DigiTeaL

DigiTeal – Digital Teaching Literacy

IO1.A2 – GREEK NATIONAL REPORT

Developed by:

DEMOKRITOS
NATIONAL CENTRE FOR SCIENTIFIC RESEARCH

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DigiTeaL

INFORMATION ABOUT OUTPUT

Output:	IO1 – DigiTeal Framework
Activity:	IO1-A2: National Report

PROJECT INFORMATION

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Project title:	Digital Teaching Literacy
Project number:	2020-1-UK01-KA226-SCH-094429
Sub-programme or KA:	KA2 Cooperation for Innovation and the Exchange of Good Practices
Sector:	School Sector

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1. General Introduction

On 11th March 2020, Tedros Adhanom Ghebreyesus, the Director of the World Health Organization made an announcement never heard before in the history of the organization and of the world – the start of the COVID-19 pandemic. As a result, worldwide a series of measures to prevent the spread of the COVID 19 virus were taken, including long term quarantine, limitation of travel, working from home, and the shift to online teaching. In this context, teachers were put in a delicate position that required them to transfer their teaching online in a record time and with little or no preparation.

The DigiTeaL project brings together five partner countries (United Kingdom, Cyprus, Greece, Germany and Romania) that work together to:

1) pinpoint the needs and problems faced by teachers while teaching online;
2) create practical, applied resources for the use of teachers, using best practices;
3) offer teachers information about the non-technical classroom management of online teaching and solutions to problems that might occur during online classes; and
4) inform teachers about an internationally recognized online assessment system that can be adapted for students regardless of the subject that is being taught.

This report was developed as part of the DigiTeaL project and reflects the level of digital literacy of Greek teachers 2 years after the start of the COVID-19 pandemic. This report is structured in 4 sections, followed by a conclusion and bibliography. The first section provides a snapshot of digital initiatives adopted during the COVID-19 pandemic and explores the current state of online teaching in Greece, the second section explains the methodological approach and data collection process, section 3 provides an analysis of the data collected in Greece and section 4 summarizes good practices related to online teaching.

2. State of the Art regarding Online Teaching

The effects of the COVID-19 pandemic on education were unprecedented internationally. Millions of hours of teaching were lost and countries around the globe tried to provide solutions to the problems created by the need to transfer the educational process from face-to-face learning to distance learning.

In Greece, the government in collaboration with the Greek National Public Health Organization, decided to close all educational institutions at all levels across the country on March 10th 2020. The Ministry of Education & Religious Affairs responded by launching digital resources previously developed through the Digital School Strategy. This Strategy focused on developing digital solutions for synchronous and asynchronous learning, but these tools were designed to complement the educational process and not to replace it. Previously used by a small number of

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teachers and students, these tools formed the educational background on which many further digital efforts were built such as the Aesop and e-me platforms while other existing ones such as Photodentro were enriched. For this reason, an effort was made to rapidly train teachers in distance learning, and new digital material was developed immediately to meet the needs of both teachers and students.

The tools that have been developed cover the needs of both synchronous and asynchronous distance learning. The Ministry of Education suggested Webex (https://www.webex.com/), to serve as the official synchronous platform and e-me (https://e-me.edu.gr) or e-class (https://eclass.sch.gr/) platforms for asynchronous distance education. The free version of Zoom (https://www.zoom.us/) and e-mails were also widely used by the teachers. Moreover, jointly with the Institute of Educational Policy (IEP) and the National Broadcasting Channel (ERT), the Ministry of Education produced educational TV lessons for all classes of primary school, which enjoyed wide viewership.

It is worth emphasizing that for the academic year 2019-2020, distance education according to the Ministry of Education "does not replace face-to-face learning, but rather aims to maintain a close contact between students, teachers and the school.", while from the year 2020-2021 distance education is considered to be equivalent to face-to-face learning.

From this process a significant number of tools were developed and enriched, while the Ministry of Education launched a new informative portal called “We learn at home” (https://mathainoumestospiti.gov.gr/) that acts as an aggregator for all digital tools in order to help teachers and students to find everything they need in one place.

Some of the tools available are briefly described below:

Digital school (https://dschool.edu.gr/): Digital educational content is a key pillar of the national digital policy for the integration and constructive use of ICTs in school education. The development of interactive Open Educational Resources, together with an integrated digital infrastructure for their organization, search, wide availability in the school community, as well as modern digital work and collaboration environments for students and teachers, are central axes of the Ministry of Education for the Digital Educational Content of Primary and Secondary Education.

Aesop Platform (http://aesop.iep.edu.gr/): The "Aesop" platform was developed by the Institute of Educational Policy and is a pioneering integrated tool for the Development, Design, Writing, Evaluation and Presentation of Digital Interactive Teaching Scenarios in a modern and functional environment.

Photodentro (http://photodentro.edu.gr/): Photodentro is the National Accumulator of Educational Content for Primary and Secondary Education. It is the central e-service of the Ministry of Education for the unified search and distribution of digital educational content in schools. It is open to everyone, students, teachers, parents and anyone interested.

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e-Me (https://auth.e-me.edu.gr/): The e-me Digital Education Platform for students is a secure integrated digital environment for learning, collaboration, communication and networking of all members of the school community.

Panhellenic School Network (https://www.sch.gr/): The Panhellenic School Network (PSN) is the national network and internet service provider (ISP) of the Ministry of Education. It interconnects and supports 16,079 school units.

The Online School (https://eclass.sch.gr/): The Online School of the Regional Directorate of Education of Attica was designed and implemented successfully during the school year 2020-21. It was a special school of special circumstances for vulnerable groups of students and teachers who, according to the instructions of experts, could not be physically present in the classrooms due to the pandemic. Within the framework of this school, online Primary and Secondary Education e-classes were established and operated, which provided synchronous and asynchronous distance education to the aforementioned student groups. It was implemented in the framework of Greece's e-class, which is an online platform that hosts digital educational material for asynchronous distance learning.

3. Needs and Gaps of Teachers in relation to Online Teaching

3.1 Questionnaire Results

The questionnaire has been answered by 56 teachers in Greece, of which 33 were women and 23 men. The questionnaire was distributed online and almost half of the respondents were Secondary School teaches (32/56), 17/56 were Primary School teachers and only 7/56 were VET teachers.

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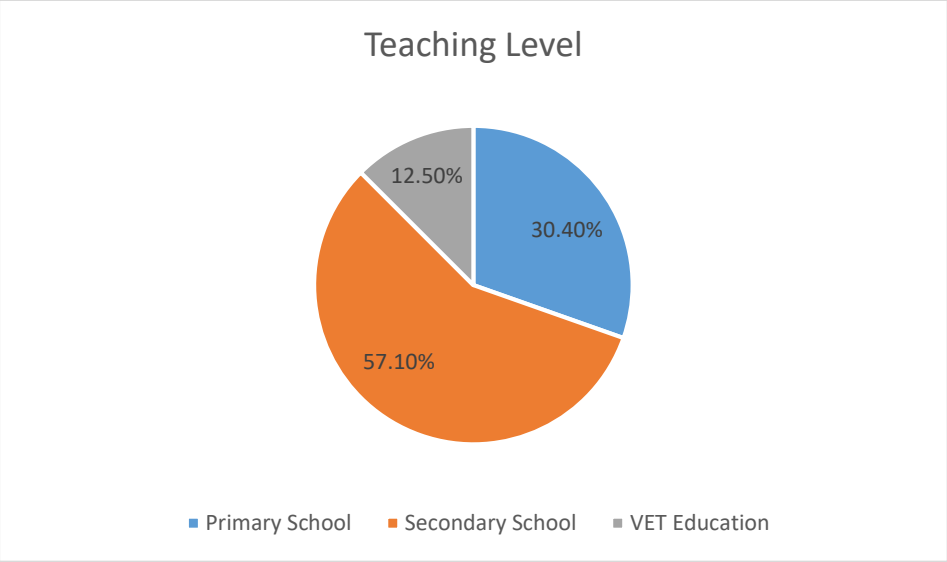

Figure 1: Teaching Level of the Respondents

1. Presentation of Digital Skills Results

Over half of the teachers that answered the questionnaire claimed that they felt very confident and confident regarding online teaching (64,3%), whereas 20 out of 56 (35,7%) didn't feel so confident or didn't feel confident at all.

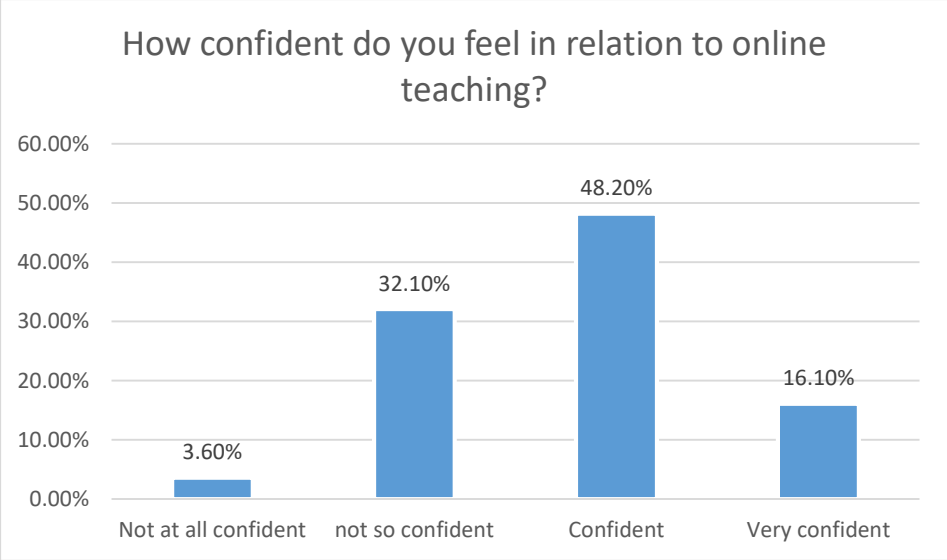

Figure 2: Confidence of Teachers in relation to Online Teaching

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The main difficulty that teachers faced during online teaching was bad Internet connection (80,4%), followed by lack of appropriate equipment (44,7%), digital skills and knowledge (33,9%). Some of the participants had also encountered lack of appropriate software (17,9%).

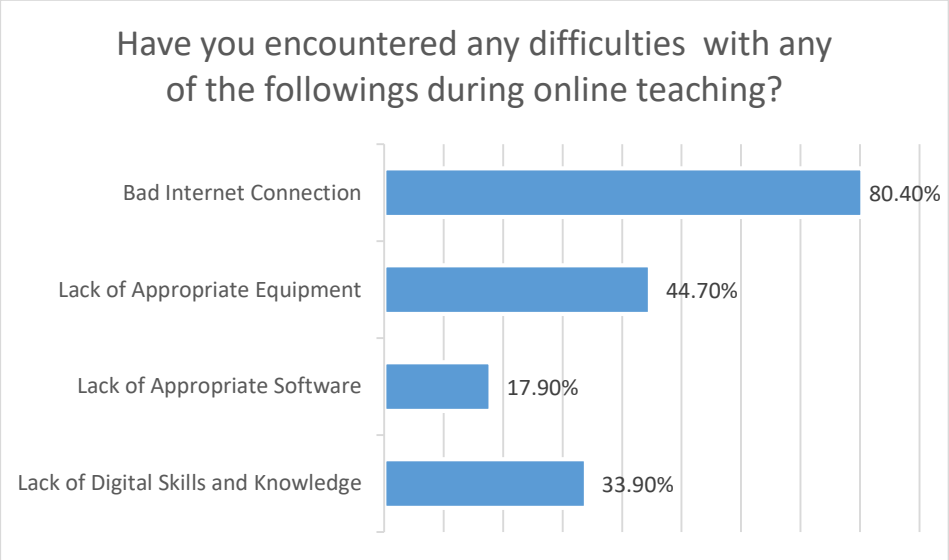

Figure 3: Difficulties Teachers Faced whilst Teaching Online

Almost half of the participants' institutions don't use any learning management system (53,6%), some use eClass (23,1%), Moodle (19,6%) and e-me (3,6%), a Greek Digital Educational Platform for pupils and teachers, whereas none of their organisations use 360Learning, Svelte or Talent learning management systems. It is worth mentioning that some teachers answered Webex as the learning management system of their organization, which proves that the difference between a learning management system and a conferencing tool is not clear to them.

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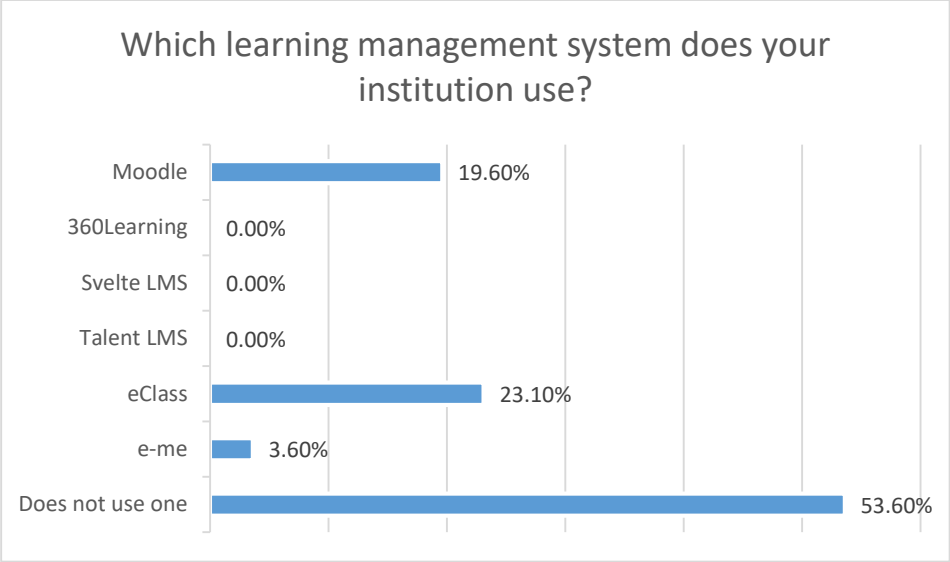

Figure 4: Learning Management Systems that the Institutions Use

The vast majority of the respondents (49/56) use Webex for delivering their online sessions. Webex was suggested as the official tool for all teachers to use but the fact that the questionnaire result isn't 100% is because some of the teachers who responded might not have been appointed at a public school during the pandemic and might have used other platforms (e.g., Zoom, Skype, etc.) for their out-of-school sessions. More than half of the respondents (36/56) use Zoom in order to deliver their online sessions, 32 out of 56 use Skype 20 out of 56 use Microsoft Teams, 18 out of 56 use Google Meet and only 5 out of 56 don't use any software or tool for their online sessions, since they might deliver private face-to-face lessons.

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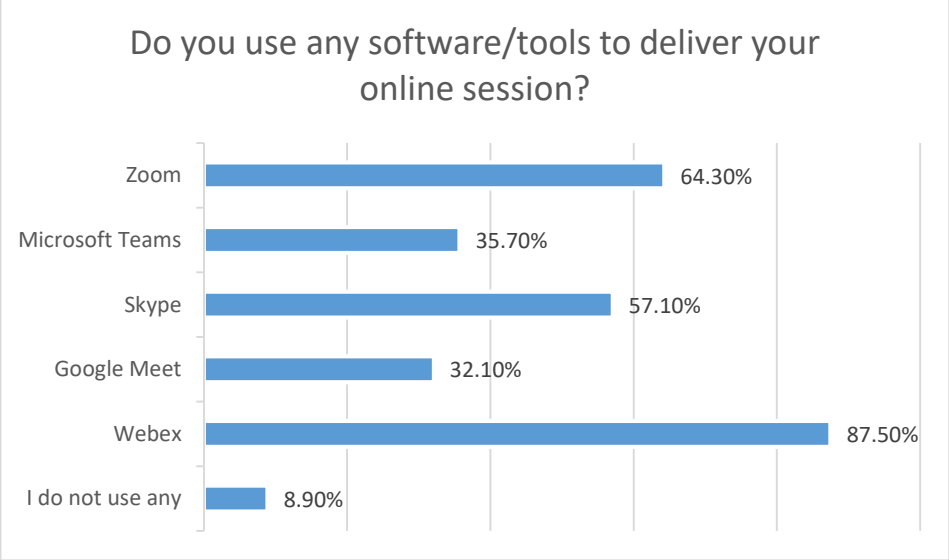

Figure 5: Software/Tools that Teachers Use to Deliver Online Sessions

The vast majority of the teachers (78,6%) use online quizzes as a way to enhance the interaction with their students, less than half use online whiteboards (35,7%) and Padlet (35,7%) and some use brainstorming charts (17,9%), related videos (5,4%) and Kahoot (3,6%). Only 8 out of 56 teachers answered that they are not using any software or tool for this purpose.

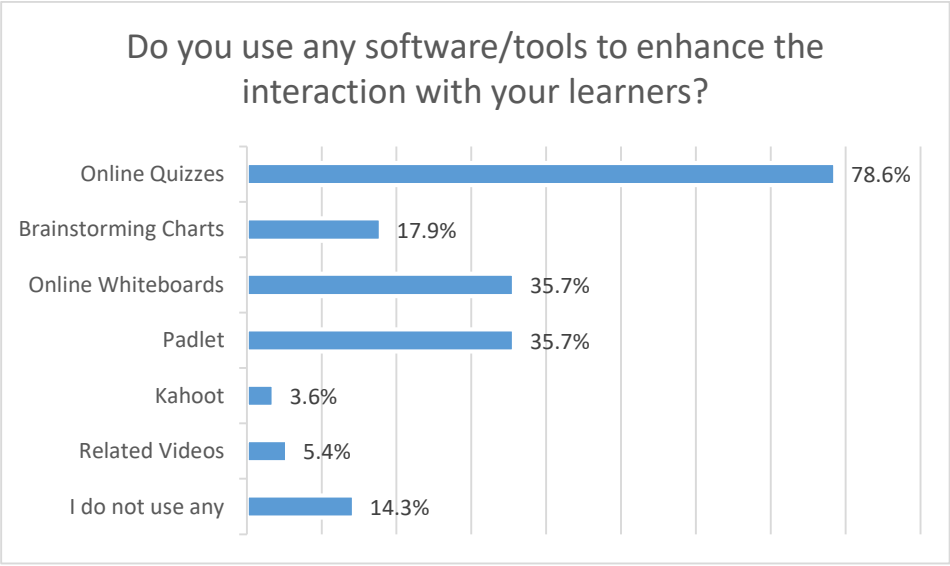

Figure 6: Software/Tools that Teachers Use to Enhance the Interaction with the Learners

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It is worth mentioning that half of the respondents don't use any software or tool in order to create engaging content for their online teaching, whereas the rest use Canva (35,7%), Powtoon (14,3%), Google Drawings (7,1%) and Hot Potatoes (3,6%).

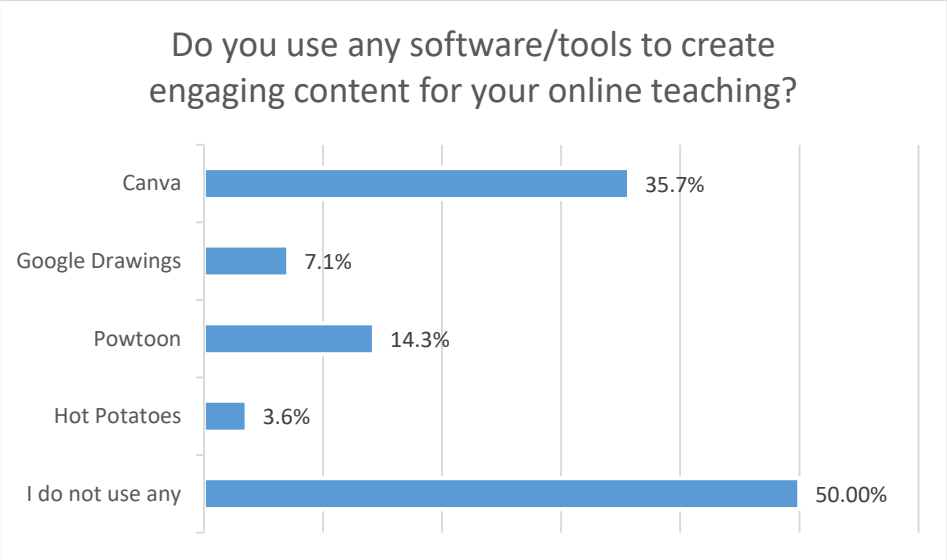

Figure 7: Software/Tools that Teachers Use to Create Engaging Content for the Online Teaching

Only 19 out of 56 teachers were aware of the Open Badges System as a validation method but are not using it, while the rest (37/56) were not aware of this method.

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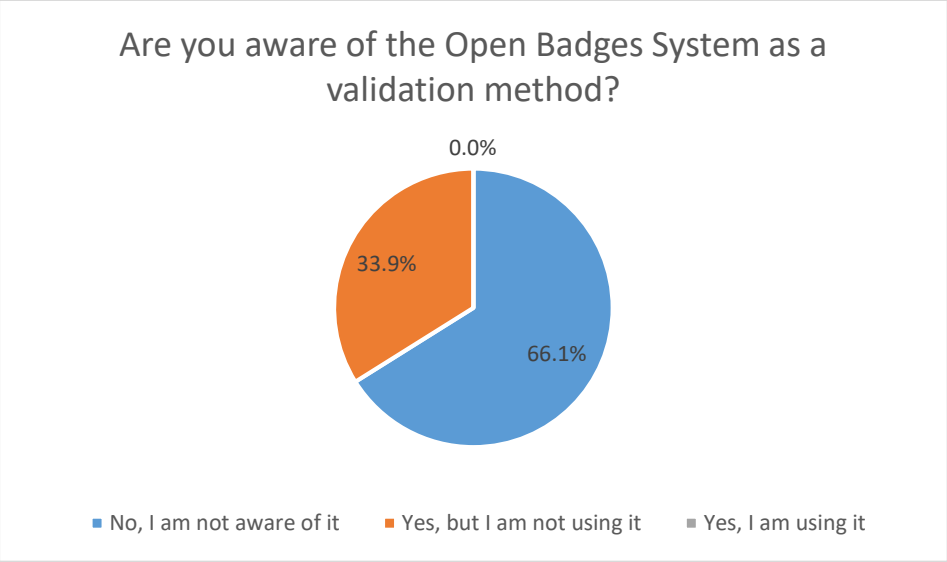

Figure 8: Awareness of Teachers about the Open Badges

2. Presentation of Managing Online Learners Results

Regarding the issues that teachers have faced during their online sessions in relation to their student's motivation and fatigue, more than half (32/56) answered that their students had low motivation and 44 out of 56 responded that their students were more tired than during the face-to-face teaching. Less than half of the respondents claimed that students' motivation (35,7%) and fatigue (14,4%) was the same as with the face-to-face learning. There were a few teachers (4 out of 56) who answered that their students' engagement was increased and the same number of teachers also claimed that students were not experiencing fatigue during online teaching.

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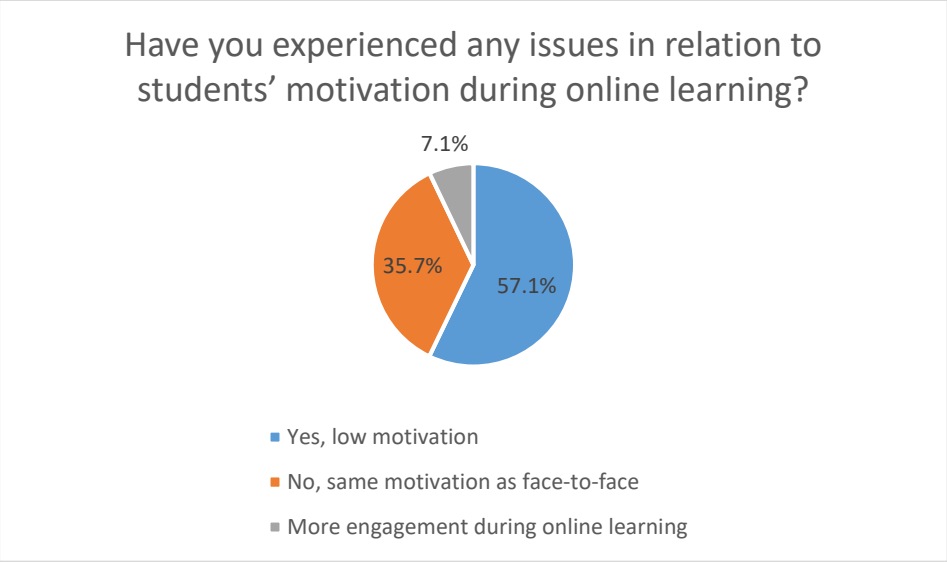

Figure 9: Issues in Relation to Students' Motivation During Online Learning

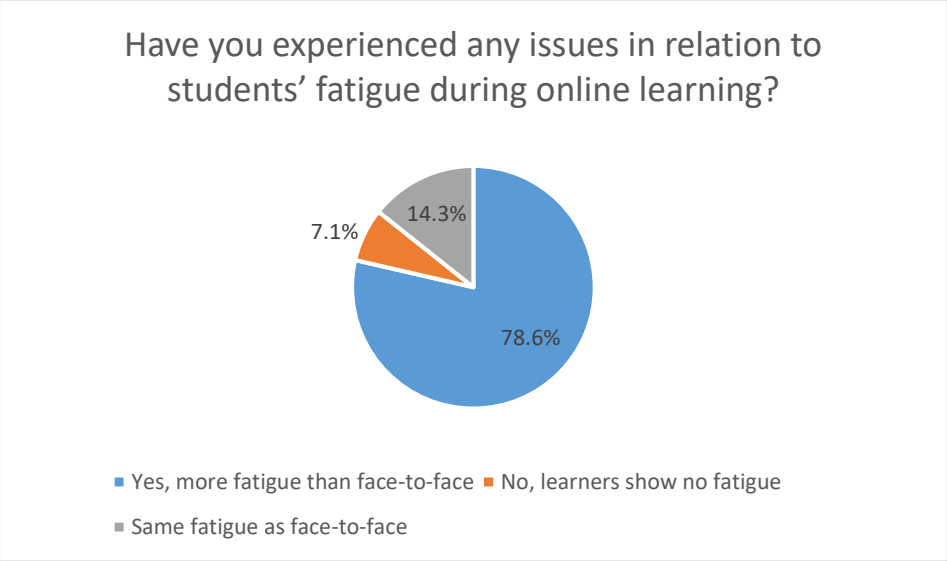

Figure 10: Issues in Relation to Students' Fatigue During Online Learning

Concerning the students' achievements, more than half of the teachers (37 out of 56) noticed that the grades of their pupils were lower compared to those they earned during face-to-face teaching, 12 out of 56 haven't seen any change and only 7 out of 56 replied that the grades of their students were higher.

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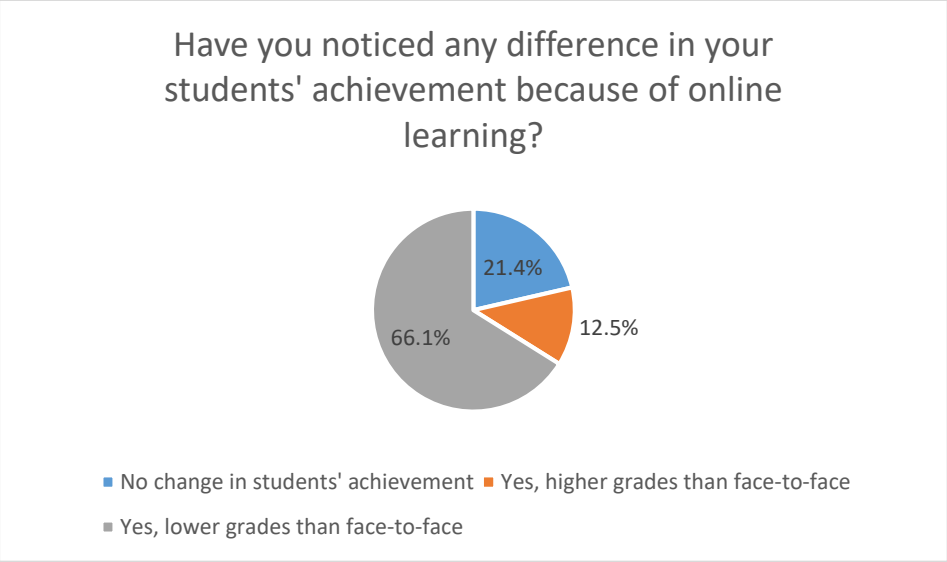

Figure 11: Difference in Students' Achievement because of Online Learning

Almost half of the teachers (42,9%) have noticed that learners with special educational needs have found online learning easier and the 1/3 said that the same applies for learners with physical disabilities (35,7%), previously high-achieving (35,7%) and neurodiverse learners (33,9%). 25% of the respondents said that previously low-achieving learners have found online learning easier and only a few teachers claimed that learners with disadvantaged backgrounds (12,5%) and shy students (5,4%) found online learning easier. According to 4 out of 56 teachers who participated in the questionnaire, none of the aforementioned groups of students found the online learning easier.

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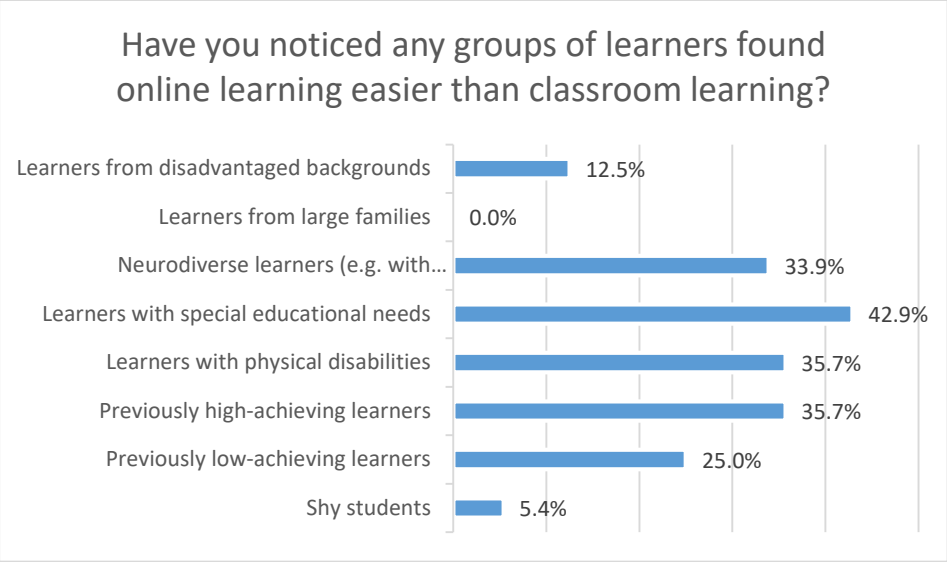

Figure 12: Groups of Learners that Found Online Learning Easier than Classroom Learning

3. Presentation of Online Safety and Privacy

More than half of the teachers (32/56) answered that they were not aware of the GDPR guidelines. This seems quite odd since teachers were officially informed on these guidelines from the Personal Data Protection body. This result might be, because GDPR was mentioned in the questionnaire with the English acronym and not with the Greek one (ΓΚΠΔ). Another reason could be that teachers who are not aware of GDPR could have been appointed after the official training. The vast majority did not share students' photos or information without consent (52/56) and informed their students about personal data issues (44/56). Only one third of the respondents asked for the consent of the students in order to record the session (20/56) and were using tools that protect students' personal data (16/56). Fortunately, only 4 out of 56 teachers did not take any measures to protect students' privacy.

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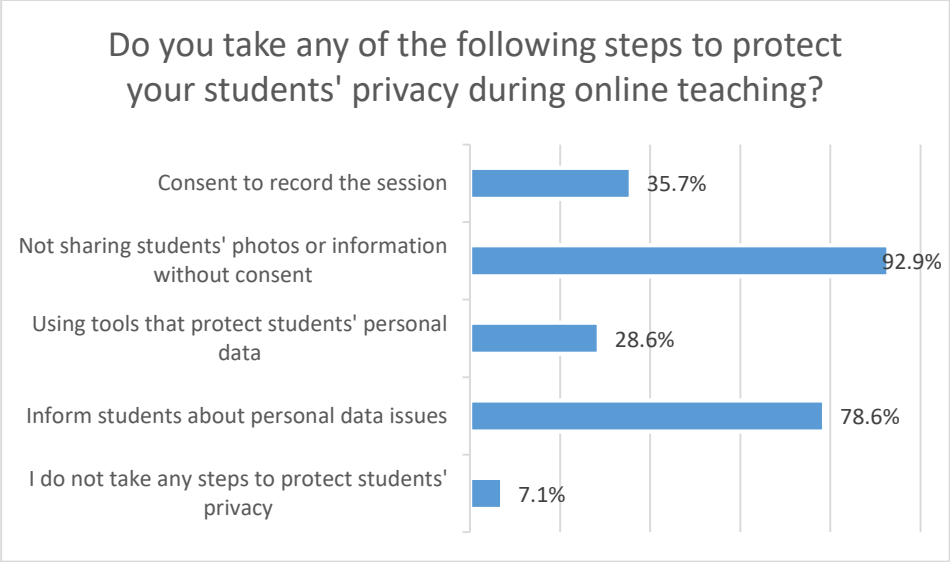

Figure 13: Steps to protect the Students' Privacy during Online Teaching

Regarding the steps that teachers took in order to avoid disruptive intrusions in their online classes, the majority verified the students' identities before accepting them in an online session (40/56) and avoided sharing the meeting link in social media platforms (39/56). Almost half of the teachers (24/56) used a password for accessing the online sessions and only 4 out of 56 did not take any measures to avoid disruptive intrusions.

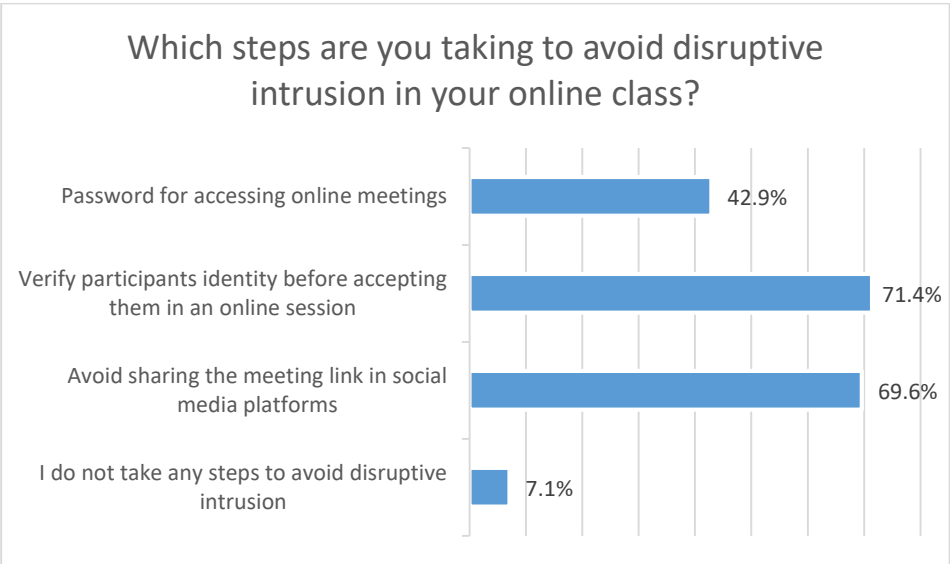

Figure 14: Steps to avoid Disruptive Intrusion in Online Class

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As for the steps that teachers took in order to protect their students from online threats, the vast majority of them (83,9%) informed their students about what the possible online threats are. Also, almost half (23/56) of the teachers responded that they changed the security settings. Some have established a cyberbullying reporting system and only 4 out of 56 did not take any measures in order to protect their students.

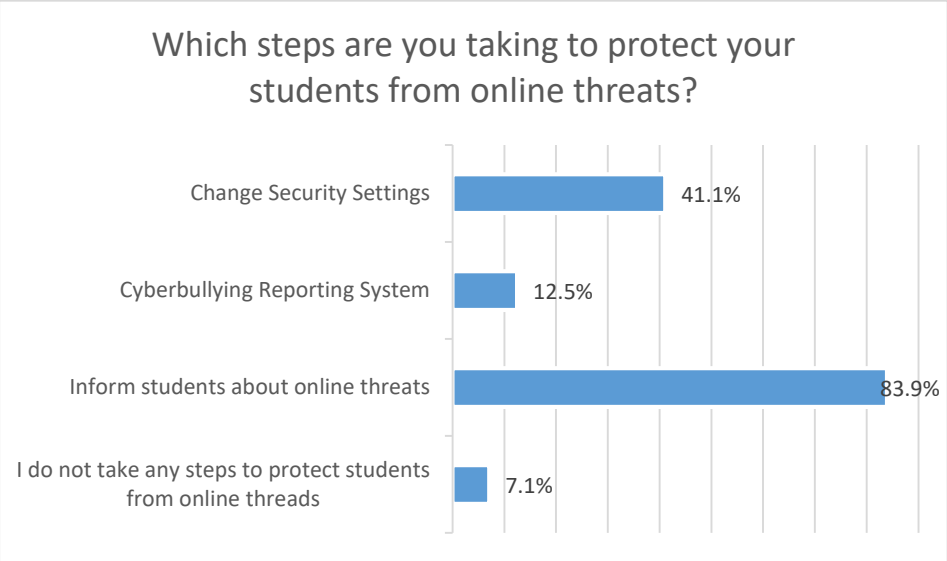

Figure 15: Steps to protect the Students from Online Threats

4. Good Practices Results

Just half of the teachers who participated shared tips and good practices with their colleagues. Only 3 out of the 56 teachers wrote some tips and good practices as an example, in the non-compulsory open-ended answer field of Google forms and it is worth mentioning some of them, such as to utilize the digital tools and environments, in order to enhance the creative research, teamwork and initiatives, as well as to cultivate a positive environment that will lead to better cooperation.

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3.2 Focus Group Results

Five teachers in total took part in one-on-one focus groups, which were held both in person and virtually, through the phone or via zoom. The three were primary school teachers and the rest were secondary school teachers.

Regarding their experience with online teaching, teachers' opinions varied. Two stated that their experience was positive in total, since more students were actively involved during online teaching than they expected, but if they were better organized and prepared, everything would be a lot easier and effective. The rest of the teachers thought that their experience was negative at the beginning, since they were surprised by this new reality that they had to adapt to. They didn't feel they had the means and knowledge, in order to respond adequately to this new way of teaching. It is worth mentioning that some teachers have noticed that students who participated more during a face-to-face class might not participate as much during an online class and vice versa. One example was that most shy students would feel more protected and comfortable during an online class and would participate more in comparison to face-to-face class. Another example was some students with learning difficulties who found online teaching easier than classroom learning. A positive aspect of an online class was that students had the opportunity to easily search on the Internet for information regarding a particular class, giving them the chance to practice their digital skills, critical thinking and learn to distinguish the difference between valid and fake news (media literacy).

Regarding the difficulties and challenges that teachers faced when they adopted the online teaching most of the teachers mentioned that many households didn't have a computer or a tablet for every kid, so it was difficult to participate in classes just by using their smartphones (if they had one). The same applied for some teachers who didn't have the right equipment in order to deliver an online class (cameras, microphones, etc.). Some municipalities were also mobilized and offered some equipment to schools who needed it. Also, some teachers took the initiative to search for donations from institutions, banks, etc., in order to equip their school facilities. A 200€ voucher was offered by the government to a small number of students in need, based on financial criteria.

Also, if parents worked from home and students were online at the same time, many network issues arose since the traffic was more than some lines could handle. Also, many families had spatial issues at home, since if they had more than one child in the same room, participating in different classes at the same time, a lot of confusion was caused.

Children didn't face many noticeable difficulties in regard to using a software or tool, but many teachers didn't have the right guidance and training, at least at the beginning. Some older teachers faced some issues regarding all the new software that they had to use, in order to deliver an online class. The Ministry of Education and Religious Affairs started training the teachers at

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the end of the 1st quarantine, when Webex, eClass and e-me were suggested to be the official tools for delivering synchronous online classes.

Another issue arose when parallel support teachers (parallel support is a Greek type of special education provision aiming at providing additional support to students identified with special educational needs and/or disability in mainstream classrooms) didn't have the appropriate guidance at the beginning on how to use the Webex breakout room for isolating the student with special educational needs and/or disability who they helped, in order to have a one-on-one session, which is very useful for parallel support teaching. An important difficulty was the lack of motivation from teachers, who didn't want to make an effort, in order to be appropriately prepared for an online class and get acquainted with the new technological tools. This was more noticeable to older teachers who were practicing more established traditional educational methods.

Sometimes, the parents of some students took part in the course of the online classes, which put teachers in a difficult position and prevented them from continuing their class seamlessly. Finally, another difficulty was that there were no global guidelines for every challenge teachers might face during online teaching. For example, there were no guidelines for specific tools and software for special education and teachers had to take the initiative and search for tools that would ease their work.

Regarding the difficulties that teachers faced in relation to managing their students in an online classroom, the lack of immediacy was apparent. Also, some teachers found it difficult to evaluate their students as they felt unsure about whether they had acquired the new knowledge or not and hence, found it difficult to grade them.

In order to protect the students' privacy, their cameras were off and, if some students didn't participate a lot during an online class, it was easy for them to "disappear". Teachers had to find new and creative ways, in order for the students to participate more actively. Also, it was especially difficult to manage students with ADHD during an online class in comparison to face-to-face learning.

Teachers were also asked if online teaching is the future of education, what areas/skills they would like to develop further in order to be better prepared as educators. The most common answer was to train teachers better in regard to using digital tools for delivering online classes and not have them experimenting with using a computer only during school hours. Another area that teachers need to be trained on is using digital tools for validating the students' knowledge and grading them (such as using online quizzes).

It is also considered important to create special tools and software that will work with any operating system and will include complete educational material for the learning needs, not only of general but for special education as well.

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Finally, teachers were asked if they had any tips or good practices that they would like to share in terms of online education. One of the teachers mentioned that she used an online tool to register the days and times that she was available, so that parents could make an appointment, in order to discuss their kid's progress (https://www.appointlet.com/). It was also expressed that it is always a good idea for teachers to communicate with colleagues and share their experiences and even some problems they have faced, in order for the others to be prepared. So, it would be nice to have a forum or platform that could ease the communication between several educators and be a common space to share their experiences.

It is also considered important to give the floor to the students, during an online class, to express their opinions and have an active role. It's recommended to let them participate in an experiential online learning process and not to bombard them with sterile knowledge. Furthermore, it is considered important for the teachers to try using more recent educational methods, which utilize technology through gamification. It will take some time for the students to get used to these methods and start learning, but it will worth it.

4. Good Practices in relation to Online Teaching

GOOD PRACTICE 1	
Name	T4E: Fast-paced teacher training in the implementation of distance education (holistic approach)
Description (50-70 words)	The aim of the action was to utilize the acquis of distance education and to further cultivate the knowledge and digital skills of teachers in pedagogical and didactic approaches, with the support of modern digital media, used in technologically enriched living conditions as well as in distance learning. The T4E training program utilized modern (teleconferencing) and asynchronous distance learning technologies (eClass and e-Me platform). The duration of the training program was 20 hours, which were implemented through synchronous and asynchronous teaching within 8 calendar weeks. Specifically, 10 hours of distance training were provided through modern e-learning tools (Webex)

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	and 10 hours of asynchronous training on the eClass and e-Me platforms.
Key Stakeholders/ Provider (If applicable)	All Teachers in Greece
Level (Organisational, Regional, Local, National)	National
Link/ Website	https://t4e.sch.gr/

GOOD PRACTICE 2	
Name	Teacher Training for the Exploitation and Implementation of Digital Technologies in Teaching Practice (Second Level ICT Training)
Description (50-70 words)	In Greece, the need to upgrade ICT knowledge and skills of the educational community was initially approached with the training of teachers on basic ICT skills during the period 2000-2004, known as "A-Level ICT Training" and then with the training in the Exploitation and Implementation of ICTs in the teaching practice, known as "Training A 'level ICT". The Second Level ICT Training ", which is implemented on behalf of the Ministry of Education, Research and Religion, concerns the continuation and evolution of the First Level ICT Training, which it updates, upgrades and enriches as to the content and extends to all specialties of teachers. The training is addressed to teachers of all disciplines and specialties of primary and secondary education.
Key Stakeholders/ Provider (If applicable)	All Teachers in Greece
Level (Organisational, Regional, Local, National)	National
Link/ Website	https://e-pimorfosi.cti.gr/

GOOD PRACTICE 3	
Name	Digital Education
Description (50-70 words)	The E-Learning platform of the Training and Lifelong Learning Center of the National and Kapodistrian University of Athens offers education programs which are addressed to teachers (permanent, substitutes, etc.) and

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	graduates of pedagogical and teaching schools. The purpose of this Program is to get acquainted with the required knowledge and applied skills in the field of digital learning and teaching (digital education) in formal and non-formal education.
Key Stakeholders/ Provider (If applicable)	All Teachers in Greece
Level (Organisational, Regional, Local, National)	National
Link/ Website	https://elearningekpa.gr/courses/digital-education

GOOD PRACTICE 4	
Name	STEM in Education: Learning Tools and Developing Activities
Description (50-70 words)	The purpose of this program is to educate participants in the STEM methodology and to create activities based on it. The holistic approach of the four disciplines integrated in STEM is the most modern educational practice, which is based on teamwork and the development of analytical thinking to solve complex combination problems. The program is addressed to University / TEI graduates of the country or abroad. In particular, the program is aimed at current and future teachers of all levels in public and private education, graduates of pedagogical and teaching schools of all specialties as well as graduates of schools of science, technology and engineering.
Key Stakeholders/ Provider (If applicable)	All Teachers in Greece
Level (Organisational, Regional, Local, National)	National
Link/ Website	https://elearningekpa.gr/courses/stem-stin-ekpaideusi-ekmathisi-ergaleion-kai-anaptuksi-drastiriotiton

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5. Conclusion/ Summary

As a result of the COVID-19 pandemic, in Greece, the government in collaboration with the Greek National Public Health Organization, decided to close all educational institutions at all levels across the country on March 10th 2020. The Ministry of Education & Religious Affairs responded by launching digital resources previously developed through the Digital School Strategy. An effort was made to rapidly train teachers in distance learning, and new digital material was developed immediately to meet the needs of both teachers and students. The Ministry of Education suggested Webex (https://www.webex.com/), to serve as the official synchronous platform and e-me (https://e-me.edu.gr) or e-class (https://eclass.sch.gr/) platforms for asynchronous distance education. In this context, teachers were put in a delicate position that required them to transfer their teaching online in a record time and with little or no preparation, which led to acknowledging many needs and gaps that surfaced.

The questionnaire that was distributed, in order to identify the needs and gaps of educators in Greece in relation to online teaching, managing learners online and online safety, has been answered by 56 teachers. The key points were that 35,7% of the teachers didn't feel confident in relation to online teaching and that 33,9% felt they lacked in digital skills and knowledge. Moreover, over 80% stated the bad Internet connection issues as the primary obstacle they had to overcome when switching to online teaching.

The focus group was conducted with the help of 5 primary and secondary education teachers who stated that they didn't feel they had the means and knowledge, in order to respond adequately to this new way of teaching. Firstly, because there were a lot of digital skills gaps, but also because there was a lack in online educational material, digital tools/software and equipment. As a result, teachers also need to be trained in using digital tools for validating the students' knowledge and being able to fairly grade them. A platform that teachers can share their experiences and knowledge in regard to online teaching and tools that would ease the learning process is also considered important.

Technology has an important role in delivering online classes, but we shouldn't forget that it's just a tool. Teachers have to use their imagination and knowledge, in order to make good use out of it. The best option would be to integrate technological tools in a face-to-face class, since it is almost impossible for it to be replaced in total by online classes. For example, technology could make the collaboration of students easier and more efficient.

Finally, it is worth mentioning the T4E: Fast-paced teacher training in the implementation of distance education (holistic approach) (https://t4e.sch.gr/), as a good practice in relation to online teaching, which aims to utilize the acquis of distance education and to further cultivate the knowledge and digital skills of teachers in pedagogical and didactic approaches, with the support of modern digital media, used in technologically enriched living conditions as well as in distance learning.

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