

Exploring the Opportunities and Obstacles of Incorporating Technology in Religious Education for Primary School Students

Evangelia Karakostantaki

Department of Preschool Education, University of Crete, Greece, eva_karakw@hotmail.com

Kyriakos Stavrianos

Department of Preschool Education, University of Crete, Greece, stavrian@uoc.gr

Nicholas Zaranis

Department of Preschool Education, University of Crete, Greece, nzaranis@uoc.gr

Michalis Linardakis

Department of Preschool Education, University of Crete, Greece, michalis@uoc.gr

The purpose of this research is to investigate the views of Primary Education students on the use of Information and Communication Technologies (ICT) in Education and their use in the Religious Studies course. Specifically, it investigates students' views on the use of digital tools, the use of Information and Communication Technologies for school lessons, the impact of the use of Information and Communication Technologies for Religious Education and their views on the teaching support of Information and Communication Technologies and the acquisition of knowledge in the Religious Studies course. To achieve these objectives, one hundred and fifty-seven respondents participated in the study, completing two Likert-type questionnaires. The sample which participated was comprised of ten classes attending the third grade of primary school in the prefecture of Heraklion, Crete. The present study was a quasi-experimental design with two groups, an experimental one and a control one. From these classes, we randomly assigned the control group ($n = 72$) and the experimental group ($n = 85$). Quantitative data were subjected to descriptive statistical analysis. The study's findings revealed that the integration of ICT as a means of teaching has not yet been implemented based on the responses of students in primary school. Also, they answered that the use of ICT would help them to follow their lessons and that they would like all school subjects to have activities with ICT. These findings align with prior research, suggesting that learners generally have positive attitudes toward the use of ICT. Regarding their responses to the use of ICT in the Religious Studies, there was a more positive view of the experimental group compared to their responses before the teaching interventions.

Keywords: information and communication technologies, religious education, students views, primary school

INTRODUCTION

The ever-increasing development of technology makes accessing and sharing knowledge more feasible and in a much faster way compared to older methods. The scope of Information and Communication Technologies (ICT) is dynamic and changing day by day with the creation of new technologies. Due to the increasing use of ICT in society, schools must rise to this challenge and integrate it dynamically into the school curriculum (Anderson, 2008; Gousiou & Grammenos, 2023; Pandolfini, 2016; Raptis & Rapti, 2007).

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Their introduction and use of ICT in educational practice should not be viewed in the light of a simple technological modernization (Lorenz, Eickelmann & Gerick, 2015). There are significant differences in the way ICT is designed and used in schools, differences that have implications for teachers' and students' attitudes toward ICT learning (Goodison, 2002; Maharaj-Sharma & Sharma, 2017; OECD, 2021). Digital literacy should not be seen as a separate set of skills, but as integrated among other skills and knowledge. For the smoother integration and use of ICT in education, changes are required in the Greek education system, complementing and expanding other teaching approaches and methods in all subjects (Gousiou & Grammenos, 2023; OECD, 2021; Voogt, Erstad, Dede & Mishra, 2013).

In Greece, while there has been a shift in teaching methods, these changes didn't align with the true essence of integrating ICT into education (Bourandas, 2005; OECD, 2021; Triantafyllidis & Mitropoulou, 2005). When it comes to teaching practice, educators typically utilize information and communication technology (ICT) not directly in educational activities, but rather as a tool for preparing their teaching materials (Liu, Toki & Pange, 2014).

In addition, the other issue that exists in Greek schools is that ICT is not used in the teaching of all school subjects (Bourandas, 2005; Korte & Hüsing, 2006; Liu, Toki & Pange, 2014; Palaiologou, 2016). In particular, it is observed that the development of technology is not consistent with its application in the field of primary school education, in social science subjects, such as the Religious Studies course (Miaz, Helsa & Febrianto, 2018).

Despite the positive effects of ICT in education, in research that has been done on the educational use of ICT, such as the research by Voogt, Erstad, Dede & Mishra (2013), it showed that the necessary knowledge bases are not provided to children and young people for their digital competences and are often not well implemented in educational practice. Also, the study by Chui, Chin & Wan (2024) showed that kindergarten students were unsatisfied with online learning. The problem was in learning effectiveness, and teachers have a share of responsibility for this as online learning should be improved.

But what is the view of Primary Education students regarding the use of ICT in the teaching of school subjects in general and especially for the Religious Studies subject? There is a lack of research that studies this issue. In a study of older students on the use of technology in education, students had positive attitudes toward its use. Specifically, students want to use technology for all their courses, such as science, math, and social studies (Kahveci, 2010). Another study that investigates the views of students of a secondary school in Trinidad on the effectiveness of ICT in teaching Science is the study by Maharaj-Sharma & Sharma (2017). The results showed that students enjoy ICT interventions in their lessons but point out that ICT loses its appeal when its use is arbitrary and poorly planned. In addition, in research by Bandarlipi (2024), the results showed that graduate students have proficient computer skills and are ready for technology-mediated learning. Still, there was a significant improvement in the student's performance in Biology after trying out blended learning and they were satisfied with the use of ICT.

Additionally, a survey of students' views on the use of online materials in English literature courses in Indonesia found that students were more motivated and had more positive attitudes towards using web-based materials than paper-based materials, books (Isnawati, 2017). In another survey by Beckman, Bennett & Lockyer (2014) explored the relationships Australian Secondary students have with ICT both at school and at home. The results showed that in school the use of ICT was minimal while in the home, the majority of students reported themselves and their siblings as the main users of technology. Also, frequent home use was for social and recreational purposes rather than educational purposes.

The research of Giavrimis (2020) explored the view of fifth grade students through a sociological approach on the impact of ICT on the learning process on the island of Lesbos. According to the

results, the majority of students answered that computers help them or motivate them in behaviors related to cognitive dimensions (diligence, performance, participation in the course) and less in their behavior. Finally, they answered that knowing and using computers helps them in the learning process and in collaboration with their peers.

In conclusion, according to the results of the Organization for Economic Co-operation and Development (OECD) (2021), the real contribution of ICT to teaching has not yet been realized, especially in the case of Greece. More specifically, the ICT familiarity questionnaire asked students whether they had used digital devices in the previous month during school lessons and how much time they spent using digital devices during in-class and out-of-class lessons for various subjects. On average across OECD countries, 37% of students reported that both teachers and students used digital devices during class in the past month, 25% reported that only teachers used them, 11% reported that only students used them and 26% reported that they did not use them at all. Referring to the case of Greece, according to the responses of Greek secondary school students, 26.4% of students reported that both teachers and students used digital devices during lessons in the last month, 17% reported that only teachers used them, 10.5% reported that only students used them and 46.1% reported that they did not use them at all. In this context, we investigate the views of third-grade primary school students regarding the knowledge and use of digital tools, the use of ICT in school lessons and in particular for the religious studies course, as there is a lack of research in this field and would add newer research data, which could better present the image of the modern Greek school.

LITERATURE REVIEW

Educational practices and ICT

Due to technological developments, there has been a significant change in the way ICT and its digital tools have gained a place in society and furthermore have the potential to enhance teaching (Gousiou & Grammenos, 2023; Voogt et al., 2013). The opportunity to learn digital skills in school is an important school practice to improve teaching and learning in digital environments. It seems that providing equal opportunities to learn digital skills at school could help reduce socio-economic inequalities and improve students' school performance (OECD, 2021; Voogt et al., 2013).

Nevertheless, the result of the course of the introduction and use of ICT in Greek education has certainly not confirmed the expectations that accompanied the initial planning for the fruitful integration of ICT in the teaching process. Some of the problems concern the lack of digital equipment, the ratio of students per computer as well as technical issues (Bourandas, 2005; Karakostantaki & Stavrianos, 2021; Palaiologou, 2016).

In practice, ICT provides the opportunity for quick access to resources, information and material. Teaching becomes multimodal by using texts, images, audio and video so that students are more active. The pedagogical dimension of ICT utilization is more visible in young students, as the foundations of all kinds of learning are created (Avgerinos, Kokkinos, Papantonakis & Sofos, 2007; Bitsakis, 2014; Mitropoulou, 2008; Mitropoulou & Stogiannidis, 2015). ICT is under the control of teachers and students as they create the information of the learning environment. They are not the message but the medium that shapes and conveys the message of learning. This difference must be understood and exploited by each teacher in order to use them in the best way and become more effective (Avgerinos et al., 2007; Mikropoulos, 2006).

In the context of the integration of ICT in schools there are factors that influence its use either at the school level or at the teacher level. However, there are no uniform determining factors in all schools. ICT adoption is a process that depends on the existence of a number of components that appear to different degrees in each school, and therefore different factors may constitute the limiting variable in the ICT adoption process. Factors for the successful adoption and diffusion of ICT are related to

school leadership, teachers' ICT attitudes and skills and technological infrastructure, such as lack of access to ICT and old devices (Lorenz et al., 2015; Pandolfini, 2016).

Among all the factors in the school environment, teachers are considered to have the greatest influence on the learning outcomes of their students (Chui, Chin & Wan, 2024; European Commission, 2019a; Lorenz et al., 2015). In most cases, the reluctance to integrate ICT into educational daily practices was attributed to a lack of digital skills and the management of each school (Pandolfini, 2016). Continuous professional development is key for teachers to integrate digital technologies into their teaching practices (European Commission, 2019b).

The challenge that educational systems continue to face is improving educational practices and leveraging digital technologies. To make use of digital technologies, schools need to support teachers' digital competence for pedagogical use, design innovative pedagogical approaches and provide digital equipment as well as better connectivity (European Commission, 2019a). In the school year 2017-2018 in the research prepared for the European Commission in Primary Education at the level of Greece only 2% of schools were connected and highly digitally equipped (i.e. with laptops, computers and cameras) while at the level of Europe it was 35% of schools (European Commission, 2019b).

According to the European Commission (2019a), the main challenge for the next decade is to improve learning outcomes at school because improving them affects people's chances of continuing to study, finding and keeping a job later in life, to cope with rapid technological changes and to evolve as citizens.

On a European level, targets have been set where they must be achieved by 2030 to ensure a comprehensive and sustainable digital transformation in all sectors of the economy. The Digital Economy and Society Index (DESI) scores and rankings for 2022 have been calculated and Greece ranks 25th among the 27 member states of the European Union. When it comes to students' digital skills, schools and universities often assume that their students are digitally literate due to the rapid development and use of technology, but it is becoming increasingly clear that students vary greatly in their use of technology and therefore also in their technological skills (OECD, 2021; Voogt et al., 2013). According to the human population of each country that has at least basic digital skills, Greece ranks 22nd out of the 27 EU countries, with a percentage of 52% (aged 16-74) (European Commission, 2022).

Equipping people with digital skills is a fundamental goal of Greece's digital transformation strategy. According to the European Commission (2022) the new textbooks will be available to students in 2023 and will be accompanied by digital resources and tools. Stepping up efforts to develop digital skills is essential to create an environment where everyone is empowered and feels digitally functional. The goal by 2030 is for 80% of the population of Greece to have at least basic digital skills in the EU.

Religious education with the contribution of ICT

Moral maturity is necessary for every person and in order to develop, the child needs to be properly groomed morally from an early age. For this to happen, religious education is necessary, as it helps in the development of the morals and personality of each student. In religious education, ICT helps students learn and enables them to consolidate and deepen their knowledge and skills (Kogoulis, 2003; Kosoko-Oyedeko & Tella, 2010; Mitropoulou, 2007, 2015b; Rerakis, 2015). The practical use of ICT in religious teaching can improve students' interest and increase creative thinking. ICT can help teachers in teaching, provide them tools to explain some points or procedures that are more difficult as well as support a distance education system (Lubis, Lampoh, Yunus, Shahr, Ishak & Muhamad, 2011).

The production and use of educational software and applications for the Religious Studies course enable students to interact with each other using technology (laptop, tablet, smartphone). ICT offers variety and flexibility and covers many ways of teaching and learning since it can be adapted according to the personal characteristics of the students. In the specific learning environment, the student is more active in building knowledge while the teacher has a consultative and facilitating character. In addition, the pedagogically correct use of ICT can significantly contribute to reversing the negative climate that some students have for the Religious Studies course (Vasilopoulos, 2008).

With the use of ICT, students will see the Religious Studies course from a different perspective. More specifically, they will find that religion is not something unknown and imposed but is about life itself. The course material is about understanding and interpreting religious events. The message of Christ for the salvation of the world and the truth of God's revelation is eternal and it is not right to change. What changes with the use of ICT are the means of transmitting the message during the teaching of the Religious Studies course (Mitropoulou, 2007, 2008, 2015b).

In order to support the use of ICT, it is important to upgrade the expertise and skills of each teacher and Theology teacher so that they can identify and overcome the various problems that may arise during teaching with ICT in the Religious Studies course (Lubis et al., 2011). Also, the role of teachers with the use of ICT is more complex compared to the traditional way of teaching, for this reason, the training of teachers in modern teaching methods is equally important.

The training of teachers and professors of Religious Studies in modern teaching principles can have an important role for the modernization of the course and the learning benefits of the students. What is needed on the part of the teachers is willingness and determination for this undertaking. In recent years, the integration of ICT in teacher training is necessary as the role of training is a means of improving the ability of Religious Education teachers with ICT (Miskiah, Suryono & Sudrajat, 2019).

According to the article by Ubani & Keränen-Pantsu (2018) the use of ICT and mobile technology with social networking media is still very low in Finnish school education and not all students (aged 14- 15 years) as they believe that mobile technology and social media are primarily for personal use and should not be leveraged in the educational efforts of religious education.

Then, the research of Miskiah, Suryono & Sudrajat (2019) studies the level of ICT integration in Islamic religious education in a religious training center in Indonesia. The results of the research are important as they showed that the participating teachers have already integrated ICT but were limited to the use of PowerPoint presentations while the availability of technological facilities is at a good level and there is no lack of resources or technological tools. ICT learning has not yet been fully implemented in education and the pattern of participants using the Internet is still limited to finding additional information about the material to be given, rather than being part of a new strategy for the learning system. The main obstacle is insufficient or non-participation in training and the attitude of teachers towards ICT.

The importance of integrating ICT in the teaching of the Religious Studies course is great because it makes learning more attractive and effective. According to the study by Karakostantaki & Stavrianos (2021), the results showed that the integration of ICT in the Religious Studies course helped the students who were taught with ICT to achieve greater learning benefits, as they showed a greater improvement than the students who were taught with traditional means method of teaching without technological tools.

After reviewing the literature, it was found that there is no equivalent research that has been applied to the third grade of primary school to investigate the views of students on the use of Information and Communication Technologies (ICT) in Education and their use in Religious Education and especially in young children, when the foundations for children's religious development are laid.

The purpose of this study is to contribute to a better understanding of the current status of students' views toward ICT use in Religious Studies course. Also, to augment a supply of publications, which are related to investigating views toward the knowledge and use of digital tools, use of ICT for school lessons, and the acquisition of knowledge in the religious course comparing the answers of the students of the two groups.

Our study aims to answer the following questions: a) What are the students' views toward the use of ICT in the Religious Studies course? and b) Was there any difference between the two groups in their views toward the use of ICT in the Religious Studies course?

METHOD

Research design

This research was conducted in two phases. In the first phase a Likert scale-type questionnaire with 15 questions was given at the beginning of October 2021 and in the second phase a Likert scale-type questionnaire with 20 questions was given at the end of December 2021. During this period a teaching intervention with ICT for teaching Religious Education was performed.

The present study was a quasi-experimental design with two groups, an experimental one and a control one. Ten classes from five public primary schools in Heraklion, Crete (Greece) participated in this study. From these classes, we randomly assigned the control group ($n = 72$) and the experimental group ($n = 85$).

Both groups at the same time period were given the Likert scale-type questionnaires to the students before the teaching interventions and after the completion of the teaching interventions. What we need to clarify is that in the control group, the students were taught the Religious Studies course using the traditional method without the use of ICT according to the curriculum of the Ministry of Education and Religious Affairs of Greece. While the students in the experimental group were taught the Religious Studies course using applications and software designed by the researcher on laptops based on the Greek primary school curriculum. Both groups were taught the sections concerning the parable of the Lost Sheep, the parable of the Prodigal Son, the importance of the feasts of the Saints and the Festival, the understanding of the Church year, the feasts of the Church year, as well as the life and the celebration of the Three Hierarchs/Cappadocian Fathers.

Participants

The study was carried out during the 2021–2022 school year in ten third-grade classes in five public primary schools located in the city of Heraklion on the island of Crete (Greece). The third grade of primary school was chosen as in this grade the teaching of the Religious Studies course officially begins according to the Greek curriculum. The sample of students who answered the questionnaires included a total of 157 students between the ages of 8 and 9, of which 72 were assigned to the control group and 85 to the experimental group. Of the 157 students, 86 were boys and 71 were girls. In the control group, the gender of the participants was evenly distributed (50% boys and 50% girls) while in the experimental group the proportion of boys was slightly higher (58.8% boys vs 41.2% girls). The research respected the rights of the participants. For the implementation of the research, the necessary permits were obtained from the Greek Ministry of Education and Religious Affairs, the Primary Education, the school principals, the teachers, and the parents of the participating students, as the study involved minors.

Research tools

More recent measurement instruments attempt to address the complexity of people's views about the nature of knowledge and learning by using paper-and-pencil questionnaires that are easier to score and

analyze. Measurement instruments vary considerably in the dimensions they measure, and researchers are urged to carefully select the one that best suits their purpose (Duell & Schommer-Aikins, 2001).

In the present research, a written questionnaire was used as a data collection tool for the opinion of 3rd grade students. The design of the questionnaire under discussion was based on the research of Giavrimis (2020), Isnawati (2017), Kubiato & Haláková (2009), Maharaj-Sharma & Sharma (2017), Rajabion, Wakil, Badfar, Naeini & Zareie (2019) and Vekiri (2010). Based on the above research and taking into account the questionnaires *Validating the Computer Attitude Questionnaire* (Knezek & Christensen, 1996) and *The learning impact of a virtual learning environment: students' views* (Barker & Gossman, 2013), the questionnaire of the students' views on ICT and the Religious Studies course, which was adapted to the target age. In terms of format, the questionnaire was divided into two sections. The first section concerns demographic information, ie, gender, age, teaching group and school attended and the second section consists of a series of questions/statements that students are asked to answer in order to gather the necessary research information. The questionnaire is the medium that converts the information given by the students into data, which will then be used for analysis and drawing conclusions.

In addition, the completion of the questionnaire was individual and anonymous for each student. The questionnaire includes closed questions/statements, where each question/statement is asked, and predefined response options are provided (Not at all, A little, A lot, Very much). Student responses to the questionnaire were given using a four-point Likert scale-type. The student respondents completed the questionnaire during the lesson and no exact time limits were imposed on the participating students. Therefore, students completed the questionnaire in 35–40 minutes before and after the teaching interventions.

The questionnaire given to the students about ICT before the teaching interventions in the second section consists of fifteen questions/statements and the questionnaire given to the students about ICT after the teaching interventions consists of twenty questions/statements. The first fifteen questions/statements are common to both questionnaires. The other five questions/statements that are only present in the questionnaire after the teaching interventions concern the teaching support and acquisition of knowledge in the Religious Studies course.

The material under investigation was the answers of the students of the third grade of the primary school of the prefecture of Heraklion, Crete, to the questionnaires of the 4-point Likert scale-type before and after the teaching interventions. The material was collected at the beginning of October and at the end of December 2021. The questionnaires took place in five different schools in the prefecture, where the students attend.

Regarding data analysis techniques were used two: descriptive statistics and correlation analysis. First of all, a descriptive analysis of the participants' characteristics and their ICT-related responses was carried out. Then, the two groups were compared before and after the teaching interventions.

FINDINGS

A set of analyses was conducted to determine the views of the 3rd-grade primary school students regarding ICT and Religious Education with the help of the SPSS 21 statistical analysis program. A total of 157 students answered the questionnaires before and after the teaching interventions. All the variables that were measured on the Likert scale-type were considered as categoric variables and also as constant variables and a comparison between the two groups has been made again, before and after the teaching interventions. The statistic control Pearson's χ^2 has been used for the comparison of the percentages and in the cases where the prerequisites were not fulfilled the Fisher's exact test was used.

Analysis of student views of the two groups (experimental and control) before the teaching interventions

The questionnaire given to the students of both groups before the teaching interventions consisted of fifteen questions. Their answers for each question are presented in detail below. Regarding the first question (Q.1) the majority of students stated that they know how to use a computer/tablet. The knowledge of computer/tablet use of the students did not differ statistically significant between the two groups ($t = -1.600$, $df=155$, $p=0.112>0.05$). The next question (Q.2) was if during their school lesson they use a projector in the classroom. From the answers of the students the use of the projector was average and the mean value of "projector use in class" was not statistically significantly different between the two groups ($t=0.011$, $df=155$, $p=0.991>0.05$).

In question (Q.3) the pupils were asked if computers are used in class, all the participants replied "Not at all" or "A little". The low usage of computers in the classroom is also confirmed by the average value of the variable ($M\pm SD:1.3\pm 0.4$). No differences between the two groups have been noticed ($t = -0.858$, $df=155$, $p=0.392>0.05$). For question 4 (Q.4) which asked if during the school lesson the pupils used a tablet, all pupils answered "Not at all". Also, the next question (Q.5) was if during their school lesson the teacher uses the internet. The usage of the internet in the lesson by the teacher was moderate according to the replies of the pupils. No differences between the two groups have been noticed ($t = -1.915$, $df=155$, $p=0.057>0.05$). For the question 6 (Q.6) "I would like all school subjects to involve ICT activities", the students responded positively in a moderate level. The mean value of the question did not differ statistically significantly between the two groups ($t=0.204$, $df=155$, $p=0.839>0.05$).

In the statement (Q.7) "The ICT would help me pay more attention in class", in total the students responded positively on a moderate level ($M\pm SD:2.5\pm 1.1$). The average value of the question was higher in the experimental group ($M\pm SD:2.6\pm 1.0$) compared to the control group ($M\pm SD:2.3\pm 1.1$), but this difference did not qualify statistical significance ($t = -1.500$, $df=155$, $p=0.136>0.05$). When students were asked if they use ICT for their school homework (Q.8), the majority replied negatively ($M\pm SD:1.6\pm 1.0$). The mean value of the question did not differ statistically significantly between the two groups ($t = -0.497$, $df=155$, $p=0.620>0.05$).

Furthermore, in the statement (Q.9) "I prefer activities which include looking up information in books, because it is an easier process than looking up material on the internet", the students responded positively on a moderate level. The mean value of the question is lower in the experimental group ($M\pm SD:2.2\pm 1.0$) while for the control group it was higher ($M\pm SD:2.7\pm 1.2$), making this difference statistically significant ($t=2.800$, $df=155$, $p=0.006<0.05$). In the statement (Q.10) "The things I am learning now about ICT will be useful to me when I grow up", the students responded positively ($M\pm SD:2.9\pm 1.0$) and no significant statistical differences have been noted in the percentages of these two groups ($t=1.491$, $df=155$, $p=0.138>0.05$).

When the students were asked if the use of ICT is important in the teaching of the Religious Studies (Q.11) their response was moderate ($M\pm SD:2.5\pm 1.0$). In the total of students, the percentages showed a significant statistical difference ($p<0.001$). But the mean value of the question did not differ statistically significantly between the two groups ($t = -1.375$, $df=155$, $p=0.171>0.05$). In the statement (Q.12) "The use of ICT in the classroom will make Religious Studies more interesting/fun/pleasant", the students responded positively on a moderate level ($M\pm SD:2.5\pm 1.0$). The mean value of the question did not differ statistically significantly between the two groups ($t = -1.274$, $df=155$, $p=0.205>0.05$). Next in the statement (Q.13) "When we use ICT in the classroom, it is difficult for me to work well with my classmates", the participants responded moderately ($M\pm SD:2.2\pm 1.1$). The mean values differed statistically significantly between the two groups ($t=3.193$, $df=155$, $p=0.002<0.05$).

In conclusion, in the statement (Q.14) "I think that I will have more ideas when ICT is used during the lesson of Religious Studies", the students responded moderately ($M \pm SD: 2.2 \pm 1.0$) and no statistically significant difference was observed in the mean value of the two groups ($t = -0.719$, $df = 155$, $p = 0.473 > 0.05$). The last question of the questionnaire (Q.15), was given to the students before the teaching interventions: "Can I concentrate better during the lesson, when the technological means are switched off/deactivated", the participants responded moderately ($M \pm SD: 2.7 \pm 1.2$). The mean value of the question did not differ statistically significantly between the two groups ($t = 1.158$, $df = 155$, $p = 0.249 > 0.05$). The view of the students before the teaching interventions as a whole and per group is presented in Table 1.

Table 1

Views of the students before the teaching interventions as a whole and per group

	Total	Control group	Experimental group			
	Mean \pm Std. Deviation			t	df	p-value
Q.1	3.5 \pm 0.7	3.4 \pm 0.7	3.6 \pm 0.7	-1.600	155	0.112
Q.2	2.6 \pm 0.8	2.6 \pm 0.8	2.6 \pm 0.9	0.011	155	0.991
Q.3	1.3 \pm 0.4	1.2 \pm 0.4	1.3 \pm 0.5	-0.858	155	0.392
Q.4	1.0 \pm 0.0	1.0 \pm 0.0	1.0 \pm 0.0	-	-	-
Q.5	2.3 \pm 0.9	2.2 \pm 0.6	2.4 \pm 1.1	-1.915	155	0.057
Q.6	2.7 \pm 1.1	2.7 \pm 1.2	2.7 \pm 1.0	0.204	155	0.839
Q.7	2.5 \pm 1.1	2.3 \pm 1.1	2.6 \pm 1.0	-1.500	155	0.136
Q.8	1.6 \pm 1.0	1.6 \pm 0.9	1.6 \pm 1.0	-0.497	155	0.620
Q.9	2.5 \pm 1.1	2.7 \pm 1.2	2.2 \pm 1.0	2.800	155	0.006
Q.10	2.9 \pm 1.0	3.1 \pm 1.0	2.8 \pm 1.1	1.491	155	0.138
Q.11	2.5 \pm 1.0	2.3 \pm 1.1	2.6 \pm 0.8	-1.375	155	0.171
Q.12	2.5 \pm 1.0	2.4 \pm 1.0	2.6 \pm 0.9	-1.274	155	0.205
Q.13	2.2 \pm 1.1	2.5 \pm 1.1	2.0 \pm 1.1	3.193	155	0.002
Q.14	2.2 \pm 1.0	2.2 \pm 1.1	2.3 \pm 0.9	-0.719	155	0.473
Q.15	2.7 \pm 1.2	2.8 \pm 1.2	2.6 \pm 1.2	1.158	155	0.249

Analysis of student views of the two groups (experimental and control) after the teaching interventions

The questionnaire given to the students of both groups after the teaching interventions consisted of twenty questions (the fifteen questions are common to those given before the intervention, while the other five questions concern the teaching support and the acquisition of knowledge in the Religious Studies course). Their answers are presented in detail for each question separately. In the first question-statement (Q.1) "I know how to use a computer/tablet", the majority of the students responded that it knows how to use a computer/tablet ($M \pm SD: 3.6 \pm 0.7$). The knowledge of computer/tablet use did not differ statistically significantly between the two groups ($t = -1.893$, $df = 155$, $p = 0.060 > 0.05$).

The second question-statement (Q.2) was the following "During the school lesson we use a projector". According to the replies of the students, the use of a projector during the lesson was moderate ($M \pm SD: 2.6 \pm 0.8$). However, the mean value of projector use in the lesson did not differ statistically significantly between the two groups ($t = 0.435$, $df = 155$, $p = 0.664 > 0.05$). The third question-statement (Q.3) was if during the school lesson there is the use of computers. After the intervention, differences were noted between the two groups and there is low use of computers in the class ($M \pm SD: 1.9 \pm 0.9$). Likewise, the mean values differed statistically significantly between the two groups with the experimental group having a higher mean value ($M \pm SD: 1.1 \pm 0.3$ in the control group and $M \pm SD: 2.6 \pm 0.5$ in the experimental group, $t = -20.215$, $df = 155$, $p < 0.001$).

In the fourth question-statement (Q.4) if during the school lesson tablets are used, all the pupils replied "Not at all" even after the teaching intervention. After the fifth question (Q.5) asked whether the teacher uses the internet during of the school lesson. The internet use remained in moderate levels ($M \pm SD: 2.3 \pm 0.8$) and significant statistical differences have been noted ($p < 0.001$). This difference seems to get a higher value from the average values of the answers from the experimental group ($M \pm SD: 2.4 \pm 1.0$ compared to 2.1 ± 0.5 from the control group, $t = -2.030$, $df = 155$, $p = 0.044$). In the sixth question (Q.6) pupils were asked if they wanted ICT activities in all school subjects, they responded positively ($M \pm SD: 3.1 \pm 1.0$). A statistically significant difference has been noted between the two groups and these differences are also seen in the average value of the question with the experimental group having a significantly higher value ($M \pm SD: 3.5 \pm 0.6$ compared to $M \pm SD: 2.7 \pm 1.2$ in the control group, $t = -5.321$, $df = 155$, $p < 0.001$).

In addition, for the seventh question-statement (Q.7) that asked "Would the ICT help me to pay attention during the lesson", the students responded more positively after the intervention ($M \pm SD: 2.9 \pm 1.0$). A highly statistically significant difference was observed between the two groups and the mean value of the question was significantly higher in the experimental group ($M \pm SD: 3.3 \pm 0.7$ compared to $M \pm SD: 2.4 \pm 1.1$ in the control group, $t = -6.905$, $df = 155$, $p < 0.001$). In the eighth question-statement (Q.8) the participants were asked if they use ICT for their homework, the majority responded negatively ($M \pm SD: 1.7 \pm 1.0$). The mean value of the question did not differ statistically significantly between the two groups ($t = -1.309$, $df = 155$, $p = 0.192 > 0.05$). The ninth question-statement (Q.9) was whether they prefer the activities involving looking up for something in book rather than searching on the internet. The students responded positively on a moderate level ($M \pm SD: 2.4 \pm 1.2$). The mean value of the question was lower in the experimental group ($M \pm SD: 2.2 \pm 1.1$ and 2.7 ± 1.2 in the control group) making this difference statistically significant ($t = 2.667$, $df = 155$, $p = 0.008$).

Furthermore, in the tenth question-statement (Q.10) which asked if "The things I am learning now about ICT will prove to be useful for me when I grow up", the students responded more positively after the intervention ($M \pm SD: 3.2 \pm 0.9$). No statistically significant differences were noted between the two groups ($t = -1.175$, $df = 155$, $p = 0.242$). In the eleventh question-statement (Q.11) the participants were asked if the use of ICT is important in the teaching of Religious Studies, their positive response increased after the intervention ($M \pm SD: 3.0 \pm 1.0$). Still, a strongly statistically significant difference has been noted in the mean value between the two groups ($t = -7.646$, $df = 155$, $p < 0.001$), with a higher accord in the experimental group ($M \pm SD: 3.5 \pm 0.6$ in the experimental group and 2.4 ± 1.1 in the control group). After the twelfth question (Q.12) "The use of ICT in the classroom will make Religious Studies more interesting/fun/pleasant", the pupils agreed more after the intervention ($M \pm SD: 3.1 \pm 1.0$). There was a strongly statistically significant difference ($t = -9.321$, $df = 155$, $p < 0.001$) in the mean value between the two groups ($M \pm SD: 2.4 \pm 1.0$ in the control group and 3.7 ± 0.6 in the experimental).

When the students were asked the thirteenth question-statement (Q.13), "When we use ICT in the classroom, it is difficult for me to work well with my classmates", the participants responded moderately ($M \pm SD: 2.1 \pm 1.0$). Correspondingly the mean value was significantly higher in the control group ($M \pm SD: 2.5 \pm 1.0$ compared to 1.7 ± 0.9 of the experimental group) and these percentages showed significant statistical differences between the two groups ($t = 5.657$, $df = 155$, $p < 0.001$). In the fourteenth question-statement (Q.14) the participating students were asked if they think that they will have more ideas when ICT is used during the lesson of Religious Studies. The students responded more positively after the interventions ($M \pm SD: 2.6 \pm 1.0$). The percentages differed statistically significantly between the two groups ($t = -5.254$, $df = 155$, $p < 0.001$) and the mean value was significantly higher in the experimental.

Moreover, in the fifteenth question-statement (Q.15) the participating students were asked if they can concentrate during the lesson when the technological means are switched off/deactivated, the participants responded moderately ($M \pm SD: 2.5 \pm 1.2$). These percentages showed significant statistical differences between the two groups ($t = 3.216$, $df = 155$, $p = 0.002$). When the students were asked in the

sixteenth question-statement (Q.16), if the use of ICT in Religious Studies would help them understand better the subject of each lesson/unit, their response was positive ($M \pm SD: 3.0 \pm 1.0$). The mean value of the question was higher in the experimental group ($M \pm SD: 3.6 \pm 0.6$ compared to a 2.3 ± 0.9 in the control group) and these percentages showed significant statistical differences between the two groups ($t = -10.040$, $df = 155$, $p < 0.001$).

Then, in the seventeenth question-statement (Q.17) the participating students were asked if the exercises done in class with ICT helped them to acquire knowledge more easily. The response of the students was positive ($M \pm SD: 2.9 \pm 1.0$). The mean value of the question was higher in the experimental group ($M \pm SD: 3.4 \pm 0.7$ compared to a 2.3 ± 0.9 in the control group) and the percentages differed strongly statistically between the two groups ($t = -8.170$, $df = 155$, $p < 0.001$). Next in the eighteenth question-statement (Q.18) the participating students were asked if their name day reminds them every year to follow the way of life of the Saint whose name they have. The response of the students was positive ($M \pm SD: 3.0 \pm 0.9$) and the mean value of the statement was higher in the experimental group ($M \pm SD: 3.3 \pm 0.9$ compared to a 2.6 ± 0.9 in the control group). The percentages differed statistically significantly between the two groups ($t = -5.467$, $df = 155$, $p < 0.001$).

In conclusion, in the nineteenth question-statement (Q.19) pupils were asked if they believe that on the celebration of the Three Holy Hierarchs/Cappadocian Fathers, students are also celebrating as they are their patron saints. The response of the students was positive and the mean value of the question was higher in the experimental group. Still, the percentages differed statistically significantly between the two groups ($t = -5.239$, $df = 155$, $p < 0.001$). In the twentieth question-statement (Q.20) the participating students were asked if they believe that during the preparation of the faithful for Easter, the parable of the Prodigal Son is read in Church, in order to teach us the value of forgiveness and repentance. The response of the students was positive and the mean value of the question was higher in the experimental group ($M \pm SD: 3.4 \pm 0.7$ compared to 2.6 ± 0.9 in the control group). The percentages differed statistically significantly between the two groups ($t = -6.347$, $df = 155$, $p < 0.001$). The views of the students after the teaching interventions as a whole and per group are shown on Table 2.

Table 2

Views of the students after the teaching interventions as a whole and per group

	Total	Control group	Experimental group	t	df	p-value
	Mean \pm Std. Deviation					
Q.1	3.6 \pm 0.7	3.4 \pm 0.7	3.6 \pm 0.6	-1.893	155	0.060
Q.2	2.6 \pm 0.8	2.6 \pm 0.8	2.5 \pm 0.8	0.435	155	0.664
Q.3	1.9 \pm 0.9	1.1 \pm 0.3	2.6 \pm 0.5	-20.215	155	<0.001
Q.4	1.0 \pm 0.0	1.0 \pm 0.0	1.0 \pm 0.0	-	-	-
Q.5	2.3 \pm 0.8	2.1 \pm 0.5	2.4 \pm 1.0	-2.030	155	0.044
Q.6	3.1 \pm 1.0	2.7 \pm 1.2	3.5 \pm 0.6	-5.321	155	<0.001
Q.7	2.9 \pm 1.0	2.4 \pm 1.1	3.3 \pm 0.7	-6.905	155	<0.001
Q.8	1.7 \pm 1.0	1.6 \pm 0.9	1.8 \pm 1.0	-1.309	155	0.192
Q.9	2.4 \pm 1.2	2.7 \pm 1.2	2.2 \pm 1.1	2.667	155	0.008
Q.10	3.2 \pm 0.9	3.1 \pm 1.0	3.2 \pm 0.8	-1.175	155	0.242
Q.11	3.0 \pm 1.0	2.4 \pm 1.1	3.5 \pm 0.6	-7.646	155	<0.001
Q.12	3.1 \pm 1.0	2.4 \pm 1.0	3.7 \pm 0.6	-9.321	155	<0.001
Q.13	2.1 \pm 1.0	2.5 \pm 1.0	1.7 \pm 0.9	5.657	155	<0.001
Q.14	2.6 \pm 1.0	2.2 \pm 1.1	2.9 \pm 0.7	-5.254	155	<0.001
Q.15	2.5 \pm 1.2	2.8 \pm 1.2	2.2 \pm 1.2	3.216	155	0.002
Q.16	3.0 \pm 1.0	2.3 \pm 0.9	3.6 \pm 0.6	-10.040	155	<0.001
Q.17	2.9 \pm 1.0	2.3 \pm 0.9	3.4 \pm 0.7	-8.170	155	<0.001
Q.18	3.0 \pm 0.9	2.6 \pm 0.9	3.3 \pm 0.9	-5.467	155	<0.001
Q.19	3.5 \pm 0.7	3.2 \pm 0.8	3.8 \pm 0.4	-5.239	155	<0.001
Q.20	3.1 \pm 0.9	2.6 \pm 0.9	3.4 \pm 0.7	-6.347	155	<0.001

Comparison of students' view before and after the teaching interventions

Comparing the views of the students of the two groups before and after the teaching interventions, it was found that the view on of the students of the experimental group differed significantly after the teaching interventions (Table 3). The observed mean value increased on most question-statements after the teaching interventions. The differences in the average values of the responses of the experimental group are presented in detail in Table 3.

Table 3

Views of the students before and after the teaching interventions in the experimental group

	Before the teaching interventions	After the teaching interventions			
	Mean \pm Std. Deviation	Mean \pm Std. Deviation	t	df	p-value
Q.1	3.6 \pm 0.7	3.6 \pm 0.6	-0.532	84	0.596
Q.2	2.6 \pm 0.9	2.5 \pm 0.8	1.717	84	0.090
Q.3	1.3 \pm 0.5	2.6 \pm 0.5	-18.753	84	<0.001
Q.4	1.0 \pm 0.0	1.0 \pm 0.0	-	-	-
Q.5	2.4 \pm 1.1	2.4 \pm 1.0	0.815	84	0.417
Q.6	2.7 \pm 1.0	3.5 \pm 0.6	-9.270	84	<0.001
Q.7	2.6 \pm 1.0	3.3 \pm 0.7	-8.368	84	<0.001
Q.8	1.6 \pm 1.0	1.8 \pm 1.0	-3.894	84	<0.001
Q.9	2.2 \pm 1.0	2.2 \pm 1.1	0.155	84	0.877
Q.10	2.8 \pm 1.1	3.2 \pm 0.8	-5.332	84	<0.001
Q.11	2.6 \pm 0.8	3.5 \pm 0.6	-10.693	84	<0.001
Q.12	2.6 \pm 0.9	3.7 \pm 0.6	-12.324	84	<0.001
Q.13	2.0 \pm 1.1	1.7 \pm 0.9	3.694	84	<0.001
Q.14	2.3 \pm 0.9	2.9 \pm 0.7	-7.656	84	<0.001
Q.15	2.6 \pm 1.2	2.2 \pm 1.2	3.978	84	<0.001

More specifically, the questions with a statistically significant difference were 3, 6, 7, 8, 10, 11, 12, 13, 14 and 15. According to the answers of the students of the experimental group, the use of computers increased during school lessons (Figure 1 & 2), as the students used laptops in the intervention. Then, the students of the experimental group answered that the use of ICT would help them to follow their lessons and that they would like all school subjects to have activities with ICT. The positive view is due to the use of ICT during the teaching intervention. Still, they also gave a more positive response to the use of ICT for school work at home and also to the fact that the things they are learning now about ICT will be useful to them when they grow up.

In addition, the students of the experimental group answered that the use of ICT is important in teaching the Religious Studies, that the lessons using ICT will make the Religious Studies more interesting, fun and pleasant, and that they will have more ideas when ICT is used in the Religious Studies. Still, it was found that after the teaching interventions, it is easier for them to cooperate with their classmates when using ICT in the classroom.

As far as the views of the students in the control group are concerned there was no difference after the teaching interventions. The only question in which a statistically significant difference was noted after the intervention was question three (Figure 1 & 2).

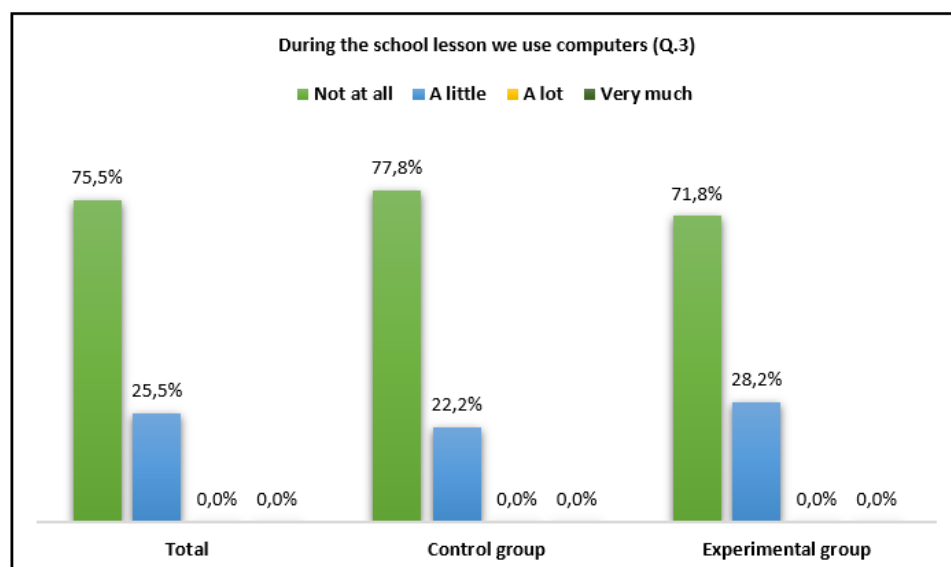


Figure 1
Views of the students before the teaching interventions

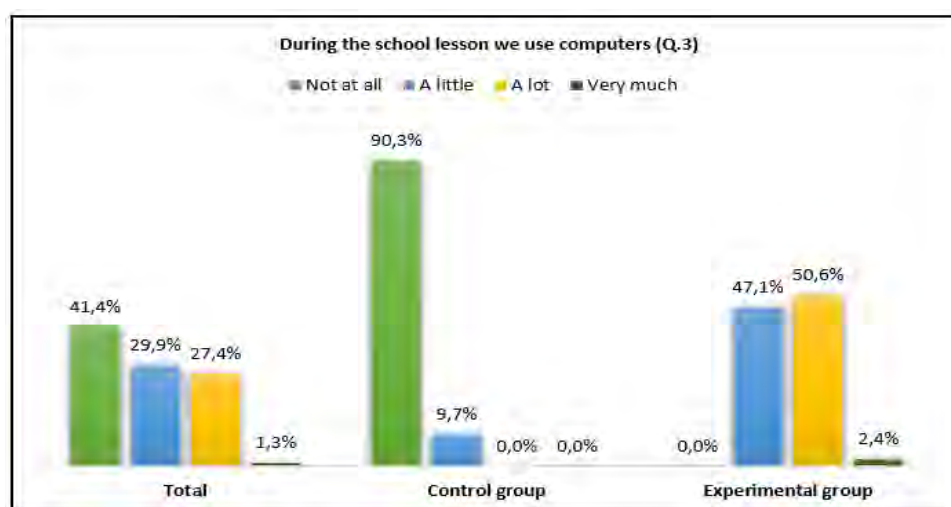


Figure 2
Views of the students after the teaching interventions

CONCLUSION, DISCUSSION AND SUGGESTIONS

With this research, we tried to investigate the students' views about ICT and its use in primary school and in the Religious Studies course. Based on the previous SPSS statistical analysis, all participating students know how to use a computer and tablet. Regarding the use of digital tools in the classroom overall, the students answered that the use of projectors in the lessons is little. In the case of computer use by students during lessons, the majority of students (74.5%) answered that they do not use a computer at all, while a small percentage answered that they use a little (25.5%). This changed after the teaching interventions for the experimental group according to their responses, as they were taught

the Religious Studies course using laptops. Regarding the use of tablets during the lessons, the students answered that they do not use them at all in their lessons and before and after the teaching interventions. Therefore, from the students' answers, it is observed that the use of digital tools in the classroom is quite limited. These results confirm other researches (Bourandas, 2005; Korte & Hüsing, 2006; Liu, Toki & Pange, 2014; Palaiologou, 2016).

Additionally, based on students' responses on whether they would like all school subjects to have ICT activities, students responded positively to a moderate level. The same applies to whether ICT would help them to attend their courses. Of course, after the teaching interventions there was a change in the experimental group as the students responded more positively. Also, overall, the students responded positively to a moderate degree to the statement "I prefer activities that require me to search in books, because it is easier as a process than searching for material that is on the internet". After the teaching interventions there was a change in the experimental group as the students answered more often "Not at all" or "A little" (31.8% and 31.8% respectively). Our findings are in agreement with similar research, such as by Giavrimis (2020), Goodison (2002), Isnawati (2017) and Rajabion et al. (2019).

Regarding the impact of using ICT for the Religious Studies, the students as a whole were asked whether the use of ICT is important in the teaching of the Religious Studies and whether they think they will have more ideas when ICT is used in this course. Participating students responded moderately before the instructional interventions. But after the use of ICT in the teaching of the religion course there was a change in the responses of the students in the experimental group as the students responded more positively.

Then, the participating students were asked if the use of ICT in Religious Studies would make them easily understand the topic of each lesson/module and if the exercises done in the classroom with ICT would help them gain knowledge more easily. Overall, their response was positive to both of these questions with the only difference being that the experimental group answered "Very much" with a percentage of 63.5% and 51.8% respectively while the control group with a percentage of 8.3% and 9.7% respectively. Still, regarding whether they have understood the content of the units taught during the teaching interventions in the Religious Studies, from the answers of the students it seems that they have understood the content of the lessons but the experimental group is the one with higher percentages in response "Very much" compared to control.

In the comparison of the answers of the views of the students of the two groups before and after the teaching interventions using ICT in the Religious Studies course, it was found that the views of the students of the experimental group differed significantly and more positively after the teaching interventions with ICT. Specifically, according to the answers of the students of the experimental group, the use of computers increased during school lessons. Still, the majority of the experimental group answered that the use of ICT would help them to follow their lessons and that they would like all school subjects to have activities with ICT, similarly the students of Kahveci (2010) research also answered. Then, they also gave a more positive response to the use of ICT for school work at home and also to the fact that the things they are learning now about ICT will be useful to them when they grow up.

Regarding their responses to the use of ICT in the Religious Studies, there was a more positive view compared to their responses before the teaching interventions. The majority of the experimental group answered that the use of ICT is important in teaching the Religious Studies, that the lessons using ICT will make the Religious Studies more interesting, fun and pleasant and that they will have more ideas when ICT is used in the Religious Studies. Our findings are consistent with similar research (Barker & Gossman, 2013; Maharaj-Sharma & Sharma, 2017; Vekiri, 2010).

Also, based on the responses of the students in the experimental group, it was found that after the teaching interventions, it is easier for them to cooperate with their classmates when using ICT in the

classroom. This finding also agrees with the research of Giavrimis (2020). Finally, to the question of whether they can concentrate in class when the technological means are turned off, the majority of students answered more negatively compared to before. In conclusion, regarding the opinion of the students of the control group, it did not differ after the teaching interventions. The only question in which a statistically significant difference was observed after the intervention was in question 3, where 90.3% of the students in the control group answered that they do not use computers at all during school lessons.

The results of the research show the need to change the way the educational process is implemented. In this research, we found that the integration of ICT as a means of teaching has not yet been implemented based on the responses of students in primary school. Religious teaching and learning could become more interesting if teachers used ICT during their lessons. There is a lot of free software available that they and their students can use to enable them to make learning more interesting and meaningful, as our research findings show that students have a positive view of ICT and want to use it of ICT during their school lessons and not only for the Religious Studies subject but for all subjects.

The above discussion should be referenced in light of some limitations of this study. One of the limitations of this study is that data was collected only from the prefecture of Heraklion of Crete (Greece). The results may not adequately describe students from other regions of Greece. There is one more limitation and that is generalization of this study which was limited specifically to participants attending in the third grade of elementary schools and any application of the findings should be done with caution.

Taking everything into account the data and limitations of this research, the main conclusion that can be drawn is that students have a positive view of ICT and that its use can enhance their interest and motivation for the Religious Studies course as well as for all school subjects. This research indicates the need to integrate ICT into the educational practice in all subjects of the school and not just the introduction of ICT into the teaching program and the provision of basic knowledge of computer operation through the Informatics course. The education system and, by extension, its teachers must follow the developments of society and adapt to them, in order to help their students, have all the resources and better integrate into modern society.

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