information used.

In addition, a significant 83.3% of teachers take into account the reputation of the site or the author as an important factor for the selection of sources. This data suggests that teachers are also concerned with consulting recognized and credible sources, reinforcing their commitment to offering students reliable and quality information.

This scenario is very positive, as it indicates that the faculty is concerned with basing their practices on reliable and relevant content, which tends to be reflected in a more solid and effective teaching-learning process. Such a posture shows the responsibility and commitment of teachers to ensure excellence in teaching.

Graph 7 - Reliability and relevance criterion of the sources most used by respondents in the search for information



Source: field research.

Graph 8 presents the opinion of teachers about the quality of the internet available in the school. The analysis of the data reveals a predominantly positive view of the institution's internet infrastructure.

It is observed that the majority of teachers, 50% of them, consider the quality of the internet as "Regular", indicating that, although it is not excellent, it is sufficient for pedagogical needs. This data suggests that, in general, the school's internet network meets the demands of teachers in an acceptable way.

Next, 38.89% of the teachers evaluate the internet as "Good", demonstrating a higher level of satisfaction with the quality and speed of the available connection. This positive perception may indicate that the school's technological infrastructure allows

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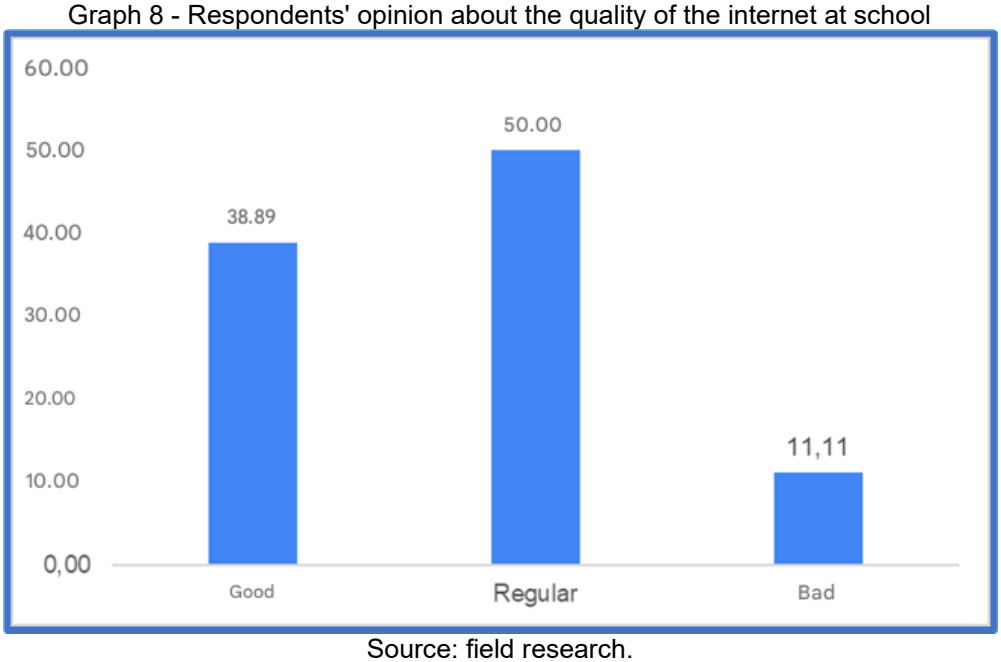
teachers to carry out their research activities, class preparation and use of digital resources effectively.

Finally, 11.11% of teachers consider the internet as "Bad", pointing to the need for improvements in the institution's connectivity network. This minority points to an opportunity for investment and improvement of technological infrastructure, aiming to provide better working conditions for teachers and expand the possibilities of integrating digital technologies in the teaching-learning process.

In general, the scenario reveals that the school has an internet infrastructure that satisfactorily meets the needs of most teachers, although there is room for improvements and specific improvements, as pointed out by the portion of teachers who consider the quality as "Poor".

Graph 8 - Respondents' opinion about the quality of the internet at school



Source: field research.

Graph 9 presents the main difficulties faced by 18 basic education teachers from a state public school when researching information for the preparation of their classes. According to the data, lack of time is the most cited obstacle, mentioned by 72.2% of respondents (13 teachers). This data highlights the challenge faced by teachers in reconciling the requirements of planning and executing classes with the time available to search for information.

In second place, 55.6% of the teachers (10 respondents) point to the excess of information as a barrier. This problem may be related to the difficulty in selecting relevant

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content in an environment of informational overload, especially in the current context, in which there is easy access to a vast amount of data on the internet.

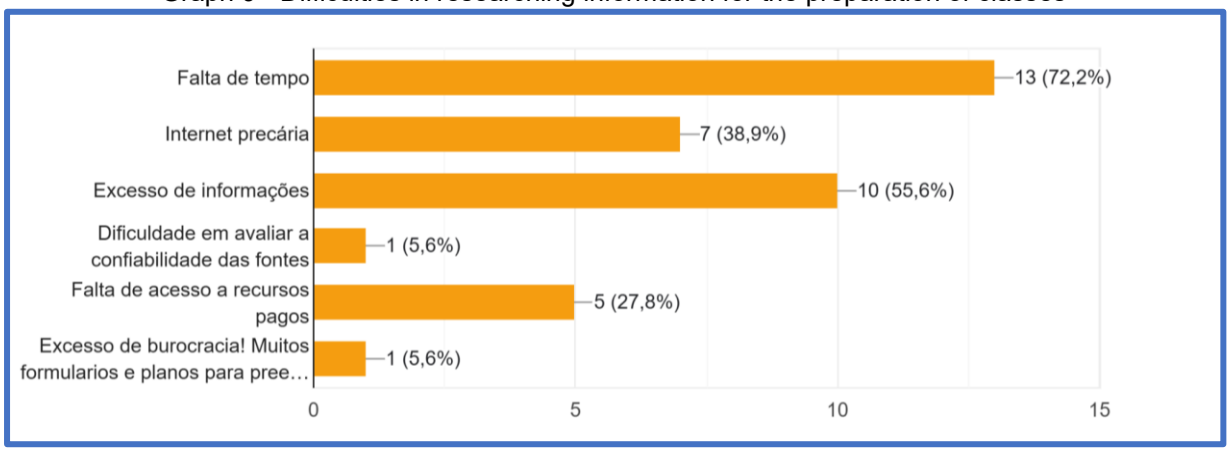
Precarious internet was mentioned by 38.9% of the teachers (7 respondents), indicating that connectivity problems interfere negatively in the research and planning process. This factor limits teachers' access to essential sources and materials for the improvement of their pedagogical practices.

Another significant difficulty is the lack of access to paid resources, mentioned by 27.8% of the respondents (5 teachers). The absence of access to certain content or restricted materials can compromise the quality of the classes, as it limits the options available for the deepening and diversification of the contents.

Finally, the difficulties in evaluating the reliability of the sources and the excess of bureaucracy (such as filling out forms and plans) were pointed out by 5.6% of the respondents (1 professor in each case). Although less mentioned, these aspects still represent obstacles in the process of searching for information and preparing classes.

These data suggest that teachers face a series of challenges, ranging from time and technological limitations to lack of access to materials and methodological difficulties in assessing the reliability of sources. Such factors can impact the quality of teaching, especially when considering the essential role of research and planning in pedagogical practice.

Graph 9 - Difficulties in researching information for the preparation of classes



Source: field research.

Graph 10 shows the participation of 18 basic education teachers from a state public school in continuing education courses related to the search and use of information. It is observed that the vast majority of respondents, 88.89% (16 teachers), have already

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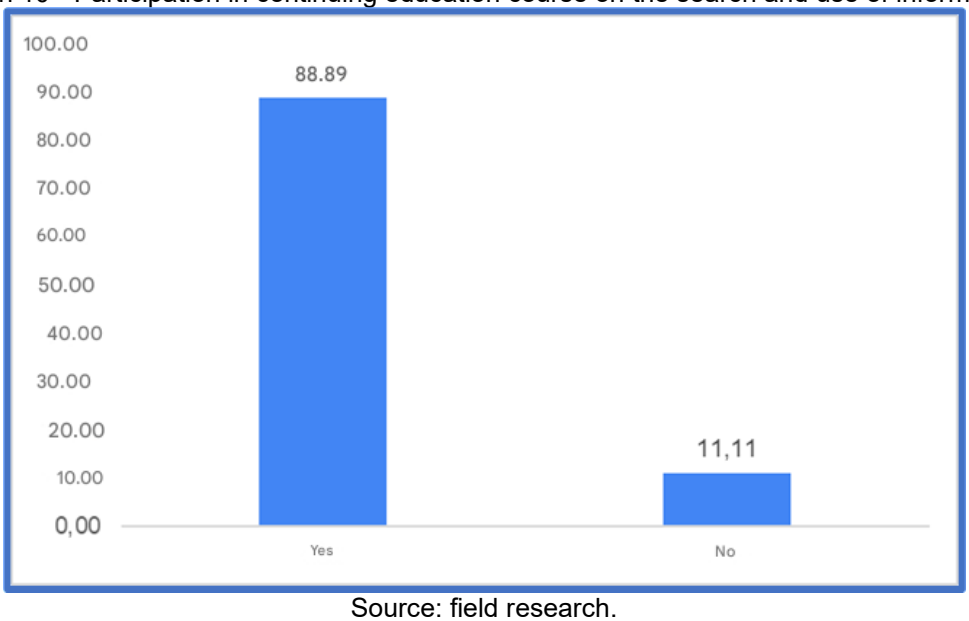
participated in a course with this theme. This data suggests that most teachers recognize the importance of improving their informational skills, probably in order to facilitate the process of preparing classes and dealing with the challenges mentioned in Graph 8.

On the other hand, 11.11% of the teachers (2 respondents) stated that they had not participated in such courses. This percentage, although small, indicates that there are still teachers who, for different reasons, did not seek this specific training. This may point to a possible gap in relation to the development of research skills and information evaluation, which may affect the quality of the pedagogical planning of these professionals.

These data reinforce the importance of promoting and encouraging participation in continuing education courses, especially with regard to the search and appropriate use of information, since these skills are essential for the exercise of teaching in an increasingly informed and digital context.

Graph 10 - Participation in continuing education course on the search and use of information



Source: field research.

Graph 11 shows the level of confidence of teachers in relation to different informational and technological skills. The competencies evaluated include: "Evaluating the reliability of online sources", "Identifying fake news", "Using different databases", "Creating activities using digital resources" and "Teaching students to research".

In the competence "Evaluating the reliability of online sources", the data reveal a very positive scenario in relation to teachers' self-perception. Of the 18 teachers surveyed, 10 (55.6%) indicated a high level of trust, followed by an equal distribution between the

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medium and very high levels, each with 3 teachers (16.7%). Only a minority demonstrated insecurity in this skill, with only 1 teacher (5.5%) in each of the low and very low levels. This distribution is particularly significant as it demonstrates that most educators feel empowered to carry out one of the most fundamental tasks of the digital age: critically evaluating the credibility of information found online. Such competence is crucial not only for the teaching work itself, but also to guide students in the development of a critical look at the sources of information available on the internet.

With regard to the competence "Identifying fake news", the results present a peculiarly balanced and positive distribution among the teachers surveyed. The analysis reveals an exactly equal division between three levels of confidence: 6 teachers (33.3%) indicated a high school level, another 6 (33.3%) indicated a high level and the remaining 6 (33.3%) manifested a very high level of confidence in this skill. Notably, none of the 18 teachers indicated low or very low levels, suggesting a consistently positive perception of the ability to identify fake news. This result is particularly relevant in the contemporary educational context, where the ability to discern true from false information has become a fundamental competence, not only for the exercise of teaching, but also for the critical formation of students in an era marked by the proliferation of disinformation in social networks and digital media.

Regarding the competence "Use different databases", there is a significant concentration in the highest levels of trust among teachers. Of the 18 teachers participating in the survey, 8 (44.4%) indicated a high level of confidence, followed by 6 teachers (33.3%) who indicated a high level of confidence, and 3 teachers (16.7%) who manifested a very high level. Only 1 teacher (5.6%) indicated a low level of confidence in this skill. These data are very promising, as they suggest that the vast majority of educators feel comfortable using and navigating different databases, an essential competence to diversify research sources and enrich the teaching-learning process. The ability to access and use different databases not only expands the repertoire of resources available to the teacher, but also enables a richer and more varied approach to classroom content, contributing to a more comprehensive and up-to-date education.

Regarding the competence "Create activities using digital resources", the results show a positive trend in the self-evaluation of teachers. Of the total of 18 teachers surveyed, 9 (50%) indicated a high level of confidence, constituting the largest portion of the group. Next, 5 teachers (27.8%) manifested a medium level of confidence, while 3

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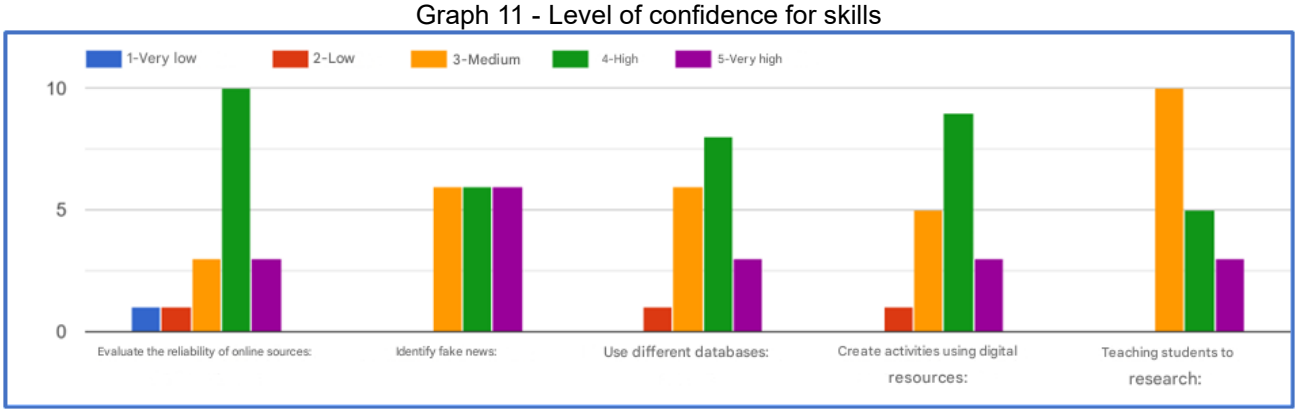
teachers (16.7%) indicated a very high level in this skill. Only 1 teacher (5.5%) indicated a low level of confidence. This distribution is particularly significant in the current educational context, where the ability to create and adapt activities using digital resources has become a fundamental competence. The fact that more than two-thirds of teachers feel confident in this area suggests a good adaptation to the demands of contemporary education, indicating that these professionals are prepared to develop more dynamic and interactive learning experiences, taking advantage of the possibilities offered by digital technologies.

The competence "Teaching students to research" presents an interesting distribution that deserves special attention. Of the 18 teachers participating in the survey, 10 (55.6%) indicated an average level of confidence, representing the majority of the group. Next, 5 teachers (27.8%) indicated a high level, and 3 teachers (16.7%) manifested a very high level of confidence in this skill. It is notable that no teacher indicated low or very low levels, which is positive. However, the significant concentration at the middle level may signal an area that needs further professional development. This competence is particularly crucial in the contemporary educational context, as teaching students to research efficiently and critically is key to developing autonomy in the learning process and preparing students for the challenges of the digital age, where the ability to search, select and evaluate information has become an essential skill.

Graph 11 - Level of confidence for skills



Source: field research.

The detailed analysis of the five digital competencies evaluated in this research reveals a predominantly positive panorama of the self-perception of basic education teachers in relation to their technological skills. The high level of confidence in the evaluation of online sources and in the identification of *fake news* is highlighted, crucial skills for the critical training of students. The use of different databases and the creation of

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activities with digital resources also present encouraging results, with most teachers demonstrating confidence in these skills. Although the competence of teaching students to research has a higher concentration at the secondary level, it still maintains a positive profile, with no indications of low confidence.

This scenario suggests that, although there is room for improvement in some specific areas, the teaching staff demonstrates a solid foundation of digital skills, essential to face the challenges of contemporary education. To further strengthen this framework, it is recommended the implementation of continuing education programs focused especially on areas where the average level of trust predominates, aiming to raise the general level of digital skills and, consequently, the quality of the teaching-learning process in an increasingly digitized context.

The analysis of the themes suggested by the teachers reveals the existence of 11 specific suggestions, which were grouped into six main categories to facilitate interpretation. Below, the numerical distribution of the suggestions by category:

1) Reliable Sources and References: 3 suggestions
   - The importance of reliable references.
   - Data security and search for reliable sources of research.
   - Sources and research.
2) Data Privacy and Security: 2 suggestions
   - Data privacy and protection against cyberattacks.
   - Data security.
3) Fake News and Critical Thinking: 3 suggestions
   - Interference and consequences of *fake news* in the personal and cultural formation of society.
   - Misconceptions disseminated by social networks and communication vehicles.
   - Critical thinking and information analysis.
4) Technology and Sustainability: 2 suggestions
   - Sustainability in technology, including the use of green data centers and sustainable energy.
   - Use and correct application of reliable knowledge and sources.
5) Artificial Intelligence and Digital Tools: 2 suggestions
   - Use of Artificial Intelligence to facilitate the work of teachers.
   - Digital platforms with gamified resources.

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6) Prejudice and Diversity: 1 suggestion

- Discussion about prejudice and racism.

When totaling the suggestions, it is observed that the professors highlighted, in greater number, themes related to the reliability of sources and the fight against *fake news*, both with three suggestions each, reflecting a concern with the quality and veracity of the information. This is followed by the topics of privacy, sustainability, and the use of artificial intelligence, each with two suggestions, indicating a balanced interest between technical and ethical issues. Finally, the theme of prejudice and diversity was mentioned once, but it still demonstrates the relevance of discussing social aspects in the educational context.

These data suggest a need for comprehensive training in Information Competence, which includes both technical skills for evaluating and using sources and critical and ethical skills to deal with information in a responsible and inclusive way. This training will allow teachers to become qualified mediators, prepared to educate students capable of navigating the informational environment with confidence and discernment.

As for the challenges pointed out by the teachers participating in the research, the qualitative analysis revealed several difficulties that were grouped into five main categories, as follows:

1) Lack of Interest and Knowledge of Students: 5 mentions

- Difficulty in making students understand that not everything on the internet is true.
- Awaken interest in knowledge.
- Students who perceive the internet only as a space for social networks and games, not as a source of knowledge.
- The lack of repertoire on relevant news due to the immediacy of social networks.
- Students' lack of interest in diversifying research sources.

2) Excess of Information: 3 mentions

- The excessive amount of information available.
- Students' difficulty in dealing with the excess of information.
- The difficulty in selecting relevant and reliable information.

3) Lack of Equipment and Access to Technology: 3 mentions

- Shortage of computers and tablets for the number of students.
- Need for technological devices and internet free of blockages.
- Limited access to equipment suitable for research and learning.

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4) Lack of Time and Unbalanced Curriculum: 2 mentions

- The lack of time to study and develop research skills, due to an overloaded curriculum.
- Criticism of the workload filled with activities that limit time for studies and autonomous research.

5) Parent and Guardian Participation: 1 mention

- Challenge in dealing with the lack of commitment of some parents and guardians in the education of students.

These difficulties point out highlight a series of barriers that limit the development of students' Information Competence (CoInfo), ranging from structural factors, such as the lack of technological resources, to pedagogical and behavioral aspects, such as students' lack of interest and excess of information. Overcoming these challenges requires a collective effort, involving both educational infrastructure and the active participation of parents and guardians, as well as pedagogical practices that encourage critical thinking and autonomy in the search for knowledge.

FINAL CONSIDERATIONS

The research revealed that Information Competence (CoInfo) is essential for the improvement of pedagogical practices, especially in a context marked by informational overload and the presence of digital technologies in the school environment. The teachers who participated in the field research face several challenges related to access and critical evaluation of the available information, which highlights the need for the continuous development of these competencies.

The data collected indicated that teachers are very willing to improve their informational skills, participating in continuing education courses and adopting technological tools that contribute to a more qualified pedagogical practice, however, despite the commitment of teachers to the search for reliable sources and the constant updating of their knowledge, these professionals still face barriers such as lack of time, insufficient infrastructure and difficulties in selecting relevant content that affect the effectiveness of their practices.

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Such challenges are aggravated by the excess of information, the need for additional technological resources and the lack of interest of students, who often see the internet only as a space for leisure and entertainment.

In view of these findings, the research highlights the importance of specific guidelines aimed at supporting teachers in their daily activities, such as proposals to strengthen continuing education programs focused on CoInfo, expanding access to technologies and promoting practices that promote students' critical thinking.

These actions are fundamental for the development of more informed and effective pedagogical practices, promoting the strengthening of competence in information, naturally in alignment with media and digital competence, which, in turn, contribute directly to a critical, autonomous education aligned with contemporary demands, enabling teachers to be efficient mediators in the process of knowledge construction and lifelong learning.

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