THE IMPACT OF THE USE OF ICT IN SECONDARY SCHOOLS IN THE MUNICIPALITY OF PRISTINA

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Abstract

This paper investigates the challenges and problems faced by teachers when using Information and Communication Technology (ICT) in secondary schools in the Municipality of Pristina. The integration of ICT in educational environments is a global effort aimed at improving learning and teaching processes. However, the effective implementation of ICT tools and resources faces numerous obstacles, especially in Pristina's diverse educational environments.

The purpose of this research refers to the specific obstacles that teachers face when using ICT for learning and teaching purposes.

These challenges include limited availability and network connectivity, inadequate ICT infrastructure in schools, lack of effective teacher training, constraints related to time management and perceived competence of teachers in using ICT.

To carry out this research, qualitative and quantitative data collection methods were used, through a questionnaire for teachers with teachers of 6 secondary schools in the municipality of Pristina, Analysis of curricula and programs for the way of integrating ICT in different subjects and the observation (view) of these institutions was made as to how well they meet the infrastructure conditions. First, the data was collected, then the data and answers were coded, the data was entered into the Excel program, then the data was processed in percentages, and finally the data was interpreted.

Furthermore, the research will provide insights into the extent to which teachers integrate ICT tools into their educational and learning processes. By examining the practice of teachers in Pristina, this research will provide a comprehensive understanding of the current landscape and potential for improving the integration of ICT in schools.

Ultimately, this research is not only essential to shed light on the challenges and problems related to the implementation of ICT in secondary schools in Pristina, but also to present solutions for their improvement.

The results of this research confirm the hypothesis raised above, where it appears that teachers have challenges and problems in using ICT during teaching.

***Keywords**: ICT, learning, teaching, curriculum, practice, challenges*

Abstrakt

Ky punim heton sfidat dhe problemet me të cilat përballen mësuesit gjatë përdorimit të Teknologjisë së Informacionit dhe Komunikimit (TIK) në shkollat e mesme në Komunën e Prishtinës. Integrimi i TIK në mjediset arsimore është një përpjekje globale që ka për qëllim përmirësimin e proceseve të mësimdhënies dhe të nxënit. Megjithatë, zbatimi efektiv i mjeteve dhe burimeve të TIK përballet me shumë pengesa, veçanërisht në mjediset e ndryshme arsimore të Prishtinës.

Qëllimi i këtij hulumtimi ka të bëjë me pengesat specifike me të cilat përballen mësuesit gjatë përdorimit të TIK për qëllime mësimdhënieje dhe të nxënieje.

Këto sfida përfshijnë disponueshmërinë e kufizuar dhe lidhjen e rrjetit, infrastrukturën e pamjaftueshme të TIK në shkolla, mungesën e trajnimit efektiv për mësuesit, kufizimet lidhur me menaxhimin e kohës dhe perceptimin e kompetencës së mësuesve në përdorimin e TIK.

Për realizimin e këtij hulumtimi janë përdorur metoda të mbledhjes së të dhënave cilësore dhe sasiore, përmes një pyetësori me mësuesit e 6 shkollave të mesme në komunën e Prishtinës, analiza e kurrikulave dhe programeve për mënyrën e integrimit të TIK në lëndë të ndryshme, si dhe është bërë vëzhgimi i këtyre institucioneve në lidhje me përmbushjen e kushteve të infrastrukturës. Fillimisht, të dhënat u mblodhën, më pas u koduan dhe u futën në programin Excel, të dhënat u përpunuan në përqindje dhe në fund u interpretuan.

Për më tepër, hulumtimi do të ofrojë një pasqyrë se sa shumë mësuesit integrojnë mjetet e TIK në proceset e tyre arsimore dhe të nxënieje. Duke ekzaminuar praktikat e mësuesve në Prishtinë, ky hulumtim do të ofrojë një kuptim gjithëpërfshirës të peizazhit aktual dhe të potencialit për përmirësimin e integrimit të TIK në shkolla.

Në fund, ky hulumtim është thelbësor jo vetëm për të hedhur dritë mbi sfidat dhe problemet lidhur me zbatimin e TIK në shkollat e mesme në Prishtinë, por edhe për të paraqitur zgjidhje për përmirësimin e tyre.

Rezultatet e këtij hulumtimi konfirmojnë hipotezën e ngritur më sipër, ku del se mësuesit kanë sfida dhe probleme në përdorimin e TIK gjatë mësimdhënies.

Fjalë kyçe: *TIK, të nxënit, mësimdhënie, kurrikul, praktikë, sfida*

1. Entry

The integration of ICT in school facilities is also an effort of state institutions, starting from the government, MAShTI, DKA, and even the institution itself, which is the school.

The implementation of ICT in schools faces various and difficult challenges starting from the state budget, the network extension, the training of teachers for certain fields since their qualification is based on only one field, while ICT includes different and wide fields while also being rapidly advanced.

Another big obstacle is the school infrastructure, which in many schools does not meet the ICT requirements to be implemented during teaching.

ICT developments during the years 2010-2020 in the schools of Pristina have made great changes in the educational process where now it is not a passive time, but an active time for teaching and learning of students during the learning process.

However, the introduction of ICT in education is not without challenges, as highlighted by Dawes, Dawes, (2001, p. 122): "problems arise when teachers are expected to make changes in unfavorable circumstances". Considering the importance of ICT in modern society and in the future of education, identifying the challenges in the integration of these technologies in schools is a necessary step for improving the quality of teaching and learning.

Balanskat, Blamire and Kefala (2006, p. 52) argue that, although teachers are aware of the value of ICT in schools, they face challenges in incorporating these technologies into their learning and development. In adapting the use of ICT in schools in Pristina, teachers and students are exposed to different perceptions and challenges.

In this paper, we will explore the impact of the use of ICT in secondary schools in the Municipality of Pristina. We will analyze how modern equipment and school applications have changed the dynamics of learning, how they have affected the relationship between students and teachers, and what challenges and advantages this change brings in the context of secondary education in the municipality of Pristina.

H0: There is a significant relationship between the level of availability of ICT resources and the success of using ICT in teaching in secondary schools in Pristina.

H1: There is a difference in the perception of high school teachers in Pristina regarding the problems and challenges of using ICT in education.

The methodology used in this research is the questionnaire with teachers who are directly related to the topic elaborated in this paper. First, the data was collected, then the data and answers were coded, the data was entered into the Excel program, then the data was processed in percentages, and finally the data was interpreted.

1.1. The positive impact of using ICT

The impact of the application of technology, of any kind, from the simplest to the most complex, has changed the way of teaching and learning. Along with the evolution of technology, teaching/learning theories have also evolved which form the foundations of the design of the learning process, so teachers have the task of developing new approaches to adapt these methodologies to increase learning results Yelland, N. (2001, p. 32).

1.2. The role of ICT in teaching

The role of ICT is no exception in the fields of education in our country, where in recent years it has been introduced even more into school curricula. With the beginning of the implementation of the Competency-Based Curriculum, the use of ICT has been introduced even more in the programs developed in schools. Here it is also worth mentioning the fact that this subject is already being applied in our schools starting from class IV (four) to continue further in all classes of MEST Pre-University Education. (2016, p. 23).

2. Literature review

Information and communication technologies (ICTs) are part of social and economic progress and our daily lives (Zhang & Aikman, 2007). In education, the use of computers and ICT began in the early 1980s, and some researchers point out that ICT will have a major impact on the future of education (Bransford, Brown, & Cocking, 2000; Grimus, 2000; Yelland - Yelland , 2001). Modern technology offers ways to improve teaching and learning in the classroom (Ghavifekr et al., 2014; Lefebvre, Deaudelin & Loiselle, 2006). Dawes (Dawes 2001) because new technologies have the potential to support education across the curriculum and enable effective communication between student and teacher in ways that have not been possible before.

2.1. Equipping schools with computers and their operation

according to foreign models

Equipping schools with computers and the way they are used is a factor that affects the interaction and cooperation of students, therefore the teacher must take into account the organization of classes when designing activities that are carried out with the help of educational technology. Since the teaching process is not the acceptance and distribution of knowledge, but also a very one-sided process which is realized with activities such as drawings, songs, games, sports activities, as well as through ICT. The placement of computers can be done in different ways, from placing them in computer cabinets to classrooms with one and many computers Kettunen, JS (2014, p. 65).

2. 2. Collaboration in a multi-computer classroom

In classrooms with many computers, more group activities can be done,, Classrooms with multiple computers have more advantages than a traditional computer cabinet.

In this type of classroom, where the computer monitors are embedded in the desks and the desks are organized in groups of three or four, students can see each other and the teacher more freely and communicate more freely"8. Unlike cubicles, students have space to work without the computer and use it only when or if they need it. In this environment, technology serves as a tool for all kinds of exercises (tasks), from creating websites to creating personal portfolios.

In these environments, teachers can provide computer-assisted assignments during which students work with their peers online or with classmates close to them Barnes, AL (2010, p. 45).

2.3 The method of interaction in the ICT cabinet

In a traditional classroom where learning takes place with the help of technology, students stay in their seats, or sit in front of the computer, which can block the view of those behind and they cannot see.

Although these cabinets are said to be a thing of the past, they are useful not only for individual student activities, such as using various programs, searching the Internet, writing letters, sending e-mails, and completing other activities, but also even to work on individual tasks as part of collaboration with another person online.

However, the limited opportunities to move and the difficulty to share the program make face-to-face collaboration difficult for more students, or students working in groups. These classes are better for individual learning

and for collaborations that are done online (through the Internet) Osmani, F. (2008, p. 22).

2.4 Equipping schools with assistive learning technology for students with special needs

The Program for the Development of Information and Communication Technologies (ICT) in the Republic of Kosovo aims to improve ICT capacities and promote opportunities for the use of ICT in various spheres of society. The program aims to support the development of the ICT sector and their integration into education, business, government and civil society.

The main areas of the ICT development program include:

Education: The program focuses on introducing ICT in education, providing educational resources and training teachers for the successful use of ICT in teaching.

Economic development: By supporting ICT companies and innovative projects, the program enables the business sector to benefit from the opportunities of the digital economy. The ICT sector can create new jobs and contribute to economic growth.

E-Governance: The ICT Development Program improves e-services and access to government services through the Internet. This enables more efficient management and more convenient access for citizens.

Civil society: The program aims to involve citizens in the use of ICT, improve digital literacy and support projects and initiatives that use ICT to solve social challenges.

The program for the development of ICT in the Republic of Kosovo advocates the integration of ICT as a means of continuous growth and improvement of the quality of life of citizens. In cooperation with different sectors and partners, the program aims to facilitate the process of transition to the digital society and meet the needs of younger generations Kefala (2006, p. 111).

2.5 Lesson development using technology

Balanskat, Blamire and Kefala (2006, p. 110) argue that, although teachers are aware of the value of ICT in schools, they face challenges in introducing these technologies into their learning and development. In adapting the use of ICT in schools in Pristina, teachers and students are exposed to different perceptions and challenges.

On the one hand, there are teachers who, with a positive attitude, engage in the use of ICT and see it as a tool for improving learning. They try to integrate ICT tools in their classrooms and use them to improve the educational process. This motivates students to be active participants in their learning and develop skills such as research, critical thinking and group work.

3. Methods

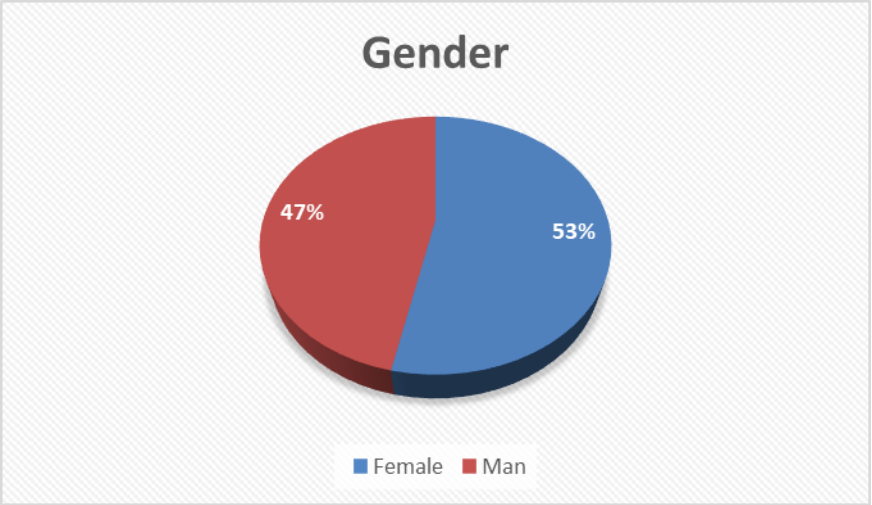
The research was carried out in ten (10) schools, it is a qualitative and quantitative research, which is a special way of collecting, organizing and analyzing data. Research instruments and questionnaires have been prepared, questionnaires have been distributed to schools and filled in by teachers.

In order to get the most comprehensive information and to have the most realistic overview of the situation, the research included high school teachers in Pristina. The sample size of teachers is 150 teachers of all profiles.

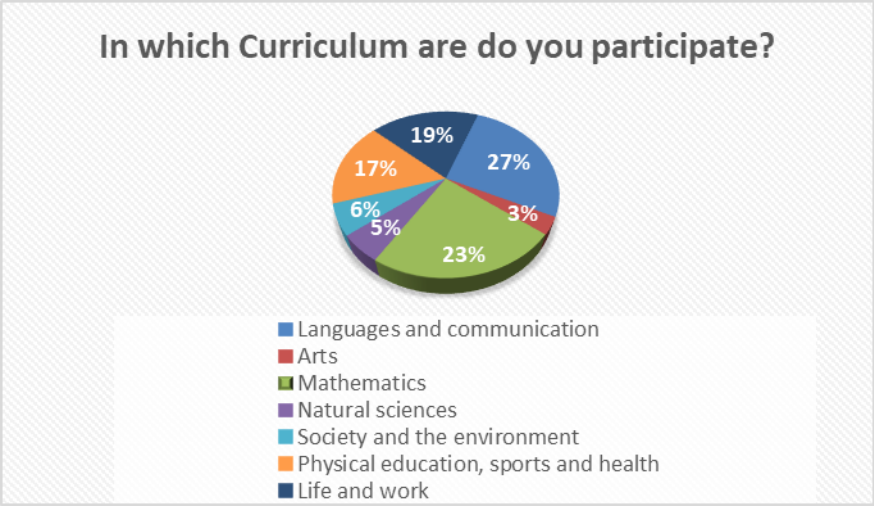
H1: There is a difference in the perception of high school teachers in Pristina regarding the problems and challenges of using ICT in education.

4. (Analysis), results and discussion

The questionnaire was designed with optional questions where through the optional questions we did a qualitative analysis of the data, through the applications we did their division and finally their interpretation. The study is related to the research of the ways of impact of ICT in the teaching and learning process.

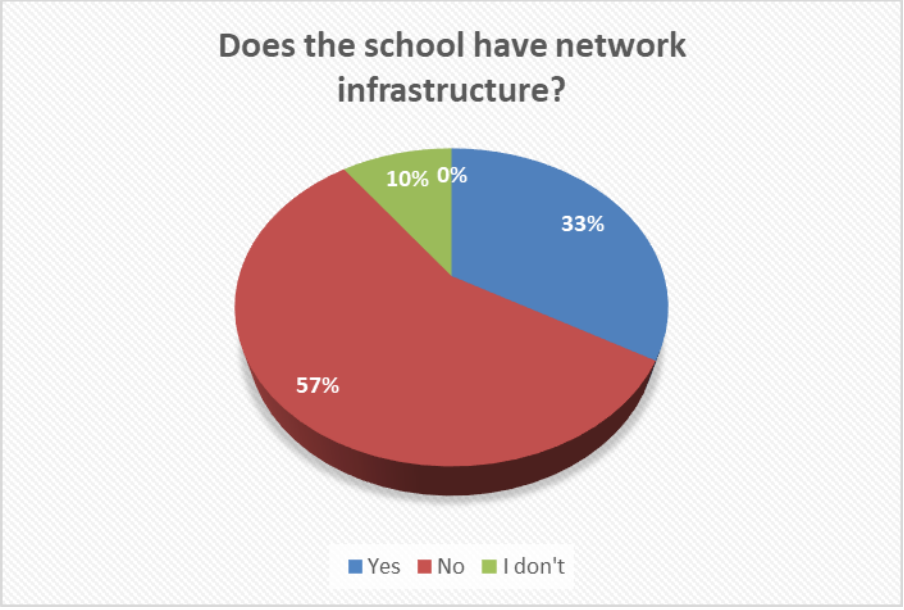


Graph 1. The graph shows the teachers participating in the questionnaire who answered about their gender, where out of 150 participants it turns out that 80 or 53% belong to the female gender while 70 or 47% belong to the male gender.

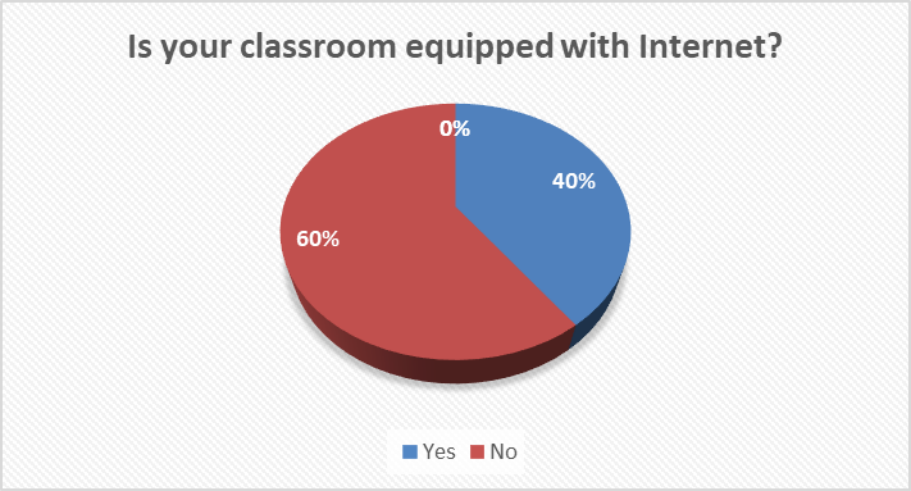


Graph 2. The graph shows the teachers of the subjects according to the curricular field were based on the questionnaire, it appears that most of them belong to the curricular field of languages and communication, this is also based on the number of hours the teachers have for their subject.

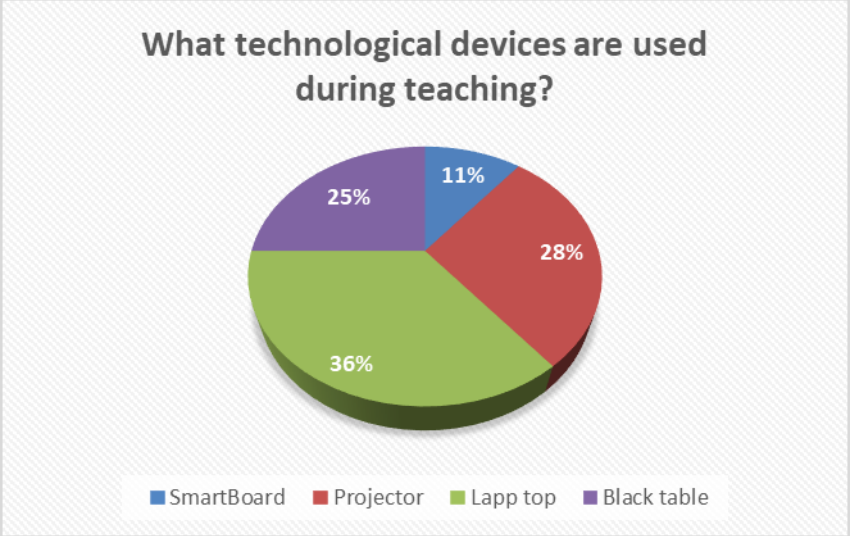
So, language and communication make up 40 participants or 27%, Arts make up 5 participants or 3%, Mathematics make up 35 participants or 23%, Natural Sciences make up 8 participants or 5%, Society and the environment make up 9 participants or 6 %, Physical education, sports and health make up 25 or 17% and Life and work make up 28 participants or 19%.



Graph 3. The graph shows the question of whether there is network infrastructure in the schools where they work and from this diagram these results emerge where 85 teachers or 57% answered that there is no network infrastructure, 50 teachers or 33% answered that they have network infrastructure in the schools where they work and 15 teachers or 10% have no knowledge of whether the school has network infrastructure or not.

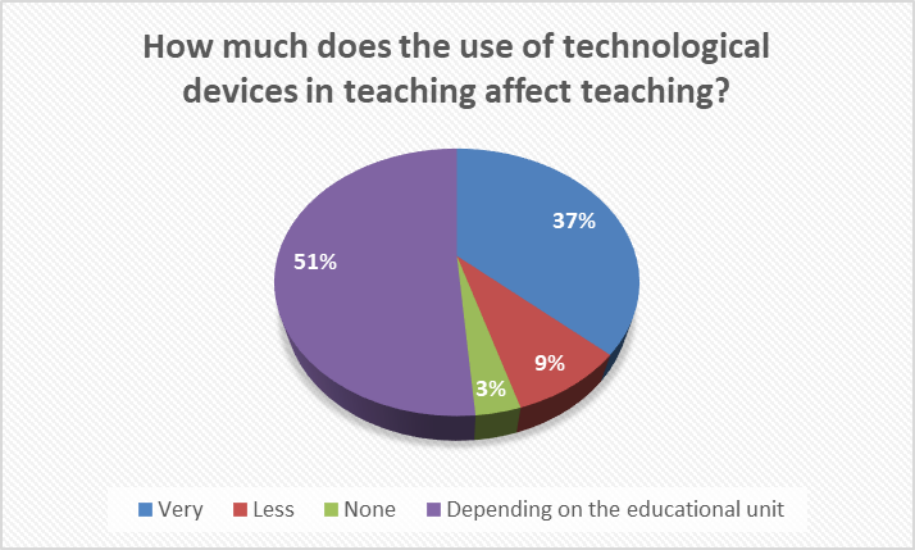


Graph 4. The graph shows the question whether the classroom where the teachers teach is equipped with the Internet? From this graph it appears that 90 teachers or 60% stated that they do not have internet in the classes where they teach and 60 teachers or 40% of them stated that they have internet where they teach.

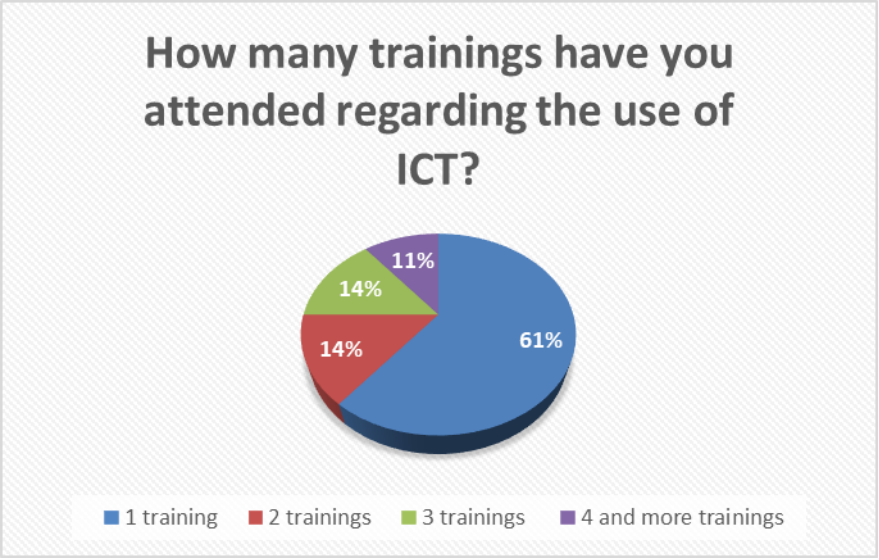


Graph 5. The graph shows the question of which technological devices are used during teaching, where from this graph it appears that 15 teachers or 11% use Smart Board, 40 teachers or 28% use projectors, 50 teachers or

36% use only laptops , and 35 teachers or 25 % only use the blackboard. This statistic occurs due to the conditions of the schools and the division of cabinets for subjects in teaching, since teachers are involved in all areas, the conditions of the school are not proportional in the division of equipment for subjects,



Graph 6. The graph shows the question how much does the use of technological devices in teaching affect teaching? Where from this graph it appears that for the option majority 55 teachers or 37% think that the use of technological devices has a lot of influence, 13 teachers or 9% think that it has a little influence, 5 teachers or 3% think about the option not at all and 77 or 51% think about the option depending on the learning unit, referring to the content of the learning unit or engagement in the classroom.



Graph 7. The graph shows the question How many trainings have you attended regarding the use of ICT? From this diagram it appears that 85 teachers or 67% are for the first option, 20 teachers or 16% are for the second option, 20 teachers or 16% are for the third option and 15 or 1% are for the 4th option which means that teachers do not have many trainings for the use of ICT.

5. Conclusion

In the recent period, the use of information and communication technology, in particular devices such as smartphones, has gained a significant impact on the lives of many people, especially in the school environment. In this context, the topic "Impact of the Use of ICT in High Schools in the Municipality of Pristina" can be seen as a challenge and opportunity for high school development and student performance.

At the outset, it is important to mention that the use of electronic devices and social platforms has brought significant changes in the way students communicate, learn and share information. On the one hand, this has enabled quick and easy access to various sources of information, improving in some cases their research and analysis skills. However, on the other hand, it has also brought challenges, such as the lack of caution towards the moderate use of technology and potential online security risks.

The impact of ICT, especially social networks, can have a significant impact on students' social relationships. Their intensive use can lead to

social isolation and a detrimental effect on the mental health of adolescents. Also, there are concerns about the spread of false information, bullying and reckless exposure of personal information on social networks.

For secondary schools in the Municipality of Pristina, it is essential to adapt to these changes and develop a sustainable strategy for the use of technology in teaching. Creating a safe and supportive environment, as well as encouraging the responsible use of technology, are important factors for the success of this strategy.

In conclusion, the use of ICT in secondary schools is a reality which can bring benefits and challenges. Improving students' digital skills and creating a responsible and safe school environment can positively affect their personal and academic development. However, it is important that society and the education system are prepared to manage potential challenges and to define a long-term approach for the successful integration of technology in education.

To face the fundamental changes that are challenging educational communities today, especially with the integration of ICT, it is more than necessary to design policies and strategies with long-term educational goals and new educational achievements.

According to the results, we were informed that some schools have ICT equipment and network infrastructure, but there are also schools that lack them and teachers make the solution according to their needs and possibilities.

The teachers have been trained but they are not enough skilled and it is recommended that they should follow other trainings because ICT has advanced much more than those who already have knowledge and also trainings about the possibilities of using different applications in the curricular areas where they teach the subject.

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