CHANGES IN TEACHING METHODS DURING THE COVID-19 PANDEMIC IN ROMANIA

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Abstract

Objectives. During the COVID-19 pandemic, numerous measures have been taken worldwide, and, in this context, teachers were put in a position to adapt teaching to the virtual space and learn the ways of online teaching on the go. The aim of this study was to answer the question: What were the main online teaching methods currently used by Romanian pre-university teachers during the COVID-19 pandemic?
Material and methods. The research methodology used was the focus group. Between September 9 and 11, 2021, four focus groups were held online with 18 teachers from pre-university education in Romania.
Results. Most of the teachers had mixed assessments of online teaching during the COVID-19 pandemic. Teachers identified several types of problems they faced during this pandemic. In terms of technical difficulties, they talked about the lack of appropriate technology or the existence of problems related to the Internet connection. From the perspective of social difficulties, they mentioned new types of relationships among teacher, child, and parent and the emergence of new social roles for the child and parent in the educational process.
Conclusions. This study shows that there were numerous challenges faced by Romanian teachers during the COVID-19 pandemic. Teachers had to adapt to the new challenges and develop a skill set required in online teaching: learning to creatively use digital tools; more efficient use of already existing online teaching platforms; attending training courses to refine the social and psychological skills needed in online interactions with students.

Keywords: COVID-19 pandemic, online teaching methods, digital tools, online teaching platforms, online skills and competencies.

Introduction

According to data published by EUROSTAT (EUROSTAT, 2020), school closures due to the COVID-19 pandemic affected a total of approximately 76.2 million pupils and students: 15.7

million children (up to 5 years) in early childhood education, 24.5 million pupils (5-7 years) enrolled in primary education, and 36 million students (10-16 years) in secondary education.

From the perspective of the internal difficulties of the educational process during the two years of the COVID-19 pandemic, in 2021, the Romanian Ministry of Education estimated that over 4400 teachers did not have digital devices and/or access to the internet (Ministerul Educației, 2021). The Ministry of Education also mentioned as other problems the lack of digital devices through which students and teachers can access online courses, the lack of privacy during online classes because students had to share the work space with their parents and/or siblings and teachers/teachers with their children or other family members; and the lack of a national e-learning platform (Ministerul Educației, 2021).

The research question of this article was: What were the main obstacles faced by Romanian pre-university teachers during the COVID-19 pandemic?

The theoretical framework

The assessment of the impact of online education from the COVID-19 pandemic on the main educational actors must be seen not only from the perspective of these urgent adaptations to the new reality but also from a broader point of view that concerns the consideration of digital as a major source and powerful driver of innovation and current economic growth. It redraws the value chains of entire production sectors. Finally, and above all, it is a central vector of knowledge and culture (Boissière & Bruillard, 2021; Grimault-Leprince, 2023). Regarding online education, the researchers found that it has traditionally been viewed as an alternative pathway, particularly suitable for adult learners seeking opportunities in higher education. However, the emergence of the COVID-19 pandemic required educators and students at all levels of education to quickly adapt to virtual courses (Lockee, 2021; Xianghan & Stern, 2022). Teachers' attitudes towards the use of digital tools in education were a rather sparsely researched topic in the pre-pandemic period. However, there were studies that revealed a wide range of opinions towards the use of ICT in the classroom in the Czech Republic, Germany, and Norway. The respondents were divided into five categories, starting with the group of enthusiasts and ending with teachers who reject ICT. The largest group was made up of enthusiastic teachers. These results regarding the perceptions of the use of digital tools in education were not confirmed by subsequent research during the pandemic and post-pandemic periods (Eickelmann & Vennemann, 2017; Gleisner Villasmil, Lindvall, Sund, & Sert, 2023; Lomos, Luyten, & Tieck, 2023). Thus, between June and September 2020, the European Commission launched a public consultation on the impact of COVID-19 on education and training, on the related shift to distance and online learning, and on their vision of the future of digital education in Europe. The public consultation revealed that around 60% of respondents had not used distance and online learning tools before the crisis. Although this survey was carried out based on the consultation of a wide range of citizens, not only with actors from the educational environment, it can still be taken into account because, in the context of the health crisis, the whole society mobilized with the aim of intervening and supporting the urgent transition process to online education (Planul de acțiune pentru educația digitală (2021-2027), 2020).

The COVID-19 pandemic has affected more than 1.5 billion pupils and students in 165 countries. Distance education was seen as the only alternative to ensure pedagogical continuity. This situation has led to many difficulties, in particular the lack of direct contact, technical problems, and connection difficulties. In addition, many teachers felt that they did not have sufficient skills in the field of digital technologies (Legros, 2021). Authors who have studied the rapid transition to the

digital sphere during periods of school closures have highlighted major differences in terms of access to digital technologies, depending on the income level of countries, but also in terms of the situation of different social groups within countries (Husamah, Suwono, Nur, & Dharmawan, 2022; Zancajo, Verger, & Bolea, 2022).

An extensive online education opinion survey was conducted in India, with both teachers and pupils/students participating. Most of the answers are in favor of traditional learning. The researchers hypothesized that this result was due to the unprecedented circumstances and the lack of preparation of teachers and students for the transition to online distance education (Selvaraj, Radhin, Nithin, Benson, & Mathew, 2021). Another research conducted in China assessed the attitudes of 892 teachers towards online learning using learning environment, need gratification, mental engagement, and behavior as predictors. Structural equation modeling was used to explore the relationship between these four dimensions during these teachers' participation in an online learning program. Results reveal significant correlations between learning environment, need gratification, mental engagement, and behavior (Mo, Minjuan, Yulu, & Hai, 2021).

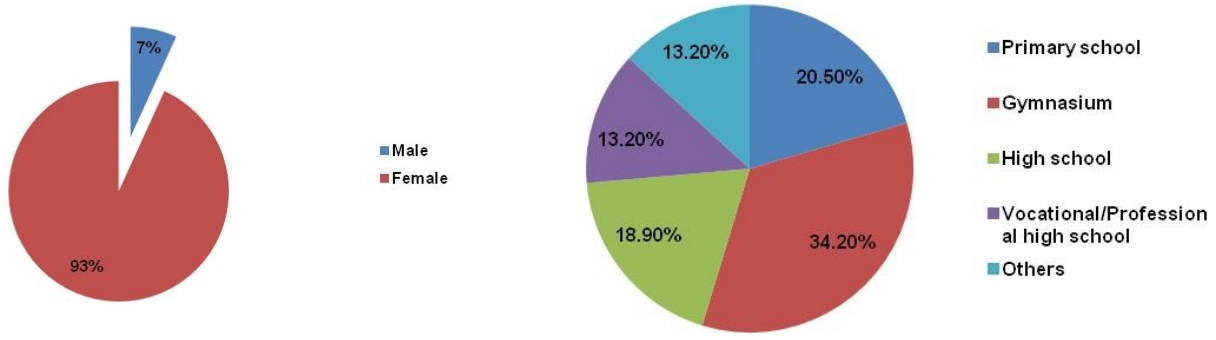
Material and Methods

To answer the previous research question, this study will present an analysis of data resulting from an ERASMUS+ project ("DigiTeaL" or "Digital Teaching Literacy") running in 2021-2022 over 18 months. The University of Bucharest is a partner in the project, along with the University of Wolverhampton (Great Britain) and the non-governmental organizations Demokritos (Cyprus), Emphasis (Greece), and Beno (Germany).

In the first stage of the project, an opinion survey was conducted with teachers from the pre-university education system in Romania and the Republic of Moldova. The sample of respondents had a volume of 164 people, and the data collection period was July 27–September 13, 2021.

From the point of view of the sample structure, the data indicate a majority percentage of female teachers (93.2%) among the respondents (see Figure 1). At the same time, more than half of the survey participants work in primary and secondary education.

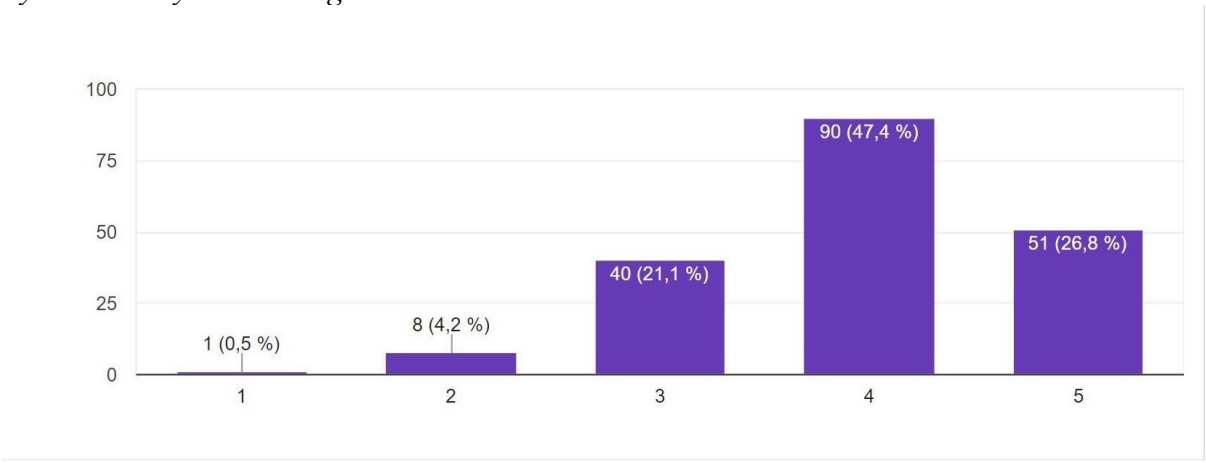
Figure 1.
Sample structure



Results

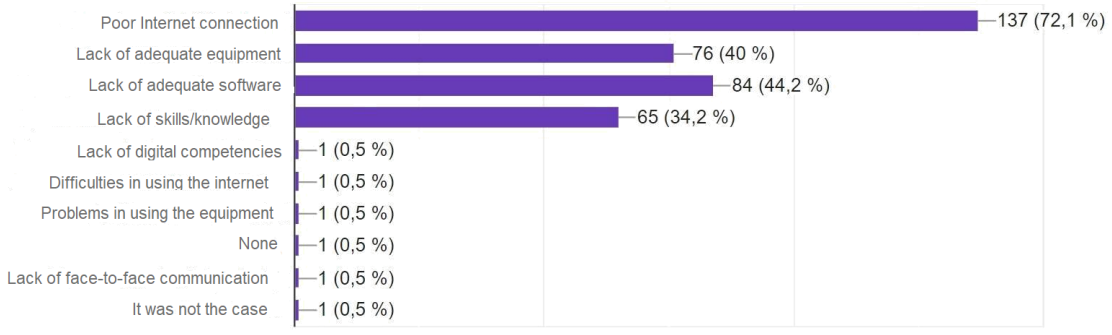
According to the data collected through the online survey regarding the confidence related to their own digital skills, most teachers declared themselves "confident" (47.4%) and "very confident" (26.8%) in relation to teaching online lessons (see Figure 2).

Figure 2.
Safety related to your own digital skills



"Poor internet connection" (72.1%), "lack of special software for online lessons" (44.2%), "lack of appropriate equipment" (40%), and "lack of skills/knowledge needed for online lessons" (34.2%) were the main problems facing pre-university teachers included in the sample (see Figure 3).

Figure 3.
Difficulties encountered while teaching online lessons



Regarding the online teaching platforms used by the schools where the respondents worked in relation to the teaching platforms they actually used during online classes, the results indicate that they largely overlapped due to access offered to teachers by the "Google Classroom" and "Microsoft Teams" suites (see Figures 4 and 5).

Figure 4.
The online teaching platform used by the institution where it operates

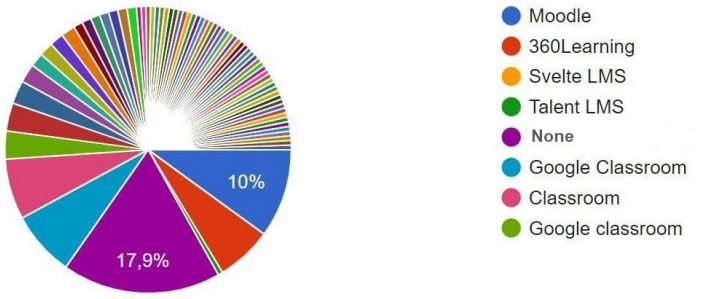
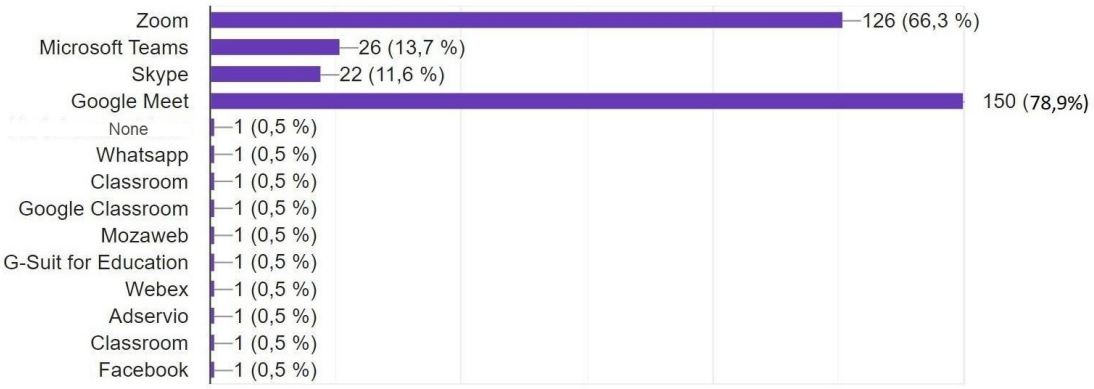


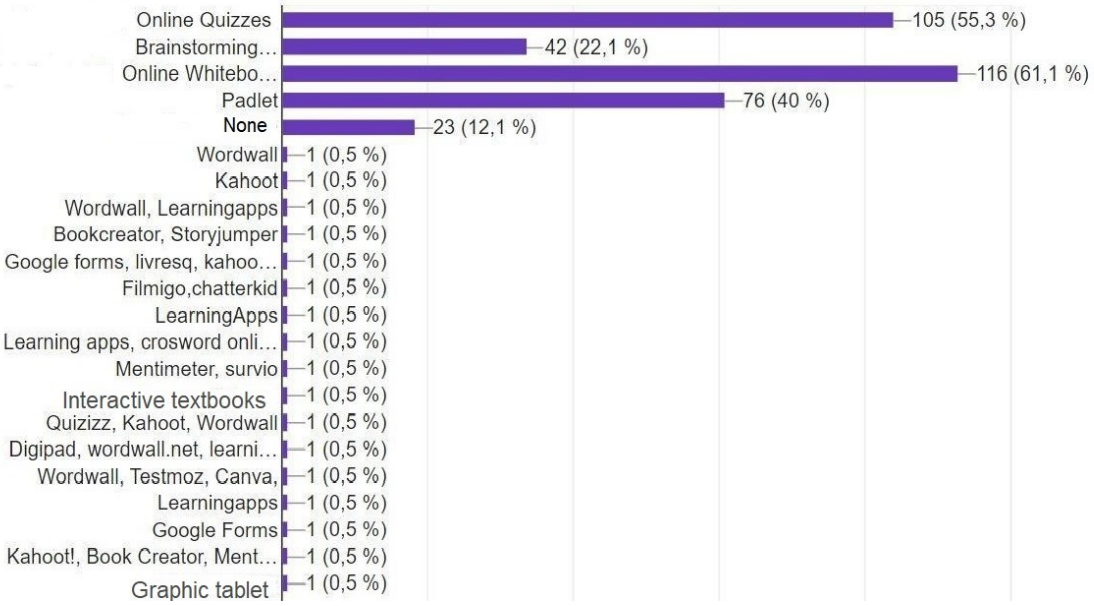
Figure 5.
Online teaching platform used for online lessons



An interesting aspect was the fact that 17.9% of the teachers declared that no teaching platform was used in the institution where they worked (see Figure 4), although, according to their statements, only 0.5% said that they did not use any online teaching platform during the pandemic (see Figure 5). A possible explanation for this difference lies in the fact that most of the questioned teachers acted independently in relation to the institutions, assuming the continuation of the didactic process by their own forces.

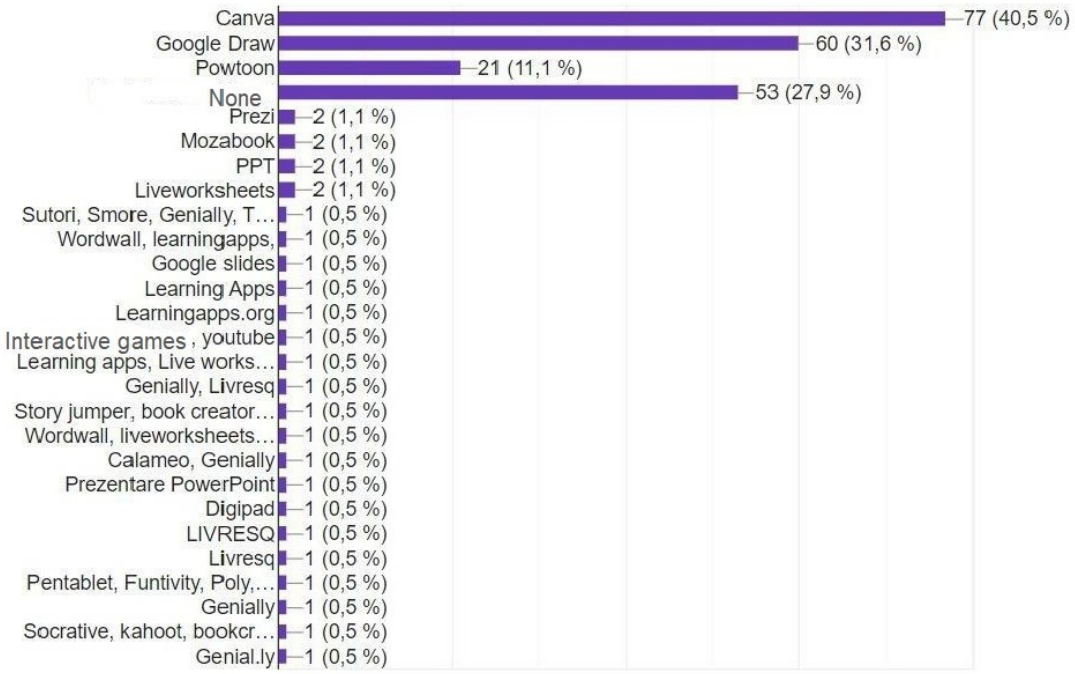
The period of the pandemic also represented an opportunity for IT companies to develop and refine a series of programs (software) and applications for teaching online lessons. Along with the previously mentioned platforms ("Google Classoroom" and "Microsoft Teams") for teaching online lessons, teachers used "Zoom" (66.3%) and "Skype" (11.6%) (see Figure 5). According to the data collected in this study, in order to increase the degree of interaction with students, teachers used platforms such as "Online Whiteboard" (which is actually part of the "Google Classroom" suite) (61.1%), "Quizz Online" (55.3%), "Mind Maps" (22.1%), and "Padlet" (12.1%) (see Figure 6).

Figure 6.
Online teaching platform used to increase the degree of interaction with students



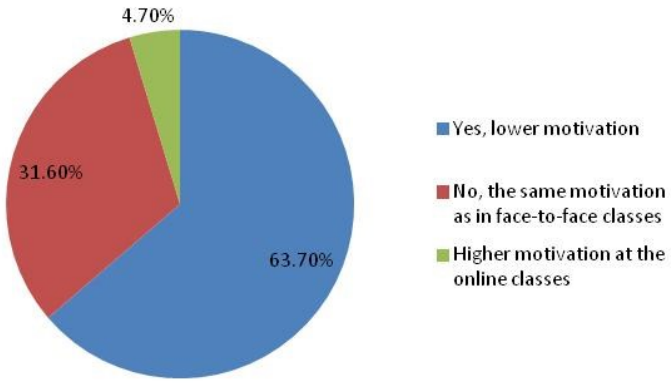
"Canva" (40.5%), "Google Draw" (also part of the "Google Classroom" suite) (31.6%), and "Powtoon" (11.1%) were the online platforms used to create attractive content for online classes (see Figure 7).

Figure 7.
Online teaching platform used to create engaging content for online classes



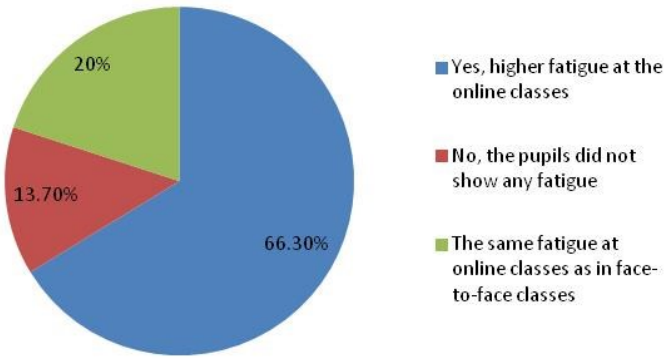
The period of the pandemic also represented a challenge that students had to face: the transition from classic education, based on face-to-face interaction, to online classes also brought a series of negative elements in terms of the behavior of the beneficiaries of the educational process (students). Thus, according to the data set analyzed, a percentage of 63.7% of teachers appreciated that there was a decrease in student motivation during online classes, and only 31.6% claimed that this motivation remained unchanged (see Figure 8).

Figure 8.
The existence of problems related to student motivation during online classes



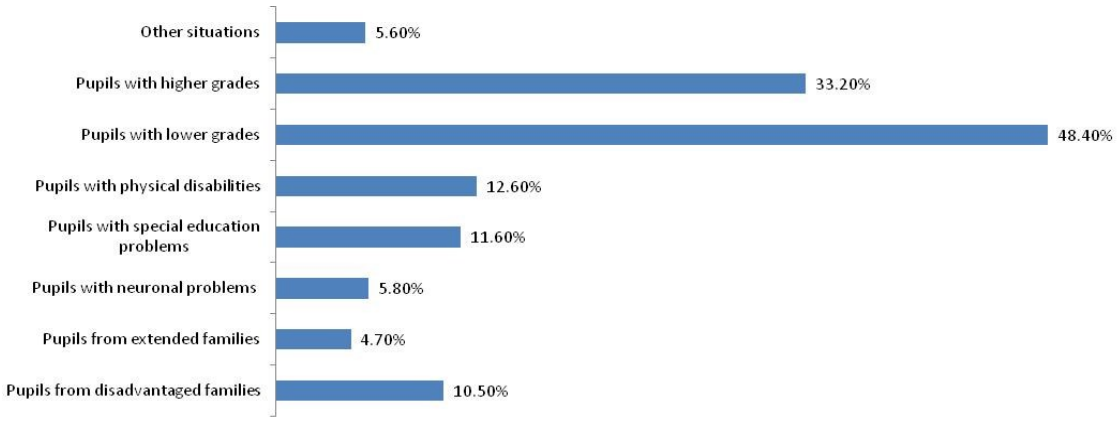
A significant percentage of teachers (66.3%) declared that digital fatigue also appeared during online classes, with the percentage of those who claimed that it did not manifest itself being significantly lower (13.7%) (see Figure 9).

Figure 9.
Issues related to student fatigue during online classes



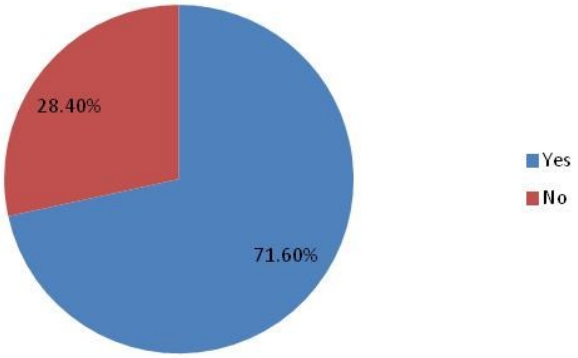
Regarding the comparison between online and face-to-face lessons, the teachers included in the analyzed sample declared that online education benefited students who previously had poor results (48.4%), students from disadvantaged families (10.5%), those with special educational needs (11.6%), and students with physical disabilities (12.6%) (see Figure 10).

Figure 10.
Comparison of online and face-to-face lessons for students



Most of the teachers surveyed online (71.6%) were aware of GDPR provisions (see Figure 11).

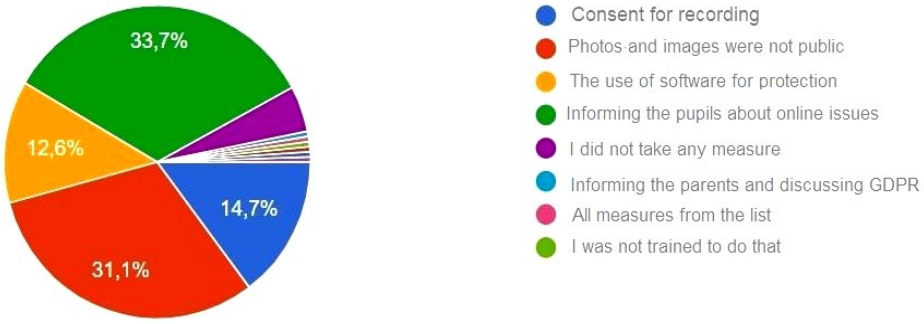
Figure 11.
Knowledge of GDPR provisions



In this context, the measures taken to protect students' private lives and intimacy during online classes were extremely diverse: requesting and obtaining consent to record classes, protecting

students' identities, and informing students about the risks associated with their online activity (see Figure 12).

Figure 12.
Measures taken to protect students' privacy/intimacy while teaching classes online



At the same time, teachers had to take a series of measures to avoid interrupting online classes by people from outside the class, including introducing a password for access to online classes, verifying the identity of the people participating before the start of the class, and maintaining the private nature of the access link at class time (see Figure 13).

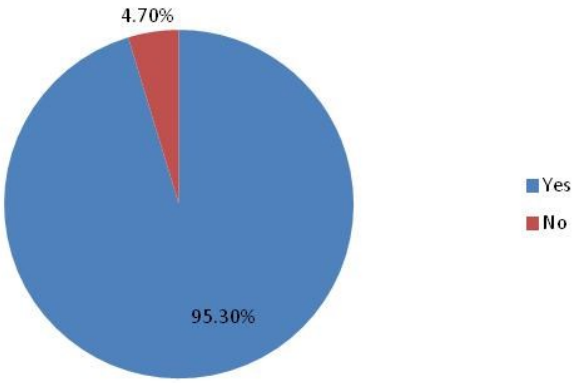
Figure 13.
Measures taken to avoid disruption of online classes by people outside the classroom

Changing security settings, using the cyberbullying reporting system, and informing students about online dangers and risks were also some of the measures taken by teachers to protect students from online dangers and risks (see Figure 14).

Figure 14.
Measures taken to protect students from online dangers and risks

The new type of education (the digital one) also marked the manifestation of a new type of relationship at the level of the profession, with an extremely high percentage of the subjects included in the sample (95.3%) declaring that they exchanged advice and best practices with other colleagues (see Figure 15).

Figure 15.
Peer-to-peer support: tips and best practices



Discussions and Conclusions

The results of the online survey conducted within the "DigiTeaL" project thus indicated that the majority of respondents were of the opinion that they too have "good" and "very good" digital skills (46.5%). The main difficulties faced by Romanian pre-university teachers online were poor internet connection (71.2%), lack of software and applications (45.3%), or lack of appropriate equipment (38.8%). About 35.5% of respondents considered the lack of digital literacy to be a problem.

Respondents faced decreased student motivation (66.3%), fatigue (66.3%), and evaluation errors, with 48.4% of respondents considering that online grades were higher compared to face-to-face classes in front of them. The majority of respondents (71.6%) were aware of the General Data

Protection Regulation (GDPR), and their responses demonstrated that most of them have taken steps to protect students' online safety. Only about 5% of them reported not taking any action to ensure the online safety of students and the teaching class.

The main problems during online teaching identified by the teachers participating in the online survey were: a decrease in students' motivation compared to the previous period (61.2%); the appearance and persistence of students' digital fatigue during online classes (67.7%); post-festum identification of student evaluation errors in the sense that 45.9% of respondents stated that the grades awarded were higher because the exam was conducted online.

At the same time, the period in which the teachers carried out the activity online during the COVID-19 pandemic indicated the existence of both positive aspects (for example, the ability of teachers and students to quickly adapt to the requirements of online education; the development of new digital skills) and some negative elements (decreasing student motivation during online lessons; the emergence of new psychological phenomena, such as digital fatigue; student evaluation errors).

As the existing literature shows (Mallillin, Mendoza, Mallillin, Felix, & Lipayon, 2020; Dos Santos, 2024), the main obstacles faced by Romanian pre-university teachers during the COVID-19 pandemic were thus professional, administrative, and psychological.

With the passing of this stage, this study concluded that new studies are needed to identify ways of supporting for the teaching staff on the horizon of the present and future economic-social crises.

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