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A School Selfie: digital competences and interaction with students during emergency remote teaching

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Abstract

During the COVID-19 pandemic, schools offered what became known as "emergency remote teaching". However, teachers, students, school leaders, and parents were naturally unprepared to teach and study at a distance. This article aims to evaluate the support offered to students during the pandemic in a school in the city of São Paulo (Brazil). A mixed-approach case study used as a theoretical reference DigCompOrg, a framework for assessing digital competence developed by the European Commission. Teachers, school leaders, and students answered a DigCompOrg-based questionnaire (SELFIE), some of which were later selected to participate in interviews and focus groups. The research also involved document analysis and participant observation. The results indicated that the school offered adequate support to students, parents, and teachers. However, some challenges were identified, such as communication with families, timely feedback, assessment at a distance, and plagiarism. The research results may enhance the development of a plan to improve student support in the school.

Keywords: distance education, pandemic, teaching practice, parent-school relationship, communication strategies.

1 Introduction

The theme of this article is the support offered to students during the covid-19 pandemic. Teachers, students, school leaders, and parents were naturally not prepared for the sudden change from face-to-face to what became known as "emergency remote teaching" in March 2020.

This study aims to evaluate the support offered to students during the pandemic in a private school in the city of São Paulo (Brazil). The article seeks to answer the following questions: what types of support did the school offer its students during the covid-19 pandemic? What was the perception of this support by the students, teachers, and school leaders? What action plan can be elaborated on considering the research results, aiming to improve student support in schools?

The research is justified due to the continuous incorporation of technologies into education, including blended and distance learning, besides the importance of studying this period in K-12 education, since practically all countries went through the same problems during the covid-19 pandemic, so presenting and analyzing data in different countries may contribute to international comparative studies.

This introduction is followed by presenting the theoretical framework adopted by the research and the results of a literature review. The following sections outline the methodology used in the study and analyze the quantitative and qualitative data collected. These results are then discussed according to the theoretical framework and the literature review. The conclusion identifies elements for the elaboration of an action plan to improve student support in schools.

2 Theoretical background and literature review

This section is divided into two subsections: the theoretical background adopted by the research and the results of a literature review on student support during the covid-19 pandemic.

2.1 Theoretical background

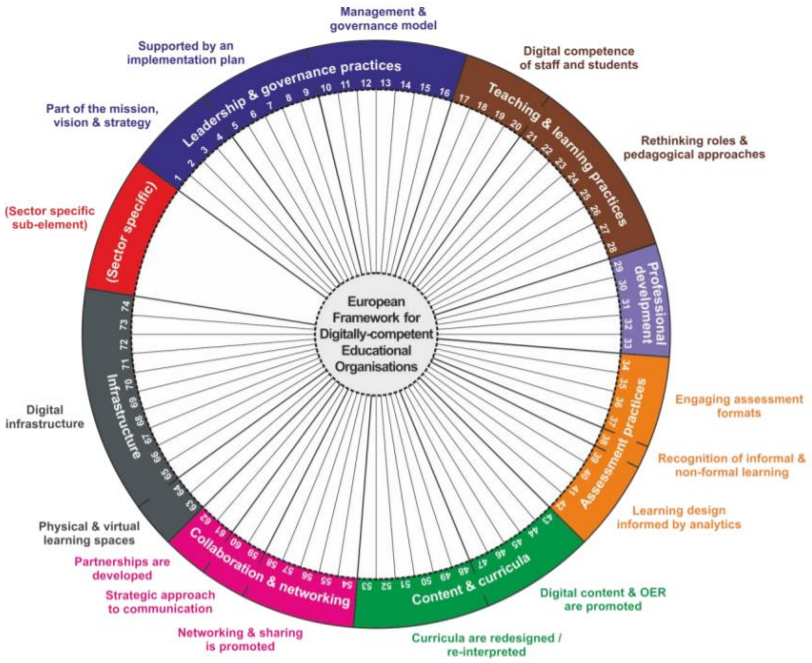
This theoretical background subsection includes the following parts: a digital competence framework, theories of distance education, student support approaches, and the concept of emergency remote teaching.

2.1.1 Digital competences

DigCompOrg (Kampylis et al., 2015) is a conceptual framework developed by the Joint Research Centre (JRC) of the European Commission for integrating and assessing digital learning technologies in educational organizations. It includes seven key elements: leadership and governance practices; teaching and learning practices; professional development; assessment practices; content and curricula; collaboration and networking; and infrastructure. These elements are divided into fifteen sub-elements and include 74 descriptors, with the possibility of adding sector-specific elements and sub-elements (Figure 1).

Figure 1 : DigCompOrg framework.

Kampylis et al. (2015, p. 5).



DigCompOrg encompasses the following activities, among several others: learning support activities by educational organizations; rich, personalized, and meaningful feedback to students; and formative, summative, and non-formal assessments, including e-portfolios, self and peer-assessment.

The European Commission has also produced a questionnaire for evaluating the digital competence of schools, based on DigCompOrg descriptors, called SELFIE (Self-reflection on Effective Learning by Fostering Innovation through Educational Technologies).

2.1.2 Theories of Distance Education

Moore's classical editorial (1989) discussed three types of interaction in distance education (DE): learner-instructor, learner-learner, and learner-content. Thurmond (2003) identified that the most significant predictor of students' outcomes is their perceptions of the interaction with instructors. Yacci (2000) emphasizes the importance of instructor feedback: there is a right or maximum timing for a response, and delayed feedback may cause adverse effects.

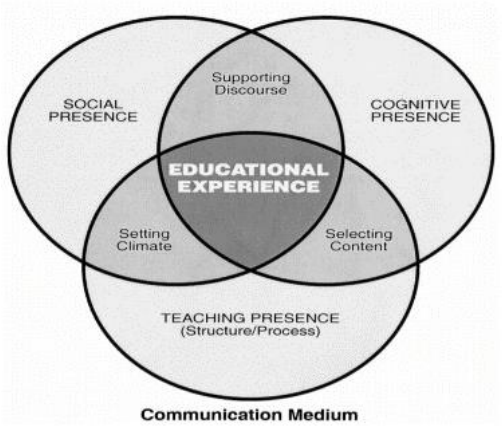
Moore (1993) also developed one of the most mentioned theories when studying distance education: the theory of transactional distance. In DE, the separation between teachers and students considerably affects the teaching and learning process. From this physical distance, a new pedagogical and psychological "space" arises, in which a different form of communication occurs compared to traditional and face-to-face education, a new "transaction". Moore calls this new space "transactional distance".

Three pedagogical variables directly affect the transactional distance: the dialogue between students and instructors, the structure of educational programs, and the nature and degree of student autonomy. The greater the dialogue and interaction between participants in the teaching and learning process, the lower the transactional distance. Among the processes that can be structured in distance education programs, we

highlight support for students' motivation. Distance education programs can be evaluated according to how much autonomy they provide to the students.

Garrison et al. (2000) introduced a model that became a reference in studies on distance education: COI — Community of Inquiry, which includes three essential elements for an educational transaction: cognitive presence, social presence, and teaching presence (Figure 2).

Figure 2: Elements of an educational experience according to the COI model.
https://coi.athabascau.ca/coi-model/



Cognitive presence represents the extent to which participants in a specific configuration of a research community can build meaning through sustained communication. The social presence represents the ability of participants in a research community to project their characteristics into the community, presenting themselves to the other participants as "real people". Teaching presence consists of two general functions: the design of the educational experience and the facilitation of learning. The goal of teaching presence is to support and improve social and cognitive presences to obtain educational results. Cognitive presence is more easily maintained when a significant degree of social presence has been established.

Jézégou (2010) reviews the COI model, proposing two dimensions besides cognitive presence: socio-affective presence and pedagogic presence.

2.1.3 Student Support in Distance Education

Brindley (2014) overviews the limited but rich amount of research available on learner support in online learning compared to other fields in distance education and points to future work. According to Brindley (2014):

> Distance learners are expected to plan their academic programs, set their study schedules, balance their studies with other responsibilities (work/family), communicate proficiently in writing, find and use learning resources well, and read and synthesize efficiently. (…) studying at a distance requires maturity, a high level of motivation, capacity to multi-task, goaldirectedness, and the ability to work independently and cooperatively. (p. 287).

Some of the objectives of learner support services are to reduce the transactional distance between learners and institutions and assist learners in working with greater autonomy. In this sense, student support services should embrace technical support; library services, including support for digital competences; psychological support; and guidance for the development of learning communities.

Educational institutions and schools need to provide support for students to acquire the described critical skills, but this involves an evaluation of the cost/benefit ratio. So, although qualified professionals may provide these services, they are often, at least partially, provided by teachers themselves. Satisfaction surveys are used to measure the quality of the services offered and to identify unmet needs.

2.1.4 Emergency Remote Teaching

Hodges et al. (2020), days after the quick shift from face-to-face to distance teaching still back in March 2020, carefully built a concept that became a reference to discuss what happened to education during the covid-19 pandemic: emergency remote teaching (ERT). Contrasted to ERT, high-quality distance education is systematically planned and designed.

One of the planned aspects of distance education is infrastructure, which involves "an investment in an ecosystem of learner supports". So, one of the questions to ask an educational organization after the covid-19 pandemic is if its technology infrastructure was adequate.

Faculty and learner support teams also play an essential role in distance education. In ERT, however, these teams' capacity was stressed, and they could not offer the same level of quality support. The main objective, in this case, was to offer enough support to guarantee the continuity of the teaching and learning process. So, another question to be asked to an educational organization after the covid-19 pandemic is if the support staff could handle the needs of students, teachers, and parents to maintain the process of teaching and learning working.

Distance education planning also involves interaction design and willingness to build a social online learning community. Teacher and peers' feedback is essential for that objective. Furthermore, while adults might benefit from asynchronous activities and interactions, younger students might require more synchronous activities and interactions.

2.2 Literature Review

A scoping literature review was conducted to identify the difficulties and challenges faced by teachers, students, school leaders, and parents in the transition from face-to-face education to emergency remote teaching/distance education. For articles, a search on Scopus and Web of Science databases was performed on May 5th, 2021. The search string used was:

(Covid OR pandemic) and (education OR teaching OR learning)

The time restriction was set to 2020 and 2021. Languages were restricted to English, Spanish, Portuguese, and French. Web of Science, with choice for subject areas Education, Educational_Research, and Business/Economics returned 727 results. Scopus, with choices for subject areas Social Sciences; Business, Management and Accounting; Psychology; and Arts & Humanities, publication stage final, published in

journals, returned 1,069 results. The selection criteria application, including discussing student support in K-12 education, resulted in six articles (Table 1).

Table 1 : Articles included in the literature review.

Reference	Country	Participants	Quantity
Daniela et al. (2021)	Latvia	parents of 1st to 12th graders children	738
Demir and Demir (2021)	Turkey	parents of elementary or secondary schools students	709
Korlat et al. (2021)	Austria	secondary school students	19,190
Lau & Lee (2021)	Hong Kong	kindergarten and primary school students	6,702
Pelikan et al. (2021)	Austria	secondary school students	2.652
Yates et al. (2020)	New Zealand	high school students	1,975

Students at Pelikan et al. (2021) study pointed to the lack of social support and direct contact with teachers and peers for developing skills and even their well-being, besides waiting for answers. The need for support included: maintaining motivation and self-discipline, regulating their learning and staying organized in their tasks, dealing with the digital learning environment and issues related to an Internet connection. Some students referred to "feeling left alone with the material" (p. 405) and not finding help from their parents. Students in Demir and Demir (2021) study also indicated the need for support from their parents, and in Yates et al. (2020) study, they were unable to find the motivation to study. Korlat et al. (2021) found a negative relationship between age and perceived teacher support, and girls reported higher perceived teacher support than boys.

Yates et al. (2020) mention supportive pedagogies to deal with student motivation issues, provide emotional support, and develop students' autonomy:

> Supportive pedagogies included clear instructions, guidance on managing time, empathetic, well-managed discussions, multiple ways of checking learning progress, multimedia resources, fun collaborative activities, authentic experiences, and providing a structure that encouraged motivation while also giving flexibility. (p. 18).

Parents on Daniela et al. (2021) and Lau and Lee (2021) studies indicated the need for more pedagogical support from educators and schools to support their childrens' learning process, besides more interactive activities. Lau and Lee (2021) also point out that low-income families may require more support due to

lower levels of digital competence. Parents on Demir and Demir (2021) study, however, although mentioning technical problems, indicated that enough support was received from people and institutions.

3 Methodology

This research was conducted in a private elementary school in the city of São Paulo, Brazil, which offers from kindergarten to high school to around 1,500 students.

It is applied, field, transversal, and descriptive research that uses a mixed-methods approach and an explanatory sequential design (Creswell & Clark, 2018; Creswell & Creswell, 2018), divided into two phases. The first phase involves the collection and analysis of quantitative data. The results of this analysis are then used to plan the second phase, which involves collecting and analyzing qualitative data to explain or expand the results of the first phase. The research also used the case study methodology (Yin, 2018).

The following data collection strategies and instruments were used: questionnaires, interviews, focus groups, document analysis, and participant observation. The SELFIE (Self-reflection on Effective Learning by Fostering Innovation through Educational Technologies) questionnaire (https://ec.europa.eu/education/schools-go-digital_en), developed by the European Community based on the DigCompOrg framework, was answered by eight school directors, 44 teachers and 234 students. Semi-structured interviews (Rubin & Rubin, 2012; Seidman, 2019) were conducted with some of the students chosen for convenience, two from 4th to 6th grade, two from 7th to 9th grade, and four from high school. Individual interviews were also conducted with three teachers from the 4th to the 6th grade, two teachers from the 7th to the 9th, and three from high school. In addition to the interviews, two focus groups (Krueger & Casey, 2015) were conducted from the 4th to the 6th grade with four teachers each, and from the 7th to the 9th grade with three teachers each, totaling 15 teachers. Four school leaders s were also interviewed, one from the 4th to the 6th grade, one from the 7th to the 9th grade, and two from high school. The documentary research involved the analysis of teaching plans and other documents produced by the school during the covid-19 pandemic. The observation of the online activities was carried out by one of the authors, a teacher at the school.

Quantitative data were analyzed using descriptive statistics, taking advantage of the SELFIE system that offers several chart types to visualize the results. In contrast, qualitative data were coded and categorized (Saldaña, 2016) with the support of the NVivo software.

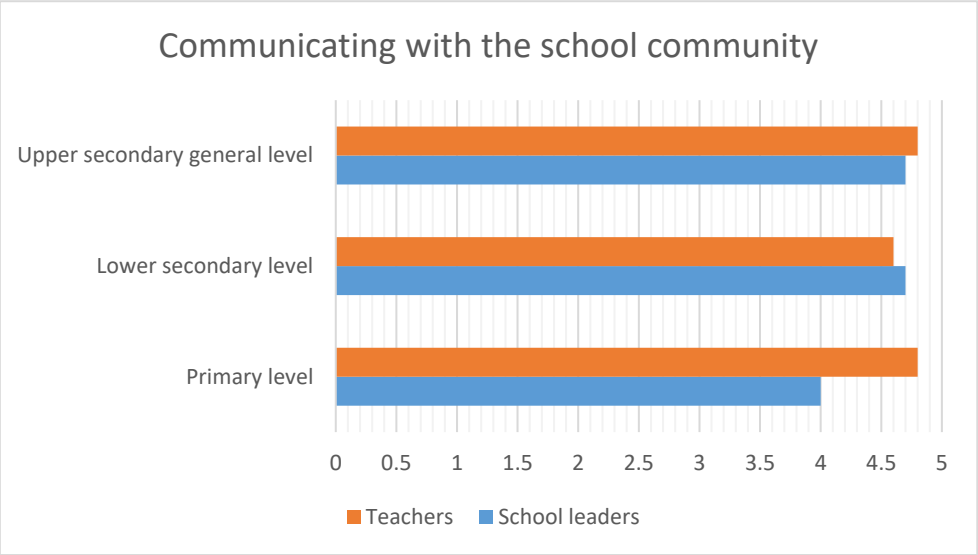
The Research Ethics Committee approved the research project at the Pontifical Catholic University of São Paulo.

4 Results

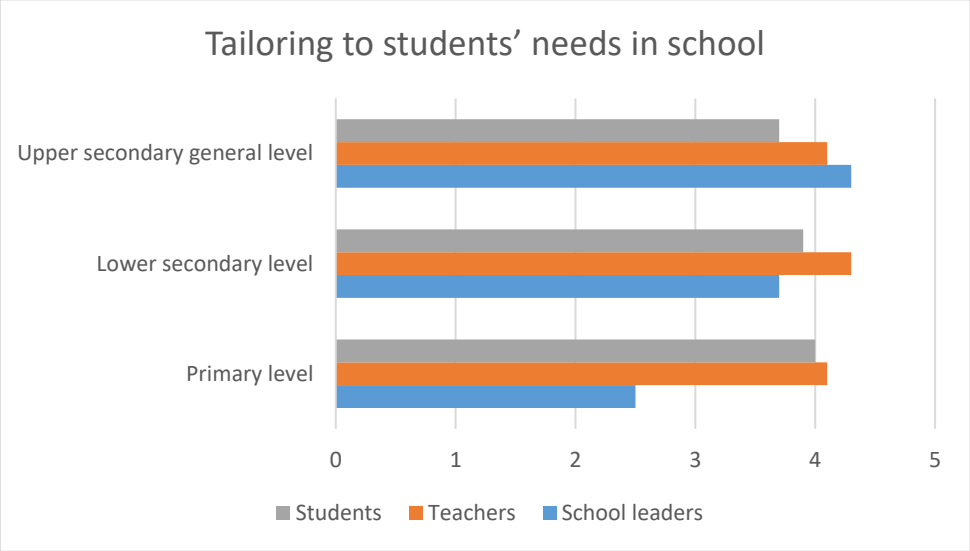
The results are presented in this section following the employed data collection methods: questionnaires, interviews, focus groups, document analysis, and participant observation.

4.1 Questionnaires

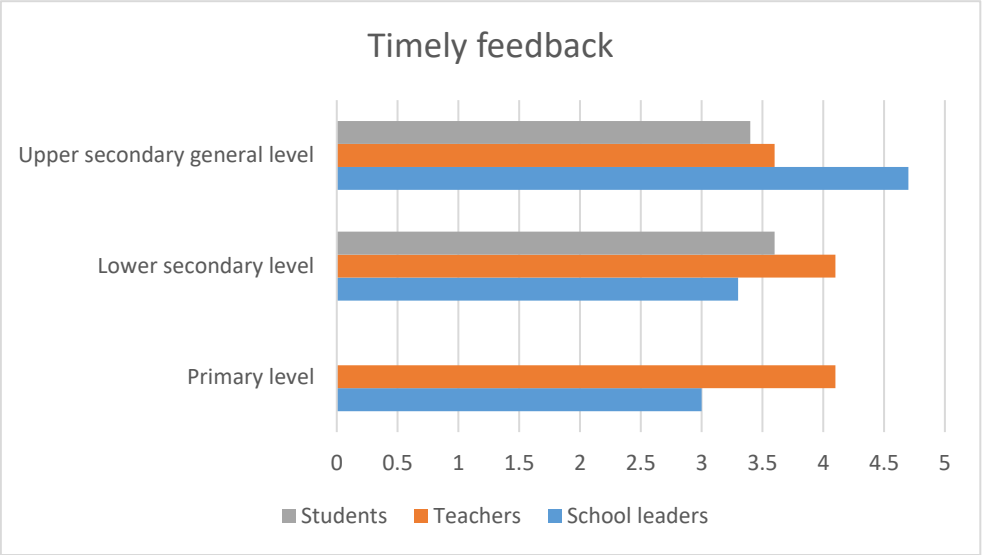
There is a more positive view of the school leaders than the teachers and students concerning the school's technological infrastructure. There is not, however, significant differences concerning the communication with the school community.



There is a difference in the respondents' perception about the adaptation to the needs of the students, specifically in the case of younger children.

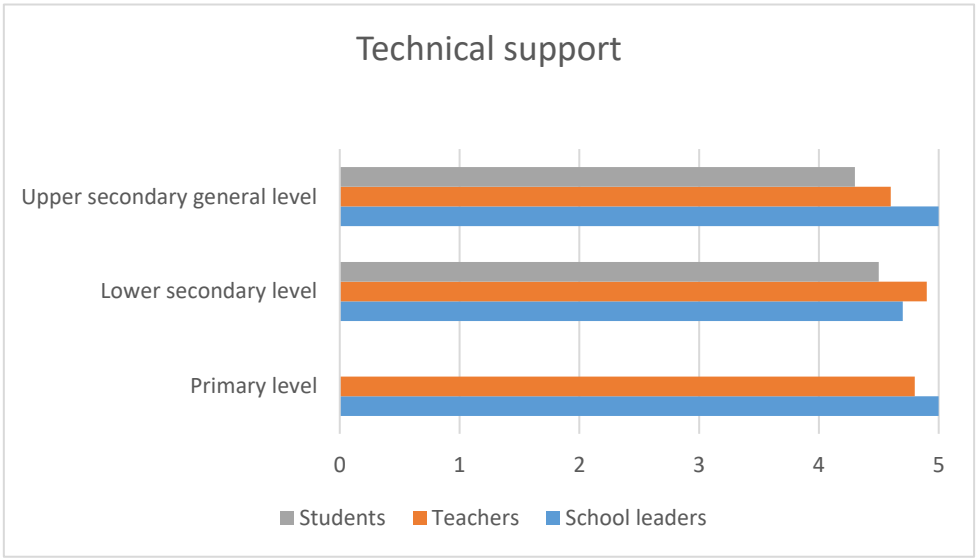


There is also a difference in the respondents' perception of timely feedback in the case of younger children. Students have a less positive perception of this issue.

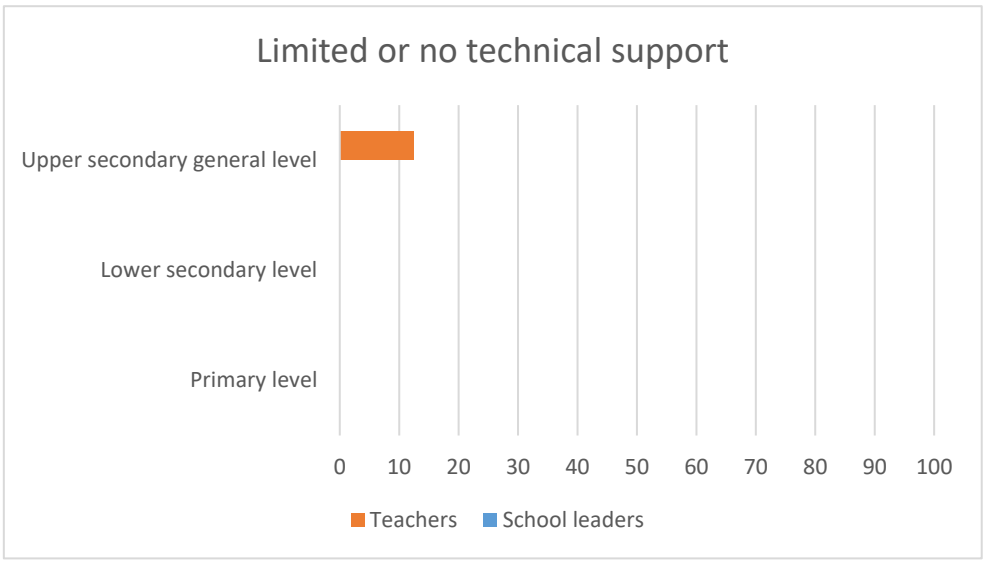


The questionnaire results showed a different perception by school leaders, teachers and students about support and interaction with students. School leaders, in general, consider that teachers do not adequately use the available technologies for this purpose. Teachers, in turn, present demands for the school. Furthermore, some teachers point to the absence of parents' help in the children's teaching and learning process, while others considered that the parents were too involved, to the point of wanting to replace the teaching function. Teachers also express their difficulties maintaining interaction with students, motivation, and engagement in an ultimate distance learning scenario. Students, in turn, point to problems in both the school and the teachers.

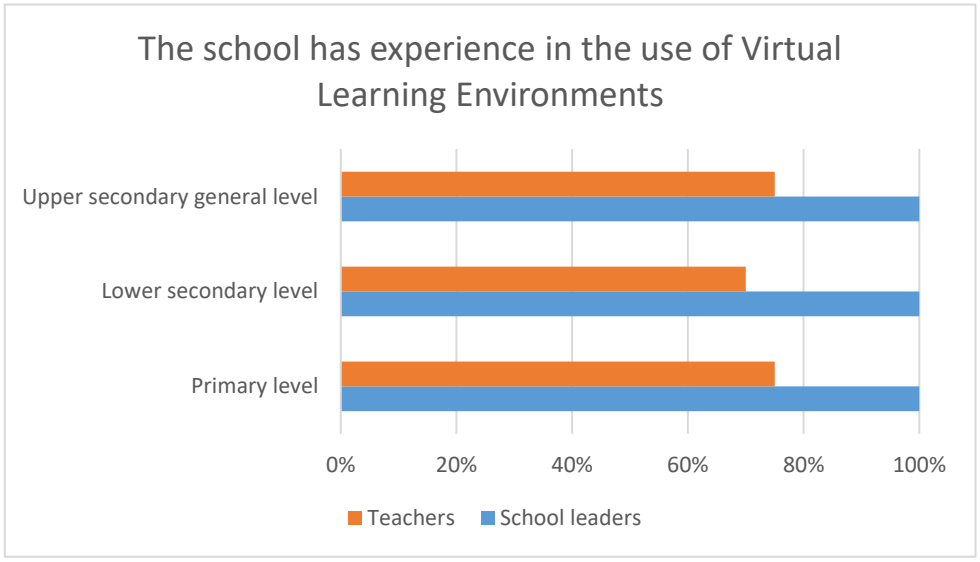
There are not many differences in the respondents' perception of the technical support provided by the school.



School leaders and teachers agree not to point out limited or insufficient technical support from the school.



One of the positive factors considered by teachers and school leaders is that the school has experience using virtual environments and well-organized access to digital resources. Moodle, already used by the school, was improved to take on the role of a virtual learning environment during the covid-19 pandemic, including communication with parents. School leaders have a more positive view of the school's experience with virtual learning environments, but the teachers' vision is also positive.



Among the factors raised as unfavorable for distance learning and teaching, the low digital competence of families was pointed out by school leaders.

It was noticed that the older the student's age group, the greater autonomy in the learning process he or she acquires. The questionnaires showed that elementary 1 students needed more support from parents and the school to carry out the activities, while elementary 2 students learned from each other or the internet. Students have greater autonomy to seek learning in high school, although they claim to be easily distracted.

Almost half of 4th to 6th graders said they needed their family's help to use software and applications. Few ask teachers for help or have internet problems. Few find help on the internet. Few claim that he has been given information on how to use digital resources. A quarter of them is distracted by using digital resources. Almost a third of students from 6th to 9th grade find help on the internet. Almost half of the 7th to 9th-grade students complain of constant distraction when using digital devices to study.

Almost no student from 6th to 9th grade knows how to use software/apps without help. Only 10.8% of students say they do not ask for help, even if they need it. Almost all students claim that no one can help them with software/apps. 20.3% claim to ask their friends for help; 20.3% claim to ask their families for help; 14.9% claim to ask their teachers or school for help to help them use the software. For 14.9% of students, they were provided with information on how to use digital devices.

More than half of high school students said they were often distracted by using digital devices to study during distance classes. More than half of them also claim to find help on the internet when studying at home. A quarter of them asks friends for help using software and apps.

A small proportion of high school students say they have been provided with information to use digital devices. Very few students said they did not ask for help, even if they needed it. No student claimed to have no one who could help them with software and apps. A small portion of them ask teachers and the school for help with software and apps. Almost none of them ask the family for help to help them with software and apps. Very few students said they did not know how to use software/apps without help.

4.2 Interviews and Focus Groups

School leaders, teachers, and students recognize the importance of Moodle as the virtual learning environment during the covid-19 and for the continuity of digital culture, as the school already used it. One student says: "The resources that helped me learn was Moodle, we used many links that could include PowerPoint and do these things, it helped us learn more […], I think Moodle, the links that we are using are very cool."

School leaders and teachers also agree that there were investments by the school during the covid-19 pandemic to maintain the quality of work, such as expanding the virtual platform's capacity and updating new resources, such as the addition of BigBlueButton that enabled videoconferences, which contributed, through the support rooms, to group work. "These resources were important to improve the quality and access to the student", says one of the school leaders.

Both school leaders and several teachers mention the importance of the role of the information technology team: "The educational community had access to an extremely qualified and available team to help this use be as efficient and productive as possible", says another school leader. One teacher adds: "The teacher of new technologies is always available, whenever we need it, I have never seen her refuse to help anyone".

There is a general belief that it is necessary to develop the students' digital competences. A teacher points out that, even though students have the competences to use technological resources in their daily lives, it is necessary to guide them in the use of technological strategies for learning. "Students are part of a generation that has great intimacy with digital technologies but do not always know how to make good use

of them to help in the learning process. They need to be guided and instructed at every step of the work on how to use it in the best way.", says one teacher. Another teacher adds: "They often access and know video games, games, but are not oriented on what is right, how to do it, how to research, how to use these strategies in favour of learning".

In this sense, the teachers noted increased plagiarism in the students' work during the covid-19 pandemic. "It is easy; it was a seduction, a temptation", says one teacher. So, there is a need for guidance. One teacher says, "when I work on the importance of authorship in the activities and make the evaluation criteria very clear, I have few questions related to this problem."

Communication with students improved during ERT. One student says: "I did not have digital communication with the teachers, but during the pandemic, the communication was effective, helped a lot, to be able to take classes and clarify our doubts and for us to learn more only in a different way."

Some students point out that technology helped them in their learning process:

> What helped me a lot were calendar apps, organization apps, which helped me a lot to organize my routine indoors and at the same time organize my study time, what I had to study, what were the classes of that day, in addition to using videoconferencing for various courses that were very interesting for learning in general.

Before the pandemic, it was not much of a habit of using Drive to make group texts in real-time. During the pandemic, this was very necessary because we could not meet, so if we needed a text for that moment, it was through Drive that we would rehear and do presentations and tests on the videoconference itself BigBlueButton, left everything more interactive and mainly favoring my learning.

The school leaders confirm that there is a concern on the part of the school regarding continuous professional development (CPD). Teachers corroborate this belief: "The school has always been concerned with continuing training in service, so we have weekly meetings with different subjects." This agreement is repeated in the evaluation of the pandemic period of covid-19, as the following statements of teachers attest: "the school always reached out to me, although it was a very troubled period, of great uncertainty, I did not feel forest in a moment" and "the greatest support was personal, of directing staff and teachers to help, we had the guidelines in meetings."

School leaders agree that not only do teachers complain about communication with families: families themselves also complain. Moreover, this got worse at the beginning of the pandemic, with families wanting answers as fast as possible and an undefinition of the ideal channel. One teacher says: "We signaled that Moodle is a unique and exclusive student-teacher space and there were where the anxieties arrived, and the ways to get an answer were long, send an e-mail or call, whom will I call"

However, school leaders make clear a commitment to parents' support. One school leader says:

> The school offered support to parents because we understand the school's effort to give the best quality of teaching to learning; it is also difficult for the father. The father was also remote, and we did not know how many devices they had. I learned from many families that they did not even have the number of computers and cell phones needed, we always think so, that they have too much, but there is always that family that does not have, and the father had to use it for his work.

4.3 Document analysis and participant observation

One of the authors is the new technologies teacher at the school, so she has access to school documents and participated in the whole process of ERT. Follows a brief narrative of some interviews with her.

Some students felt the need for support and motivation. Students missed contact with their peers more than with their teachers. There was great concern by the school about the socio-affective presence. The school hired a psychologist to support the students. He uploaded videos, and a course was created at Moodle where students could come in and talk to him through messages. In some grades, for example, in the 4th grade, the school brought a pediatrician to talk to students.

To support the students emotionally, spaces such as "virtual café" with teachers and students were created with the intention strictly of talking about how they were feeling about the pandemic, chess championships, and lives with teachers and students.

The school made investments without thinking about the return. The new technologies teacher asked for some resources, sometimes some teachers asked for something.

Even used as a repository, Moodle helped the previous school culture. Younger students had more difficulties with Moodle, and the older ones did not.

Students struggled but progressed. Teachers encouraged autonomy, even among parents. Younger students needed more support from their parents; some parents collaborated more. The students surprised us by incorporating new tools into their learning process. The school was successful regarding students. Many entered colleges, including the University of Sao Paulo, a University in China. This was the year in which more students entered universities.

The school did not apply satisfaction surveys.

There was no intention to create communities, perhaps because they are children.

Feedback was a complaint even before the pandemic. However, there were no complaints about lack of interactive activities; teachers tried to diversify to the maximum. There was much exchange among teachers. A course was offered at Moodle for teachers, including h5p and online meetings, WhatsApp was even used. Most of the activities were held at Moodle, without many activities proposed outside the virtual learning environment, exceptions made to younger students. Textbooks were used in all series, which students took at home.

With the simultaneous online classes using The BigBlueButton, it was possible to reduce the teacher/student distance, it was possible to maintain a dialogue, teachers could create support rooms with smaller groups, and some students asked to stay after class to talk to teachers because they felt the need to be heard, this was a very present concern, affective action.

The technical support team used a corporate phone and a school radio. Many students' questions were answered this way. Students had enough technical support, facing no difficulties with computers, Moodle, etc.

The library was left open during the pandemic. Parents and students could pick up resources at the reception. Librarians had no role during ERT, and did not provide information literacy support.

Concerning communication between school and family, the school remained closed early on and for a long time. The means of communication disclosed to parents was e-mail. It did not work very well; the parents complained about the delay in response. Soon we had a corporate phone for that communication.
Parents' digital competences varied. This is an upper-middle-class school.

5 Discussion

Although Hodges et al. (2020) argue that the support teams' capacity tended to be stressed in ERT, the school invested during the covid-19 pandemic to maintain the quality of the teaching and learning process without considering the relationship cost/benefit.
School leaders, teachers, students, and even parents recognize the critical role played by Moodle as a virtual learning environment during the covid-19 pandemic, symbolizing the continuity of the school's digital culture.
Yacci (2000) calls attention to the importance of instructor feedback. This was a problem for the school even before the pandemic, but teachers tried to offer different types of feedback using different pedagogic strategies, resources, and channels, which seems to have worked.
As Moore (1993) argues, the nature and degree of student autonomy affect the transactional distance. One of the objectives of learner support services is to reduce the transactional distance between learners and institutions and assist learners in working with greater autonomy. The case study identified more autonomy in older students, with younger ones needing more support from parents, teachers, and the school. The school and teachers face a challenge to adapt to the needs of younger students, who face more difficulties during the pandemic. This echoes the studies of Daniela et al. (2021) and Lau and Lee (2021).
The pedagogic presence proposed by Jézégou (2010) can be developed through supportive pedagogies (Yates et al., 2020), which teachers in the school somehow offered. The case study did not identify problems with social presence to the same degree as in the study of Pelikan et al. (2021), where some students felt left alone with the material.
Moore (1993) also argues that the greater the dialogue and interaction between participants in the teaching and learning process, the lower the transactional distance. The school teachers expressed difficulties maintaining interaction with students during the covid-19 pandemic, but supportive pedagogies and resources, such as BigBlueButton, were used to reduce the transactional distance.
It was also possible to identify challenges to keeping a socio-affective presence (Jézégou, 2010) during the covid-19 pandemic in the school. Some students felt the need for support and even motivation. To support the students socially and emotionally, virtual spaces were created.
Considering the answers to the questionnaires, interviews, and focus groups, it was possible to identify that communication, both internal (with teachers and especially students) and external (with parents), is a challenge faced by the school.
Parents of Daniela et al. (2021) and Lau and Lee (2021) requested more pedagogical support from teachers and schools to support their children's learning process. Belbin (2010 apud Brindley, 2014) note that "students have come to expect higher levels of customer service: 24/7 online technical support, a twenty-

four-hour turnaround on e-mail inquiries, immediate response self-directed services, and an online 'two-click rule' to locate service and obtain a quick response" (p. 226). The same can be said about parents, especially during the covid-19 pandemic.

However, as parents in Demir and Demir (2021) study indicated that enough support was received, the school studied was concerned both with teachers' professional development and committed to parents' support.

School leaders pointed to the low digital competence of families as a problem during the covid-19 pandemic. Lau and Lee (2021) call attention to the fact that low-income families may require additional support, as they might have lower levels of digital competence. It is essential to highlight that the families of the school studied are upper-middle-class, which can explain, at least partially, the success during the covid-19 pandemic.

The research results indicated a different perception by school leaders, teachers and students about support and interaction with students. However, differences were not noted in the perception of technical support provided.

6 Conclusion

This article presented and discussed the results of field research in a private school in the city of São Paulo (Brasil) to study the support offered to students during the covid-19 pandemic. There was no time to design support for students in emergency remote teaching, but this did not generate many problems due to the school's investments, the prior face-to-face established community and the support team's efforts. Overall, the schools and their teachers offered quality support for students and parents during this period.

It is essential to highlight the discrepancy between Brazilian private and public primary schools. Most Brazilian students study in public schools that do not have the resources described since it is a private school. The development of digital skills (teachers, managers, students, and parents) seems to be one of the main points to achieve more significant and successful support for the student. However, let us consider the Brazilian context and what was seen in part of the international literature review, in addition to digital skills. It is necessary to invest in access to quality internet and equipment.

One of the questions proposed by this article was: what action plan can be elaborated taking into consideration the research results, aiming to improve student support in schools? Some suggestions for the plan might be: improve communication with students and parents; develop the digital competences of students, teachers, and parents; and offer quality feedback to students to reduce transactional distance and increase socio-affective presence.

As Yates et al. (2020) argue, the covid-19 pandemic can inform new pedagogies for the future:

> Despite the necessitated rush to put learning online, there may be opportunities and possibilities that arise. Disruption to education is not limited to pandemics, natural disasters such as earthquakes, wars, and civil conflicts can also interrupt schooling. We need to know how to serve students better during such disruptions and what we learn from the Covid-19 situation could inform schooling in the future. (p. 5).

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