

## **Distance learning in Primary Education in Greece in the midst of COVID-19: A pilot study**

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### **Abstract**

The present study aims at probing the views of primary school educators on the use of distance learning during the COVID-19 pandemic crisis in Greece. The survey registers the problems encountered by the educators due to their insufficient training in online teaching, the lack of equipment that they and their pupils faced, and technical problems when connecting to the distance-learning platform. The paper also describes the educators' observations regarding the effectiveness of the learning process in terms of the degree of pupil participation, the percentage of material covered, and homework assignments. Furthermore, they present their experience in connection to the role that parents played in online teaching and their communication with them. Finally, they express their views on whether and how it might be possible to implement the learning process differently during the period of mandatory school shut-down because of the pandemic.

### **Introduction**

The universal application of distance learning to all levels of education due to COVID-19 has been a worldwide fact and a worldwide necessity during the 2020-2021 school year. The learning process in education had to be transformed as educators, students and parents had to learn to cooperate on a new basis, different from the traditional one (Ng & Renshaw, 2020:645; Anderson, 2020; Hargreaves, 2020; Harris, 2020; Mineo, 2020). Naturally, Greece could not escape from this necessity. In many countries, including Greece, the level of educator training on how

to practice distance learning and how to use new teaching technologies was low (OECD, 2020). For this reason, educators went looking for resources, training, and cooperation with the children's families (Yang, 2020; Huang, et al., 2020) in order to ensure the effectiveness of the learning process.

Online teaching exposed more or less the same problems in all the countries where it was practiced. One of the more important ones that emerged concerned the equipment that students needed in order to be in a position to attend online courses (Robert & Danechi, 2020:10; Powers, Brawn & Wyatt, 2020:307) and to successfully cope with their demands. Many families had but one digital device which had to be shared by all siblings and/or parents working from home (Garcia, et al., 2020). Student access to the internet has also been a problem. On a global level, children from lower-income families lagged in terms of equipment as well as internet access (Andrew, et al., 2020:668-670). There were also problems in the way teaching was conducted, the main one being teaching duration, which was not long enough to cover the material specified in the curriculum (Sharp et al., 2020:4). Furthermore, the exercise material often had to be completed by the students after the end of class, then photographed or scanned, and sent to the educator (Addimando et al., 2021:65).

In addition, educators encountered great difficulties with the degree of student participation in distance learning. This effect was stronger in the first classes of primary school, where it was noted that the degree of participation was smaller and the quality of turned-in assignments lower compared with the impression given by the same students in times of in-person teaching (Figg et al., 2020:25). Many authors maintain that, in most cases of distance learning, the teacher-student interaction seems to be only virtual so that it becomes a responsibility of the parents to stand in for the educator in terms of in-person teaching (Donohue et al., 2020). The role of parents in online teaching was decisive both in terms of the number of hours that they would devote to help their children, and in terms of their own level of education so that they may be in a position to help them (Bansak & Starr, 2021:79; Jaeger & Hoppe, 2020).

In Greece, distance learning in primary school began in April 2020, and continued from November 2020 until May 2021 with short breaks. This paper documents the views of primary education teachers concerning the way in which remote learning has been applied to primary school pupils with the aim of providing a clear picture, to the extent possible, of the problems, difficulties and the effectiveness of this form of education.

### ***1. The survey***

The present survey was conducted among 20 primary-school educators from the two largest urban areas of Greece, namely Athens and Thessaloniki, via the questionnaire method. All participating educators were selected via the probability sample method with random sampling (Creswell, 2011:179-180).

The data collection took place in May 2021 (more than a year after the start of the COVID-19 pandemic crisis in Greece) via electronic mail. It contained 34 questions and 11 subquestions. Of these, 11 were open-ended questions with the remaining being closed-ended. The questionnaire took approximately 25 minutes to complete.

There were 13 females (65%) and 7 males (35%) participating in the survey. Their professional experience varied between 2 and 36 years of service. The classes they teach can be broken down as follows: Three teachers in first grade, three in second grade, three in third grade, three in fifth grade, and seven in sixth grade. Thirteen of the participants teach classes of 20-25 children, five teach classes of 15-19 pupils, and two teach smaller classes.

## ***2. Analysis of the survey data and results***

### *2.1 Analysis of the survey data*

The survey was carried out in order to investigate (a) the level of preparedness of the educators in applying distance learning techniques (knowledge and equipment), (b) the adequacy and the appropriateness of educator training for online teaching, (c) the problems that emerged from the application of online teaching and the way in which they were overcome, (d) the degree of student participation, and (e) the extent of parental involvement in online education.

Regarding the extent to which the educators were prepared to cope with this kind of teaching, half of the sampled educators replied that they were “not at all” prepared, and more than one in four (six) replied that they were “a little” prepared. Two of the participants stated that they were “quite” prepared, and two “very” prepared. The lack of preparedness for online teaching does not originate from a shortage of technical equipment on the part of the respondents, since 15 out of 20 reply that they possessed the necessary means. Two of those who did not possess technical equipment used material provided by the school, while three obtained what was necessary at their own expense. All respondents carried out online teaching from their home and not from school. The reasons for which they opted to teach from home are the following:

- Availability of appropriate hardware at home and familiarity with it (4 teachers)
- Family and practical reasons (presence of small children, comfort and better suitability of spaces, avoiding commuting, etc.) (6 teachers)
- Health reasons (2 teachers)
- Fear of network overload at school (2 teachers)
- Lack of network connectivity at school (1 teacher)
- “I did what every other teacher in the school unit did” (1 teacher)

In what concerns the question of educator training on distance learning, the majority stated that they were not prepared for remote teaching. Only one of the participants replied that they had previously attended some kind of training on online teaching.

Since the introduction of distance learning (April 2020) and to this day, more than half of the educators have not received relevant training (12 teachers). The remaining eight of the sampled educators attended some training offered by one or more entities: (a) At the university (five teachers), (b) at a seminar organised by the coordinator of teaching activities (two teachers), (c) at a seminar organised by a trainer colleague (two teachers), (d) at seminars at Regional Training Centres (one teacher), (e) at a seminar organised by a school training counsellor (one teacher), and (f) at a seminar organised by the director of primary education (one teacher).

An investigation of possible problems that arose from the use of distance learning showed that 17 out of the 20 sampled educators respond in the positive as to the existence of problems during online teaching. These problems were (a) technical (some applications of the teaching software platform would not work), (b) related to platform usability (new tools for them as well as for the students), and (c) health-related (many hours in front of the computer, stress, psychological pressure).

The most important problems, as mentioned in more detail in their replies, involved the connection to either the Internet or specifically to the remote education platform (nine teachers), and the lack of necessary equipment on the part of the students (three teachers). Furthermore, the participants found that during remote teaching, communication with their students suffered (two teachers). As one of them characteristically stated, there was “lack of participation, weak interest, loss of communication with children and parents”. Other educators (two) mentioned that the difficulty they faced concerned the fact that they were unfamiliar with the process of online teaching (“I knew nothing and I had to learn everything by myself”), and that there was “stress and difficulties in applying [the remote learning process] for both the parents and for myself”. Another educator brought up the issue of parental cooperation: “Parents were not always cooperative. For all intents and purposes, asynchronous education did not work for first-grade pupils, while synchronous education required plenty of time, effort and patience before we could get up to speed”. A mother educator who participated in the survey noted that she had a hard time preparing for her class because her children were attending class at the same time as she.

In what concerns the ways in which they addressed these problems and difficulties, four of the sampled educators responded that they coped with the problems with “*persistence and patience*”. Three educators dealt with the problems by modifying their method of communication with parents and pupils (sending educational material by email, communicating via Facebook, discussing over the telephone). Three of the participants asked for help from colleagues, friends and their own children in connection to the use of the online education platform, whereas other educators (two) experimented with the platform by themselves so that they would be able to use it more effectively.

Regarding the question of whether the problems experienced in the beginning of distance learning continued to persist until the end, eight educators responded in the affirmative. These were problems concerning difficulties or inability to establish an Internet connection, problems with the sound, and the lack of equipment for families with two or more children. Six educators responded that the problems (mainly those of a technical nature) decreased, and four mentioned that there were no longer any issues. Two educators also mentioned that *“student interest diminishes with time. Those who did not use to submit homework assignments before continue not doing so. Those who did not work autonomously before, do not do so now either”*.

Concerning the problems that the students potentially faced during the period of remote teaching, it would appear that their main problem in the first implementation of online teaching was the lack of technical equipment, since 13 out of 20 teachers mention that their pupils had no technical means at their disposal to attend online courses (49 out of a total of 394 pupils taught by the teachers who participated in the survey, or 12,44%). Among the children who did not possess any technical means to attend online courses, nine of them obtained the necessary equipment at their family’s expense, eight obtained it from school, three children were able to find equipment from friends and relatives, and one of them from the Ministry of Education.

Furthermore, thirteen of the participating teachers identified similar problems among their students to the ones they had to face themselves, both during the first year that online teaching was introduced (April 2020) and during the current school year (November 2020 – May 2021). Nine of those cited the difficulties that children experienced in connecting to the online teaching platform, and the lack of adequate technical equipment. Another teacher had difficulties with the teaching hours and the process of interacting with his students. An educator teaching a lower-grade class opined that the children were too young and immature for this kind of education, while yet another educator teaching a more senior class emphasises that *“The pupils are not used to an independent and autonomous way of working. They need very specific instructions, and distance learning requires personal effort and proper time management”*. Finally, another educator notes that *“some (children) have lost their spontaneity. Others turn off the cameras and leave, some are having a hard time with maths”*.

In the current school year, in which distance learning has been applied over a 6 month period, there was a major problem for pupils attending online classes simultaneously with their siblings and/or while their parents worked from home. The participating educators mention that 16 pupils were attending class simultaneously with their siblings of the same (primary) level of education, 11 pupils were attending class simultaneously with siblings of a different level of education (i.e., secondary or higher), 9 pupils had parents working from home, and 8 children were attending class while having siblings who were also attending class plus parents working from home.

Despite the problems that pupils might have had, most sampled educators report that their pupils attended online classes regularly.

Of great importance were deemed the educators' responses regarding the course effectiveness and the teaching method. A series of questions were asked to this end. The first question concerned the pace at which the online course material was being taught relative to in-person teaching. For six educators the online course was advancing at 21%-40% of the classroom teaching pace, for five educators at 41%-60%, for six educators at 61%-80%, while for one educator the pace was at 0-20% and for another two educators at 81%-100%. The educators who responded that their teaching advances very slowly online compared with in-person teaching were the ones who teach first grade, while those reporting that online teaching advances almost as fast as in person teach sixth grade.

The next question, concerning the number of exercises taught by the surveyed educators, was crucial for the level of the provided education. Sixteen out of 20 did not teach as many exercises as in a physical classroom setting. Of those, six educators taught half of them, three educators taught one-third of the exercises, and four educators taught 60%. One educator responded that *"I have them do little games, we do other exercises orally by sharing screens, so in theory it could be that we actually do even more exercises"*. Although it follows from the above replies that most educators could not teach online as many exercises as they used to teach in the physical classroom, almost all respondents assigned homework (19 out of 20 educators). Of those, six educators assigned to their pupils the same number of exercises that they used to assign in a classroom setting, ten educators assigned fewer exercises, and three educators much fewer.

The sampled educators had some interesting responses in connection to parent behaviour during online teaching. Nine educators mention that only "a few" parents were attending class alongside their children, eight educators respond that they were "quite a few", and three educators say that "most" parents were attending class.

However, even though parents may have been attending class to a significant extent, fourteen out of 20 participants state that there was no intervention on the parents' side, while five educators report that there were "few" interventions.

Furthermore, with regard to parent involvement during online evaluation in the form of a test or a monthly examination, the surveyed educators respond that "few" are the parents who help their children. On the basis of this, it is not surprising that in their answer to the question of whether they believe it is possible to properly evaluate student performance in online courses, approximately half of the participating educators (nine of them) say that the evaluation cannot be accurate, while the remaining 11 reply that it can be accurate to some degree. For this reason, when responding to a question regarding the difficulty that they had in evaluating student performance in a way that reflects reality, nine out of 20 educators responded that

they found it “quite” difficult, six that they found it “very” difficult, three “a little” difficult, and two “not at all” difficult. In any case, almost all educators (19 out of 20) agree that they would rather not turn in grades during the time that online teaching is in effect.

Another question was whether the participants believe that there are ways to replace remote teaching, to which seven out of the 20 responded that there is no other way, while three respond that they are not aware of an alternative. According to half of the educators, the system that was applied in May 2020 should have also been applied during the current school year, namely in-person attendance at school on a rotating basis or in small groups, and reduction of the course material.

Finally, the respondents were asked to mention any thought or difficulty they had with remote teaching. The responses are quoted verbatim:

- “We were unprepared for it. There should have been teacher training on new technologies even before [the pandemic]. Distance learning is not for the first grades of primary school, especially for the first grade.”
- “... to what extent we know how to teach remotely, as this is a different type of teaching.”
- “Pupils spend quite a few hours in front of a computer.”
- “The mental and physical effect of teaching during the lockdown.”
- “It is more tiring for both teachers and pupils.”
- “I am quite concerned about issues of personal data protection and the use or not of the camera.”
- “It is a very wrenching experience in front of a screen with cameras turned off so as to not lose the connection. No comparison with in-person [teaching].”
- “I hope this is not a trial experiment [sic] for future use, because nothing [can be] more definitive than the temporary. We want in-person learning.”

### **Discussion of the survey results**

There are two important issues that emerge from the responses of the sampled educators of this survey. The first issue is the extent to which they were knowledgeable enough to practice online teaching, while the second issue concerns the various technical problems that both they and their pupils had to face.

In what concerns the implementation of distance learning, it could be said that primary school teachers in Greece went through a violent transition. Considering that a number of them are of a more senior age with major shortcomings in digital literacy, the problem was quite acute. Making things worse, most of them had no training for this form of teaching either during their studies or during their professional career. They were completely unprepared when remote teaching came along, so that they started seeking various ways to educate themselves. Equally problematic is the fact that, to this day, there has been no training offered by the Greek Ministry of

Education. In fact, teachers serving in primary education did their remote teaching using, in most cases, a “utilitarian” approach. At the same time, it is not surprising that in primary education, and especially in the first grades of elementary school, pupils are not very familiar with the use of a computer or the Internet. This objective shortcoming of the pupils was compensated by parental assistance. However, as parents often remained present for the entire duration of a class, they added stress to the teachers who felt that they were being constantly “judged” and “evaluated” by the parents, thus taking spontaneity out of their teaching.

The second issue pertains to the technical equipment (computers, tablets, cameras, etc.) and concerns both educators and students. The problem became more severe when two or more children were attending an online class while parents were also working from home. As far as the technical equipment is concerned, several educators did not possess the necessary means to accomplish their teaching. It seems, however, that the lack of technological devices was more frequent on the part of the students. Furthermore, educators and students often found it difficult to connect to the digital classroom due to a low data-connection signal or network overload. The problems with sound continued to persist until the end of the use of remote teaching, thus causing irritation and stress to both teachers and pupils.

From the above one can understand that the teaching pace could not be as it should; it was slow and often problematic. The educators did not manage to teach the material and the exercises that they would have taught in the case of in-person teaching, nor to communicate with their students, support them in their problems, etc. For this reason, half the sampled educators believe that it would be possible to have a better learning outcome if the teaching took place on a rotating basis or in small groups, as it happened during the first period that distance learning was applied. In that way, teaching would be done under “normal” conditions, as opposed to the “unnatural” and protracted reality of a mandatory lockdown, thus offering a better learning and psychological outcome for the students.

The COVID-19 pandemic crisis has already lasted for more than a year, and according to global epidemiological data it may well continue for a long time. It is therefore possible, according to the opinions of the experts, that similar emergency conditions may arise again in the near future. Obviously, the choice of distance learning has been imposed by the circumstances but it is not the only available choice. Its use over extended periods of time cannot yield the same learning outcomes as in-person teaching. In order to safeguard not only the children’s cognitive development but also their social-emotional learning and well-being, it would be preferable to create classes with a lower teacher-to-student ratio or at least to adopt teaching on a rotating basis. At the same time, it would be good if the curriculum were adapted to the new conditions which do not only concern COVID-19 but also other, analogous changes in the future. In any event, it cannot be denied that the global pandemic crisis caused by COVID-19 has significantly changed the daily lives of all of us, and especially our work and educational environment. The learning, social-emotional and



psychological implications will surely become a wide open field of research in the more distant future.

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