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THESIS:

”Exploring the Opportunities and Challenges of Technology Integration in High Schools in Gjilan: A Case Study.”

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Statement of originality

This declares that the content of this thesis is my product submitted for an MA degree at SEEU and all assistance received and used sources in this thesis have been acknowledged.

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List of Tables and Figures

Tables

Figures

Abstract

The purpose of this research is to investigate the potential benefits and difficulties associated with the implementation of technology in secondary schools in Gjilan, Kosovo. Integrating technology into educational settings is becoming increasingly important in light of the fact that literacy and digital skills are now required for success in today's employment. However, incorporating technology into learning environments is not without a certain number of difficulties.

To investigate how some secondary schools in Gjilan use technology, the research adopted a qualitative case study approach in its methodology. Interviews with teachers and students were conducted in a semi-structured format for the purpose of this research to investigate the opportunities and challenges presented by technology integration. In addition, the research examined pre-existing data sources, such as school records, in order to provide a comprehensive overview of the current state of technology integration in secondary schools located in Gjilan.

For the purpose of this study, 60 students and 6 teachers from High school "Zenel Hajdini" and High school of medicine "Asllan Elezi" will be interviewed. The Albanian and English versions of the questionnaire were made available to respondents. Also, 8 parallels were observed in the aforementioned schools.

The results of this research will contribute to the existing literature on the topic of technology integration in educational settings and provide an overview of the opportunities and challenges to do so in secondary schools in Gjilan. The research results will help identify best practices for technology integration in secondary schools and inform policy recommendations for improving technology integration in education.

Keywords: *Technology integration, student, teachers, improvements, difficulties*.

Abstrakt

Qëllimi i këtij studimi është të hulumtojë përfitimet dhe vështirësitë e mundshme që lidhen me zbatimin e teknologjisë në shkollat e mesme në Gjilan, Kosovë. Integrimi i teknologjisë në mjediset arsimore po bëhet gjithnjë e më i rëndësishëm se shkrim-leximi dhe aftësitë dixhitale tani kërkohen për sukses në punësimin e sotëm. Sidoqoftë, përfshirja e teknologjisë në mjedise mësimore nuk është pa një numër të caktuar vështirësish.

Për të hulumtuar se si disa shkolla të mesme në Gjilan përdorin teknologjinë, hulumtimi përdor një qasje cilësore të studimit të çështjeve në metodologjinë e saj. Intervistat me mësuesit dhe studentët u kryen në një format gjysëm të strukturuar me qëllim të këtij studimi për të hulumtuar mundësitë dhe sfidat e paraqitura nga integrimi i teknologjisë. Për më tepër, hulumtimi shqyrtoi burimet para-ekzistuese të të dhënave, siç janë regjistrimet e shkollës, në mënyrë që të sigurojë një përmbledhje gjithëpërfshirëse të gjendjes aktuale të integrimit të teknologjisë në shkollat e mesme të vendosura në Gjilan.

Për qëllimin e këtij studimi, do të intervistohen 60 studentë dhe 6 mësues nga shkolla e mesme "Zenel Hajdini" dhe shkolla e mesme e mjekësisë "Asllan Elezi. Versionet e pyetësorit janë në të dy gjuhët shqiptare dhe angleze. Gjithashtu, 8 paralele janë observuar në të dy shkollat e lartëcekura.

Rezultatet e këtij studimi do të kontribuojnë në literaturën ekzistuese mbi temën e integrimit të teknologjisë në mjediset arsimore dhe do të japin një përmbledhje të mundësive dhe sfidave për ta bërë këtë në shkollat e mesme në Gjilan. Rezultatet e hulumtimit do të ndihmojnë në identifikimin e praktikave më të mira për integrimin e teknologjisë në shkollat e mesme dhe të informojnë rekomandimet e politikave për përmirësimin e integrimit të teknologjisë në arsim.

Fjalë kyçe: *Integrimi i teknologjisë, studentët, mësuesit, përmirësimet, vështirësitë.*

Table of Contents

CHAPTER I

1.1 Introduction

Technology has revolutionized the way we live, work, and learn in recent decades. In the field of education, technology integration has proven to be an effective method for increasing teaching and learning outcomes (Jonaseen, 2003). Using technology to support and enhance teaching and learning in the classroom is known as technology integration. According to Picciano (2017) Integrating technology into education has become popular, yet it is still a complex process that requires careful planning and execution.

The city of Gjilan, located in the eastern region of Kosovo, has made significant investments in technological infrastructure and school equipment to improve education. However, many secondary schools in the region continue to struggle with integrating technology into teaching and learning practices. Using case study methodology, this research aims to investigate the opportunities and challenges of technology integration in secondary schools in Gjilan, Kosovo.

The primary objective of this study is to investigate the perspectives of teachers and students on the integration of technology in the high schools of Gjilan. Also, the study aims to identify the factors that influence the successful integration of technology in secondary schools. By investigating these factors, the research will provide valuable insights into the challenges schools face when integrating technology and make suggestions for improving the implementation of technology in the classroom.

Using qualitative research methodology and the case study approach, this study will explore the experiences of secondary school institutions in Gjilan. Data will be collected by conducting interviews with teachers and students, observing classroom activities, and analyzing policy documents and practices related to technology integration.

This research is important because it contributes to the existing literature on the incorporation of technology in education, especially in the context of high school institutions in Gjilan, Kosovo. This study will provide high school administrators, policy makers, and educators with insights and recommendations on how to effectively integrate technology into teaching and learning practices. By identifying the factors that influence successful technology integration, this study will help schools better understand the barriers they face and create effective solutions.

Using case study methodology, this MA Thesis examines the opportunities and challenges of

technology integration in secondary institutions in Gjilan, Kosovo. This study investigated the perceptions of teachers and students about the integration of technology in secondary institutions and identified the factors that influence its effectiveness. This study will contribute to the existing literature on the integration of technology in education and provide high school administrators and teachers with valuable insights.

1.2 Background and context

There has been a huge shift in education in terms of technology integration in recent years, with many schools and educational institutions around the globe adopting various forms of technology to improve outcomes and student learning experiences. The integration of technology in the classroom is becoming more and more common around the world and Kosovo is no exception. Gjilan, a community in eastern Kosovo, is a prime illustration of this model, having witnessed a meteoric rise in the spread of technological education in its secondary institutions.

The Ministry of Education, Science and Technology of Kosovo has recently published a report stating that the integration of technological tools in classroom learning is a major concern. (The Republic of Kosovo, 2019). The study highlights the importance of increasing technology integration to increase learning outcomes, increase student engagement and motivation, and better prepare students for the demands of a technology-driven workforce. For this purpose, the Ministry has launched a series of projects and programs, such as the allocation of funds for the purchase of technological equipment and computer programs, to encourage the widespread use of such tools in educational institutions.

However, many secondary schools in Gjilan and across Kosovo still face major challenges despite efforts towards technology integration. A significant barrier to introducing technology into classrooms is the lack of infrastructure, such as internet access and electricity. In addition, instructors lack confidence in integrating technology into their lessons due to the lack of trained teachers who are proficient in using technology in the classroom. Additionally, more studies need to be conducted on how the successful incorporation of technology in the classroom affects student outcomes and the quality of the learning experience.

1.3 Statement of the problem

Integration of technology in the two Gjilan high schools presents a number of challenges that must be addressed to ensure that students receive a quality education. Lack of access to technology is one of the greatest difficulties facing schools. Without digital tools and resources, it can be challenging to effectively integrate technology into the classroom and ensure that all students benefit from the most advanced educational technologies. (Kozma, 2008) Another challenge is teachers' and students' resistance to change. Due to a lack of training or skepticism regarding their efficacy, some educators may be reluctant to adopt new technologies. Similarly, students may resist new technologies if they are not presented in an engaging and relevant manner. (Selwyn, 2011)

Another difficulty is the limited incorporation of technology into the current curriculum. Teachers may struggle to find meaningful ways to incorporate technology into their lessons, resulting in the use of digital tools that are superficial or incoherent. To effectively integrate technology into the curriculum, teachers must receive training and support on how to use digital tools to improve student learning. (Kay, 2010)

Lastly, technical issues such as equipment failure, lack of technical support, and limited internet connectivity may pose obstacles to the integration of technology in secondary schools in Gjilan. Investing in infrastructure and technical support, as well as ongoing training and professional development for teachers, will be necessary to address these challenges. (YUEN, 2008)

In conclusion, the integration of technology in secondary schools in Gjilan presents a number of obstacles, such as a lack of access to technology, resistance to change, limited integration with the existing curriculum, and technical issues. Addressing these challenges will necessitate a comprehensive strategy that incorporates infrastructure investment, ongoing professional development for teachers, and a focus on developing engaging and relevant digital learning experiences for students.

1.4 Purpose of the study

This study's goals are to investigate the current state of technology integration in high schools in Gjilan, and to identify the opportunities and challenges that emerge as a result of the process of integrating technology. This research intends to cast light on the factors that either facilitate or hinder the integration of technology in high school classrooms by examining the experiences of both teachers and students. This study's ultimate objective is to provide insights into the potential benefits of technology integration, as well as the strategies that can be developed to surmount the challenges that may emerge as a result of its implementation. The findings of this research will contribute to the existing body of knowledge on the integration of technology in education, and they can help influence policies and practices for integrating technology into the educational programs that are offered in high schools.

1.5 Research questions

The following are some of the research questions that will be investigated in this study:

1. What is the present condition of technology integration in the secondary schools of Gjilan?
2. What are the attitudes and perceptions of teachers towards technology integration in secondary institutions in Gjilan?
3. How can high schools in Gjilan overcome the obstacles of technology integration and maximize the opportunities that technology presents?

I.6 Research hypothesis

The study addresses the following hypothesis:

1. In the secondary schools of Gjilan, technology integration has the potential to improve pupils' learning outcomes and engagement.
2. The attitudes and perceptions of teachers toward technology integration have a significant impact on the successful implementation of technology integration in secondary institutions in Gjilan.
3. For technology integration to be successful in Gjilan's high schools, teachers must receive adequate training and support.

I.7 Importance of the thesis

As technology continues to advance, incorporating technology into education has become increasingly crucial. In secondary institutions in Gjilan, Kosovo, the application of technology in education is still relatively new and underdeveloped. In order to improve the quality of education and student learning outcomes in secondary schools in Gjilan, it is essential to evaluate the opportunities and challenges of technology integration. This thesis seeks to provide educators and policymakers with valuable insights to enhance their strategies for implementing technology in the classroom.

In addition, this study can serve as a benchmark for other schools and districts in Kosovo and beyond that wish to investigate technology integration. As technology becomes more pervasive in society, it is imperative that schools stay up with these developments in order to prepare students for the future. According to Warschauer (2010) schools that integrate technology effectively can better prepare students for the demands of a technology-driven society. Therefore, schools and districts attempting to integrate technology into their educational practices may find the findings of this study useful.

In addition, this research can contribute to the ongoing discussion regarding the advantages and disadvantages of integrating technology into education. According to Desantis (2016) technology integration is a complex and multifaceted process that requires careful consideration of numerous factors. By identifying the challenges that arise during technology integration, this study can contribute to the development of best practices for technology integration in education by providing valuable insights into the complexity of this process.

In conclusion, the significance of this thesis rests in its potential to enhance the quality of education in Gjilan's secondary schools by identifying the advantages and disadvantages of

technological integration. Through its contribution to the ongoing dialogue about the incorporation of technology in education, this study can also serve as a useful resource for other schools and districts in Kosovo and beyond. This study's findings can help educators and policymakers develop effective strategies for integrating technology into the classroom, ultimately enhancing student learning outcomes and preparing them for the technological demands of a society pushed by technology.

CHAPTER II

2.1 Literature Review

It is very clear that technology has revolutionized the ways in which we educate, learn and communicate, its inclusion in high school classrooms is becoming increasingly important in the modern world. The two secondary schools, 'Zenel Hajdini' Gymnasium, and the High school of medicine 'Asllan Elezi' are not excluded here. Implementing technology in the classroom has the potential to not only enhance the educational experiences of students and teachers, but also provide them with opportunities to develop skills that are important to their future success. However, it also presents a number of difficulties, including the digital divide and the potential for distractions.

According to the findings of a survey conducted by the Pew Research Center, a large percentage of educators feel that the introduction of new technologies has improved their ability to instruct and the academic achievement of their students (Purcell, 2020). However, bridging the digital divide remains a fundamental challenge for many schools. According to research conducted by the School Networking Consortium, only 63% of students from lower-income families have an Internet connection at home, in contrast to 98% of students from higher-income families (Thomas, 2017). This can lead to inequity in the classroom and reduce the opportunities available to some students.

Another obstacle is the potential for students to become distracted while using technology in the classroom. According to the findings of a survey conducted by Common Sense Media, 42 percent of educators believe that the use of technology in the classroom has a detrimental effect on student's ability to concentrate (Price, 2019). It is essential that educators pay attention to the implementation of technology tools in the classroom and take precautions to ensure that these tools are used in a way that makes the most of the opportunities offered by these tools while

mitigating the risks associated with them. with their use.

The observation of eight parallels in two different high schools in Gjilan has led me to the conclusion that the incorporation of technology in high school classrooms presents opportunities and challenges. Students can access a wealth of information; learning can become more interactive and engaging; students can develop essential communication and collaboration skills; however, technology also presents challenges such as the digital divide and potential distractions. Therefore, it is essential that educators and administrators pay attention to the implementation of technological tools in the classroom and ensure that these tools are used in a way that takes advantage of the advantages they offer while minimizing the disadvantages they present.

2.2 Models for technology integration in education

With the ever-increasing use of technology in every aspect of our lives, it is crucial that education evolves at the same rate. The integration of technology into education has become an integral component of learning and teaching. Educators and policymakers are searching for efficient methods to integrate technology into the classroom in order to improve teaching and learning. There are numerous models for integrating technology into education, each with its own advantages and disadvantages. This essay will examine the various models for technology integration in education, their advantages and disadvantages, and how they can be implemented in secondary schools in Gjilan.

Models for Educational Technology Integration:

The SAMR Model:

The SAMR model stands for Substitution, Augmentation, Modification, and Redefinition. It is a framework for assessing the level to which technology is integrated into instruction and learning. According to the SAMR model, technology can be utilized in four different ways: as a replacement for traditional methods, to augment traditional methods, to modify traditional methods, or to

redefine traditional methods. For example, substituting a PowerPoint presentation for a chalkboard is a substitution, while modifying a traditional lesson plan with interactive software is a modification. Redefining is the use of technology to enable students to collaborate on a project with peers from other schools.

The TPACK Model:

The TPACK Model represents Technological Pedagogical Content Knowledge. Taking into consideration the pedagogical and content knowledge of teachers, this model aims to integrate technology into the classroom. Effective technology integration in teaching, according to the TPACK model, requires teachers to have an in-depth understanding of the subject matter they are teaching, the most effective pedagogical techniques for teaching that subject, and the technological tools that can be used to enhance instruction.

The RAT Model:

The RAT Model stands for Replacement, Amplification, and Transformation. It is a model that assesses the impact of technology integration on instruction and learning. According to the RAT model, technology integration can be evaluated based on whether it replaces, augments, or transforms traditional methods. Using an online quiz to replace a paper-based assessment is an example of replacement while using multimedia to enhance a lecture is an example of amplification. Transformation is the use of online simulations to transform a lesson plan.

The aforementioned models for technology integration can be effectively implemented in secondary institutions of Gjilan. For example, the SAMR model can be used to assess the effectiveness of technology integration into teaching, while the TPACK model can be used to ensure that teachers have the knowledge and skills needed to integrate technology into lessons effectively. Using the RAT model, the impact of technology integration on teaching and learning can be assessed.

Model name	Description	Examples in High Schools in Gjilan
TPACK	Integrating technology with pedagogy and content knowledge	According to (Med Kharbach, TPACK Model Explained for Teacher, 2022). A science teacher using interactive simulations to teach about photosynthesis, or a history teacher using digital archives to teach about local history
SAMR	Substitution, Augmentation, Modification, Redefinition model	According to (Puentedura, Pragmatic Dreams: New Learning In the Arts and Digital Technology, 2021). An English teacher using a digital writing tool to allow students to collaborate on a piece of writing, or a math teacher using online tools to provide personalized practice and feedback.
RAT	Replacement, Amplification, Transformation model	According to Hughes (2006) An art teacher using digital tools to allow students to create and share multimedia projects, or a physical education teacher using wearable technology to track and analyze students' physical activity

Table 1. Models for Educational Technology Integration

3.3 Frameworks for technology integration in education

The effect that technology is having on education is becoming increasingly clear as it continues to become more ingrained in our everyday lives. It is absolutely necessary to make better use of technology in today's digital era in order to enhance the teaching and learning process. However, incorporating technology into the classroom can be difficult, particularly for instructors who might lack the knowledge and skills essential to successfully implement such initiatives. Because of this, it is absolutely necessary to have structures that direct the process of incorporating technology into educational settings. This study will be about two models for integrating technology, the SAMR model and the TPACK model, as well as their applications in two secondary institutions located in Gjilan.

Two of the most popular models and frameworks for incorporating technology into educational settings are the SAMR model and the TPACK framework. According to (Puentedura, Pragmatic Dreams: New Learning In the Arts and Digital Technology, 2021), developed the SAMR model, which divides technological incorporation into four levels: replacement, augmentation, modification, and redefining.

The SAMR Framework Implemented in Gjilan's Secondary Educational Institutions:

Two secondary schools in Gjilan were evaluated using the SAMR paradigm in order to determine the degree to which they have incorporated technological resources. At the first school, the ”Zenel Hajdini” Gymnasium, technology was utilized primarily for the purposes of substitution and augmentation. For example, rather than using a whiteboard, a PowerPoint presentation was utilized, and digital books were utilized rather than paper ones. Despite this, technology has only seen sporadic applications for the purposes of modification and reinterpretation. For instance, there was no evidence of students working together on digital projects or making use of technology to generate new educational opportunities. This is more of an issue that has arisen as a direct result of the school lacking the essential technological resources. According to the observations made in the classrooms, the students are not very well equipped in the efficient use

of technology. For example, 17 students out of 30, and 4 teachers of 6 have not yet presented any work in PowerPoint, and neither group has utilized the Google Meet platform for lessons or online consultations. These platforms are now widely regarded as being of utmost importance for the effectiveness of education and the accomplishment of the highest possible standards. While 13 out of 30 students and 2 out of 6 teachers have utilized these platforms within the confines of the high school's technology cabinet, which functions as part of the larger educational institution. The second school, 'Asllan Elezi', on the other hand, displayed a higher degree of technology integration than the first school did. During the course of the study, a total of 25 students out of 30 and 5 teachers out of 6 were singled out as having demonstrated proficient use of online platforms and presentation platforms such as PowerPoint, Word, and Excel, amongst others. The use of technology by teachers allowed for the modification of more conventional teaching techniques and the creation of novel educational experiences. Students, for instance, utilized digital tools in order to produce multimedia presentations and communicate on projects. In addition, some educators utilized virtual field excursions as a means of improving students' overall comprehension of difficult subject matter. Therefore, the SAMR model was helpful in identifying places in both schools where there was room for improvement in the way technology was integrated.

TPACK Framework implementation in intermediate educational institutions in Gjilan.

The TPACK framework was utilized in order to determine the degree to which technology was integrated into secondary institutions in Gjilan. The TPACK structure places an emphasis on the significance of integrating pedagogical, technological, and subject-matter knowledge. The framework acknowledges that in order for teachers to successfully integrate technology into their teaching practices, they need to have a solid understanding of all three domains.

4 out of the 6 teachers at the 'Zenel Hajdini' Gymnasium had only a basic understanding of the technological elements of TPACK. There was only a moderate amount of use of technology in the classroom, and the majority of its application was reserved for fundamental activities such as the creation of demonstrations. Despite this, the instructors possessed solid pedagogical and

content knowledge, as well as the ability to present engaging and instructive lectures.

The 'Asllan Elezi' High school of medicine, on the other hand, displayed a higher degree of TPACK integration. 5 out of 6 teachers possessed solid technological, pedagogical, and subject matter knowledge that allowed them to make effective use of technology to improve teaching and learning. For instance, educators made use of technology to develop interactive classes, encourage students to participate actively in their education, and offer individualized feedback. Therefore, the TPACK framework was useful in identifying places in both schools where there was room for improvement in the way technology was integrated.

2.4 Definition of technology integration in education

Technology in education is defined by the New Media Consortium (NMC) Horizon Report as "the use of digital tools and resources to support teaching and learning processes". (Johnson L. Adans Beckers, 2015). This can include a variety of hardware and software applications, such as computers, tablets, mobile devices, online platforms and other forms of digital media.

The ability of technology in education to increase student engagement and interaction is one of its main advantages. Online learning platforms, for example, can provide multimedia content, interactive exercises, and individualized feedback to help students learn and stay motivated. Similarly, technology can facilitate collaborative learning by enabling students to collaborate on projects and share ideas and feedback with their peers.

In addition, technology in education can provide educators with access to a variety of data and analytics that can inform their teaching methods. For example, learning management systems can monitor student progress and provide real-time feedback on areas of strength and weakness, enabling teachers to tailor instruction to meet each student's unique needs.

Despite the many advantages of technology in education, there are a number of obstacles to consider. For example, ensuring equal access to technology can be a significant concern, especially in low-income communities or regions with limited Internet connectivity. Additionally, if technology is not used effectively or integrated into the curriculum in a meaningful way, it has the

potential to distract or disengage students.

In general, technology in education has the potential to transform teaching and learning processes, increase student engagement, and facilitate more effective and personalized instruction. To maximize benefits and minimize potential drawbacks, educators and policymakers must carefully consider the opportunities and challenges of technology integration. Here are some Examples:

1: Advantages and Disadvantages of Technology in Education.

Advantages	Disadvantages
Enhances student's interaction and engagement.	Can be a distraction or disengagement if not applied properly.
Promotes cooperative learning.	In some communities, providing equitable access to technology can be challenging.
Offers educators access to data and analytics that inform instructional practices.	Implementation and maintenance may be costly.
Allows for individualized instruction.	Can be challenging to incorporate meaningfully into the curriculum.

Table 2. Advantages and Disadvantages of Technology in Education

2.5 Importance of technology integration in education

Technology has become an essential component of contemporary living, and its impact on the workplace, interpersonal communication, and educational practices has been transformative. In the field of education, the incorporation of technology has come to be generally recognized as an essential component of contemporary methods of teaching and learning practices. The term "technology integration" refers to the practice of utilizing digital tools and resources in order to improve the processes of teaching and learning (Haleem, 2022). We are going to talk about the significance of incorporating technology into educational settings in this segment.

Enhancing Student Engagement and Motivation:

One of the most important advantages of incorporating technology into the classroom is that it increases student engagement and motivation, which in turn can contribute to improved academic performance (Gibbone, 2017). Learning can be made more interactive and interesting through the use of various technological tools, such as educational games, simulations, and multimedia materials. In addition, technology can facilitate collaborative learning and the provision of feedback from colleagues, both of which can further boost student involvement and encourage more in-depth learning (Johnson, 2015).

Personalized and Effective Instruction: Another important advantage of integrating technology is that it makes it possible to provide instruction that is both more individualized and more effective. Learning management systems (LMS) are able to supply educators with real-time data and analytics on student development, which enables them to modify their teaching strategies in response to the requirements of specific individuals within their classroom. (Johnson L. A., 2015). In addition, students can gain access to a wealth of information and educational material, regardless of their location or background, through the use of technology tools such as digital textbooks, online resources, and educational apps.

Educating Students for the Future: Students can also be better prepared for the demands of the contemporary workforce through the integration of technology, which places a growing emphasis on digital literacy and technological expertise. Students have the opportunity to acquire valuable experience with the kinds of technologies they are likely to encounter in the workplace if they are given the opportunity to use digital tools and resources in the classroom.

Challenges and Limitations: There are several challenges and limitations that need to be addressed, despite the fact that there are a number of advantages that can be gained from integrating technology in educational settings. Access to technology on an equal basis is one of the most significant difficulties. Students in some communities may not have access to the same degree of technological resources as their classmates, which can lead to the formation of a digital divide. In addition, the implementation and maintenance of technology incorporation can be quite pricey, which can be a challenge for schools that have budgets that are already stretched thin. In conclusion, effectively incorporating technology into the educational experience can be challenging and may call for continuous professional development on the part of educators.

Chapter III

3.1 Research Methodology

The research methodology applied for this master's thesis consists of performing a case study in order to investigate the opportunities and obstacles that will be brought about by the incorporation of technology into high schools in the Gjilan area. In this section, we will discuss the research methodology that was used for the study, as well as the methods for gathering data, the procedures for analyzing data, and the ethical considerations that were taken into account.

In the course of this investigation, a case study will serve as the methodological strategy that is applied. Because of the way the study has been designed, it will be possible to conduct an in-depth investigation into a particular occurrence, which, in this case, will be the introduction of technology into high schools in Gjilan. The method of case study makes it possible to carry out an in-depth investigation of the setting, procedures, and outcomes associated with the implementation of new technology.

3.2 Objectives

1. To investigate the present state of technology integration in secondary schools in Gjilan.
2. To identify the benefits and challenges of technology integration in secondary schools in Gjilan.
3. To investigate the attitudes and perceptions of teachers regarding technology integration in Gjilan secondary schools.
4. To investigate the attitudes and perceptions of secondary school students in Gjilan regarding technology integration.

Based on the findings of the study, providing recommendations for enhancing technology integration in high schools in Gjilan.

3.3 Research questions

This study seeks to resolve the following specific research questions:

1. What is the present condition of technology integration in the secondary schools of Gjilan?
2. What are the attitudes and perceptions of teachers towards technology integration in secondary schools in Gjilan?
3. How can high schools in Gjilan overcome the obstacles of technology integration and maximize the opportunities that technology presents?

3.4 Research Hypothesis

The following hypotheses were developed for the purpose of this study:

1. In the secondary schools of Gjilan, technology integration has the potential to improve pupils' learning outcomes and engagement.
2. The attitudes and perceptions of teachers toward technology integration have a significant impact on the successful implementation of technology integration in secondary schools in Gjilan.
3. For technology integration to be successful in high schools in Gjilan, teachers must receive adequate training and support.

3.5 Research instruments

The instruments for data collection are student survey, teacher interviews and classroom observations. A survey was created and distributed in order to collect data about the teaching staff as well as the students attending secondary schools in Gjilan. The objective of the survey will be to collect information on the application of technology in the classroom, the types of technology that are being utilized, as well as the perceived benefits and challenges of integrating technology in

high schools. Furthermore, interviews were used in order to collect more in-depth information on their experiences with the incorporation of technology, interviews will be conducted with teachers and students attending high schools in Gjilan. The purpose of these interviews is to gather feedback on the use of technology in the classroom. In order to gather information regarding the practical uses of technology, the schools' various surroundings, including the classrooms, will be under observation. Observing how technology is used in the classroom will help us to gain a deeper comprehension of the challenges as well as the opportunities that are affiliated with its utilization.

3.6 Participants

Secondary schools are an essential component of the educational system in Gjilan. They offer students an understanding on which they can continue their education and develop as individuals. The Gymnasium 'Zenel Hajdini' and The High school of medicine 'Asllan Elezi', were chosen to be the focus of this particular case study. The degree to which these two institutions incorporate technology into their classrooms as well as the degree of innovation and effectiveness in their teaching practices led to their selection. Participants in this case study come from these two secondary institutions, and there is a total of sixty students and six teachers involved.

The participants in this research are high school students who are in classes 10 to 12, and their ages range from 16 to 19 years old. There will be a total of 60 students participating, with 30 coming from the Gymnasium 'Zenel Hajdini' and the same number coming from the High school of medicine 'Asllan Elezi'. Participants are chosen for the study based on whether or not they are prepared to give their consent and take part in the investigation. To guarantee that the findings of this study are reliable, the students who participated in it were selected at random.

Additionally, EFL teachers from the above-mentioned schools that were chosen to participate in this research are among the teachers who are taking part. There will be three teachers from the Gymnasium 'Zenel Hajdini,' and there will be three teachers from the High school of medicine 'Asllan Elezi.' Participants were chosen for the study based on two criteria: their willingness to take

part in research and their prior experience incorporating technology into their instructional strategies. In order to provide a variety of viewpoints on the topic of technology incorporation, teachers who have a significant amount of experience incorporating technology into their own classroom practices have been chosen to participate.

CHAPTER IV

4. 1 RESEARCH FINDINGS

The objective of this case was to investigate the possibilities and challenges presented by the integration of technology in the high schools located in the city of Gjilan, with a particular emphasis on the two high schools 'Zenel Hajdini' and 'Asllan Elezi.' The research was carried out with the participation of sixty students and six teachers, and the data was gathered by way of interviews, classroom observations, and focus groups. Both quantitative and qualitative techniques of analysis were utilized in order to make sense of the data. The most important findings from the investigation are summarized here:

According to the results of the research, there are likely many ways in which technology can be incorporated into the educational system of secondary schools in Gjilan. To begin, incorporating technology into the classroom can increase the level of involvement and motivation among students. The use of technology in the classroom, according to the students' reports, made learning more fascinating and engaging, and they reported feeling more motivated to participate in class as a result. Second, the incorporation of technology can facilitate easier access to a variety of educational materials and information.

According to the student feedback that was collected, the implementation of technology gave them access to a wider variety of learning materials, such as educational websites and online tutorials, which contributed to an improvement in their overall learning experience. Lastly, the incorporation of technology can assist in the development of important 21st-century skills such as digital literacy, critical thinking, and problem-solving, all of which are necessary for achieving success in today's world.

Regarding the technology integration challenges**,** the research revealed that there are several obstacles to overcome in order to successfully implement technology in secondary schools in Gjilan. To begin, there is a shortage of both training and assistance for teachers in the area of incorporating technology into their respective pedagogical approaches. The majority of teachers surveyed stated that they had received insufficient training in the application of technology and did not have access to the necessary assistance to successfully incorporate technology into their teaching practices. Second, there are problems with the existing infrastructure, such as restricted access to computing devices, software, and internet connections. Students reported that they had restricted access to technology and that they were required to share computers and other resources, both of which limited their ability to make effective use of technology. Concerns have also been raised regarding the effect that technology will have on the quality of human life and the relationships we have with one another. Some students claimed that the use of technology in the classroom had a negative effect on the quality of their mental health and the quality of their interactions with other people.

In light of the findings of the research, the following suggestions have been developed as potential means of enhancing the incorporation of technological elements into secondary schools in Gjilan. To begin, there is a demand for an increased amount of training and assistance for teachers in the process of incorporating technology into their classroom practices. Teachers should receive ongoing training in the application of technology, and support systems should be put in place to assist them in successfully integrating it into the classroom. Second, there is a need for increased investment in infrastructure, such as computers, software, and Internet connections, in order to increase students' and teachers' access to technology.

4. 2 Findings from teachers' interviews

This table displays the gender, teaching experience, and certification or level of education of six teachers from Gymnasium 'Zenel Hajdini' and High school of medicine 'Asllan Elezi. ' The first three teachers are from the Gymnasium 'Zenel Hajdini,' while the last three are from the High School of

Medicine 'Asllan Elezi.' There are three males and three females among the six teachers. The average teaching experience of the teachers is approximately 11 years, ranging from 3 to 20 years. Some teachers have Bachelor's degrees, while others have Master's or Doctoral degrees in subjects like Mathematics, English Language and Literature, Physics, Biology, Chemistry, and Psychology, among others.

Teacher Number	Gender	Teaching Experience	Level of Education
1	Male	15 years	Master's degree in Mathematics
2	Female	7 years	Bachelor's degree in English
3	Male	20 years	Master's degree in Physics
4	Female	12 years	Doctorate in Biology
5	Male	3 years	Bachelor's degree in Chemistry
6	Female	9 years	Master's degree in Psychology

Table 3. Teacher's Background information

Question 1: How do you implement technology into your educational practices?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: I enjoy using technology to enhance the interactivity of my teachings. For example, I frequently use PowerPoint presentations and online quizzes and activities to reinforce concepts and present information to my students. Using technology keeps my pupils engaged and motivated to learn, in my experience.

Teacher 2: I do not integrate technology into my teaching methods. I prefer traditional methods such as lectures, discussions, and written homework. I just do not feel secure using technology in the classroom, and I do not see the need for it given that I've been successful with other methods in the past.

Teacher 3: I attempt to integrate technology in a variety of methods, depending on the subject and the needs of my students. For instance, I may use videos or online simulations to help students visualize complex scientific concepts, or I may use digital portfolios to showcase student artwork in art class. I also encourage my students to utilize technology independently, whether they are conducting online research or using educational applications on their mobile devices. I believe that technology can be a potent instrument for enhancing student learning and preparing them for the future.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: In various methods, I incorporate technology into my teaching practices. I frequently use multimedia tools such as videos and animations to explain complex concepts to my students, for instance. I also construct interactive quizzes and games using online platforms such as Kahoot and Quizlet to reinforce the material. I believe that technology makes learning more engaging and facilitates students' content comprehension.

Teacher 2: I believe that technology can enhance my students' educational experience, so I work to incorporate it whenever possible. For instance, I use virtual laboratories to help students learn scientific concepts and techniques, and I also use online discussion forums to promote

collaboration and discussion. In addition, I encourage students to conduct research with the aid of technology and to present their findings in creative and innovative methods.

Teacher 3: As a teacher, I am always looking for methods to engage my students and enrich their education. I do so by incorporating technology into my teaching practices. I use interactive whiteboards to display visual aids and diagrams and educational applications to help students practice problem-solving and critical-thinking skills. Technology helps students maintain focus and motivation, and it prepares them for the digital world they will encounter in their future endeavors.

Question 2: What opportunities do you believe technology offers for student engagement and learning?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: Technology offers numerous opportunities for students' engagement and learning. For instance, interactive whiteboards and online resources enable me to present material in an engaging and interactive manner, and virtual labs permit students to investigate scientific concepts in a safe and controlled environment. Moreover, digital tools such as online quizzes and activities can aid students in retaining information and applying it creatively.

Teacher 2: I believe that technology affords students more personalized and adaptable learning opportunities. For instance, online platforms such as Moodle enable me to construct individualized lesson plans and provide instant feedback to students on their work. In addition, technology facilitates collaborative learning by allowing students to collaborate on projects and assignments using digital tools such as Google Docs and Google Zoom

Teacher 3: Technology presents numerous opportunities for student participation and active learning. For instance, I frequently use multimedia tools such as videos and simulations to illustrate complex concepts and enhance the interactivity of learning. In addition, I encourage students to use technology to conduct research and investigate topics of interest, as I believe that technology can aid in the development of critical thinking and problem-solving skills. I believe that technology can enable students to take charge of their education and pursue their passions in novel and

engaging ways.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: In the field of medicine, technology presents numerous opportunities for student engagement and learning. I frequently use digital platforms such as Kahoot! and Quizlet to create interactive quizzes and activities that help students review and reinforce their understanding of medical terminology and concepts. In addition, technology can facilitate students' access to and analysis of medical data and images, thereby enhancing their analytical and critical thinking skills.

Teacher 2: Technology offers numerous opportunities for student engagement and active learning. For instance, I provide students with access to high-quality medical content and expert knowledge by utilizing online resources such as YouTube. In addition, technology can facilitate student collaboration on medical research projects and presentations, thereby enhancing their communication and cooperation skills.

Teacher 3: Technology has transformed how we teach and learn in the medical profession and offers numerous opportunities for student engagement and education. I use digital tools such as Google Docs and Google Slides to develop collaborative learning activities and projects that promote active learning and student-centered instruction. In addition, technology enables students to access and analyze medical data and images, enhancing their research and analytic abilities.

Question 3: **What difficulties have you encountered when integrating technology into your teaching?**

The answers of the teachers at the' Zenel Hajdini' high school:

Teacher 1: One of the most challenging aspects of integrating technology into my classroom has been keeping up with the latest applications and devices. As technology evolves rapidly, it can be difficult to keep up with the latest trends and discover the most effective classroom tools.

Teacher 2: Another obstacle is the lack of available technical support and training for teachers. It is essential to have access to training and technical support in order to utilize technology effectively and proficiently. Without this assistance, it can be difficult to solve problems that arise during

class.

Teacher 3: Finding a balance between traditional teaching methods and technology has been one of the most challenging aspects of integrating technology in my classroom. While technology can be a useful tool, it is essential not to rely on it exclusively and to ensure that students are still learning fundamental concepts and skills that can be taught using traditional methods.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: One of the challenges I have encountered when integrating technology into my classroom is the possibility of technical issues and errors that can disrupt the flow of the lesson. It is essential to have backup plans and contingencies so that class can continue even if technology malfunctions.

Teacher 2: Among the challenges I face as a teacher is the expense of integrating technology. Although technology can be beneficial in the classroom, purchasing and maintaining the necessary hardware and software can be costly. This can be particularly difficult in institutions with limited funds.

Teacher 3: As a teacher, you must engage in ongoing professional development and training to remain informed of technological developments. Without regular training and opportunities for professional development, it can be difficult to remain current with the most recent teaching tools and methods.

Question 4: **What kind of technology do you typically employ in your classroom, and why?**

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: I typically boost my teachings with PowerPoint presentations and videos. However, I have had difficulty gaining access to new technology because our school's budget does not permit frequent equipment upgrades.

Teacher 2: Due to limited resources, I use a blackboard and markers most frequently. It is difficult for me to integrate technology into my teaching practices, and my unfamiliarity with new

technologies has a negative impact on my teaching.

Teacher 3: I typically utilize the school's desktop computer and projector to display pertinent educational videos or presentations. Occasionally, however, the computer malfunctions, which frustrates both me and the students. It would be advantageous for the classroom to have more reliable technology.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: In my classroom, I employ a variety of technological devices to facilitate student learning, including interactive whiteboards, educational apps, and online resources. These tools help to engage students and make learning more interactive and engaging, in my opinion. I use interactive whiteboards to display images and diagrams that help students visualize complex concepts, and I use educational applications to offer students personalized feedback and support.

Teacher 2: Because I believe that technology can be an effective tool for enhancing student learning, I try to integrate it whenever possible into my lessons. Online exams, virtual simulations, and educational videos are typical examples of technologies that I implement. These tools can make learning more engaging and interactive, as well as aid to reinforce key concepts, in my opinion.

Teacher 3: As a teacher at the High School of Medicine, I have discovered that technology can be a tremendously useful assistance to student learning. In my classroom, I frequently use digital textbooks, online research databases, and video conferencing software, among other technological resources.

Question 5: What assistance or training have you received to integrate technology into your teaching practices effectively?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: Unfortunately, I have not received any training or assistance to integrate technology

into my teaching practices. I count primarily on my own experience and research to integrate technology into my classes.

Teacher 2: It has been a while since I received formal training in technology integration, so I do not feel current with the most recent tools and techniques. However, I do my best to learn on my own and share ideas and best practices with my colleagues.

Teacher 3: Recently, I completed an IT course and obtained certification, which has been incredibly useful for integrating technology into my teaching practices. I now have a greater comprehension of the various software and tools I can use to engage students and enhance their learning experience.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: I have participated in numerous training sessions and seminars on incorporating technology into my teaching practices. The school administration has organized these sessions to familiarize us with the latest classroom technology and its applications. This has helped me create more engaging and interactive classes for my students.

Teacher 2: I have participated in a number of online courses and webinars designed to help educators integrate technology into the classroom. These courses have helped me increase my knowledge and proficiency in the classroom application of technology. As a result, I can provide my students with a more stimulating and interactive learning environment.

Teacher 3: Our school provides teachers with ongoing support and instruction to enhance their use of technology in the classroom. We have a team of IT specialists who offer guidance and training to educators on the use of modern technology in the classroom. This has allowed me to stay aware of the latest technological advancements and incorporate them into my teaching methods, thereby enhancing the learning experience for my students.

Question 6: How do you evaluate the impact that technology has on student learning?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: I believe that technology has the capacity to significantly improve student learning. As I

am still learning how to integrate technology into my classes, I am not always able to evaluate its impact on my students. However, I have observed that when students are able to use technology to access additional resources or to collaborate with one another, they are frequently more engaged and enthusiastic about the subject matter.

Teacher 2: I have observed the impact that technology has had on student learning as a long-time teacher. Students today are more adapted to technology than ever before, and they expect it to be incorporated into their education. When utilized properly, technology can be a tremendously effective tool for engaging students and assisting in the development of essential skills.

Teacher 3: Although I have not received extensive training in the use of technology in the classroom, I have personally witnessed the positive impact it can have on student learning. When students can use technology to conduct in-depth research and investigation, they frequently gain a deeper understanding of the subject matter. In addition, I have discovered that technology can be an excellent tool for differentiating instruction and meeting the unique requirements of each student.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: Technology has had a profound impact on the education of our students. It has facilitated their access to information and improved their ability to collaborate and work on initiatives together. Our students can now communicate with their peers and teachers more effectively and receive feedback more quickly, allowing them to improve their work.

Teacher 2: I have observed that pupils who implement technology in the classroom are more engaged and motivated to learn. They have more opportunities to explore various topics and concepts, and they can apply what they have learned in the actual world. Overall, technology has had a positive effect on our students' education.

Teacher 3: As a teacher, I have witnessed the impact that technology has had on the education of our students. It has enabled them to develop digital skills that are essential in the modern world, and it has provided them with fresh possibilities for learning and self-expression. I believe that technology has the potential to transform education and provide our students with new growth

and development opportunities.

Question 7: How do you address the infrastructure challenges posed by technology integration?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: We aspire to make the most of the available technology. For instance, we use smartphones as a tool for student research, communication, and collaboration. We also seek alternative budget-friendly solutions, such as borrowing equipment from other institutions and utilizing open-source software.

Teacher 2: We have launched a campaign to increase community and student awareness of the significance of technology in education. We hope that by engaging the community, we will be able to receive donations or other forms of support that will allow us to enhance our infrastructure and introduce more advanced technology into our classrooms.

Teacher 3: We have established partnerships with institutions and organizations that have greater technological resources." We collaborate with them and share our understanding of how to integrate technology into instructional practices in an effective manner. Together, we can learn from one another and discover solutions to the infrastructure challenges.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: We are in continuous contact with our school administration in an effort to allocate more funds toward enhancing the technology integration infrastructure. We also aim to maximize our resources by utilizing technology in an innovative and resourceful manner.

Teacher 2: Our school has a committed IT team that works tirelessly to maintain and enhance the technological infrastructure. We also encourage students to bring their own devices and offer technical support to ensure seamless integration.

Teacher 3: We collaborate with other colleges and institutions to share best practices and to learn from their infrastructure-related challenges-related experiences. Additionally, we seek donations

and sponsorships from local businesses and organizations to support our efforts toward technology integration.

Question 8: How do you strike a balance between the use of technology and other instructional methods in the classroom?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: As a teacher, I believe that technology is a useful instrument that can enhance and support instruction, but that it should not completely replace other instructional methods. In addition to traditional methods such as lectures, discussions, and group work, we try to implement a variety of teaching strategies that include technology.

Teacher 2: It is essential to supplement traditional teaching methods with technology rather than relying solely on it. We attempt to strike a balance by utilizing technology for certain aspects of the lesson, such as research, multimedia presentations, and interactive simulations, while also incorporating other instructional strategies, such as class discussions, group projects, and hands-on activities.

Teacher 3: We believe that a balanced approach is optimal, where technology is integrated with other instructional methods in the classroom. We use technology to support and enhance our teaching, but we also value traditional teaching methods, such as lectures, discussions, and group projects, because they offer crucial opportunities for critical thinking, collaboration, and communication. We attempt to create a dynamic and engaging learning environment that combines the best of both worlds.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: For effective learning, we believe that a balance between the use of technology and other instructional methods is essential. We use technology to enhance our teaching methods and increase student engagement, but we also employ traditional methods such as lectures, discussions, and group projects to ensure that students receive a well-rounded education.

Teacher 2: Our strategy for integrating technology is to use it only when necessary and when it will clearly benefit student learning. We are cautious not to rely solely on technology and ensure that it is only one of many teaching tools we use. We value alternative instructional methods and routinely incorporate them into our lessons.

Teacher 3: We believe that a balance between technology and other instructional methods is necessary for establishing a dynamic and engaging learning environment. We use technology to facilitate research, provide multimedia resources, and create interactive activities, but we also employ conventional techniques such as whiteboard presentations, discussions, and group work. Our objective is to use the best of both realms to create an engaging and effective learning environment**.**

Question 9: **How do you ensure that the use of technology in the classroom enhances social interactions and mental health?**

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: Encouraging group work on technology-based projects, which facilitates collaboration and communication among students, is one way we ensure that the use of technology in the classroom improves social interactions and mental health.

Teacher 2: During the class period, we also integrate technology-free breaks, such as interactive discussions or team-building exercises, which can help reduce stress and foster positive social interactions.

Teacher 3: In addition, we provide students with resources to learn about digital citizenship and online safety, and we encourage them to take technology vacations outside of class to prioritize their mental health and well-being.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: We encourage students to use technology as a tool for communication and collaboration, not as a substitute for face-to-face interaction. For example, we may assign group projects that require the use of online collaboration tools, but we also provide opportunities for

students to meet in person and discuss their work.

Teacher 2: We also ensure that our students are aware of the potential dangers and disadvantages of technology use, such as cyberbullying and excessive screen time. We aim to promote healthy social and mental habits by increasing awareness and promoting responsible use.

Teacher 3: Finally, we try to incorporate mindfulness and stress-reduction techniques into our classes, which can help reduce some of the adverse effects of technology use. For instance, we could begin each class with a brief meditation or breathing exercise, or we could encourage students to move their bodies and take pauses from screens during extended study sessions.

Question 10: How do you imagine the future of technology integration and its function in the classroom?

The answers of the teachers at the 'Zenel Hajdini' high school:

Teacher 1: I believe that the integration of technology into the classroom will continue to expand and become more sophisticated. With the development of virtual and augmented reality, I perceive the possibility of immersive learning experiences that were previously unthinkable for students. However, I also believe that traditional teaching methods will remain significant and should not be entirely succeeded by technology.

Teacher 2: The future of integrating technology in the classroom is incredibly thrilling. I believe that as we continue to discover how technology can enhance student learning, more and more educators will adopt it. It is crucial to strike a balance between the use of technology and other instructional strategies, but I believe that technology can help engage students and make learning more enjoyable and interactive.

Teacher 3: I believe that the future of technology integration in the classroom is limitless. With the development of new technologies, such as artificial intelligence and machine learning, I can envision the potential for student-specific, individualized learning experiences. Nonetheless, it is essential to ensure that the use of technology does not compromise social interactions and mental health. Teachers must continue to maintain a balance between technology and other instructional methods.

The answers of the teachers at the high school of medicine 'Asllan Elezi'

Teacher 1: Integration of technology will continue to play an essential role in the classroom. As technology continues to advance, teachers will find it simpler and more efficient to incorporate it into their teaching strategies. As a result, students will have more personalized learning experiences, as technology can be adapted to meet their individual requirements.

Teacher 2: I believe that technology will keep spreading through classrooms and eventually become an integral component of the educational experience. This will allow students to investigate and engage with new topics in ways that were previously impossible and provide them with access to a wealth of resources and tools that can assist them in achieving their academic objectives.

Teacher 3: The future of classroom technology integration is very thrilling. I believe that technology will continue to evolve and become more user-friendly, making it simpler for instructors to incorporate it into their lessons.

4.3 Findings from students' survey

The current research intends to investigate the opportunities and challenges of technology integration in high schools in Gjilan. To accomplish this, we have conducted interviews with 60 students from two high schools in Gjilan: 30 from 'Zenel Hajdini' and 30 from 'Asllan Elezi'. The students are enrolled in the 10th, 11th, and 12th years and range in age from 16 to 19.

The semi-structured approach to conduct the interviews asked each student a number of open-ended questions about technology integration in the classroom. The duration of each interview will range between 15 and 20 minutes. Interview responses will be recorded and transcribed for analysis. After conducting and documenting the interviews, we will analyze the data using qualitative analysis technique. We will identify common themes and patterns in the

responses to the interview questions and use this information to draw conclusions about the advantages and disadvantages of technology integration in high schools in Gjilan.

By conducting these interviews, we hope to obtain a deeper understanding of the role of technology in high schools in Gjilan, as well as the opportunities and obstacles associated with its integration. The data collected from these interviews will be used to inform recommendations for improving technology integration in high schools in Gjilan, with the ultimate aim of enhancing student learning experiences and preparing students for future careers and higher education.

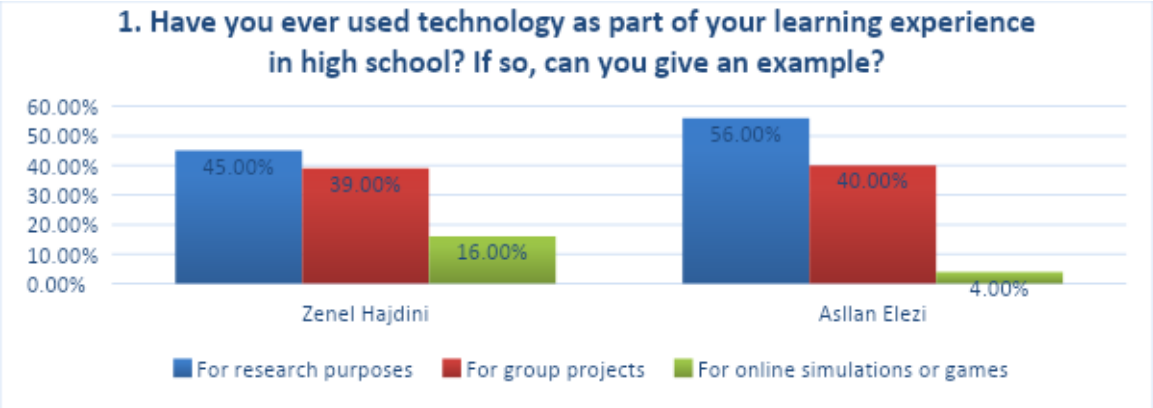

Figure 1. Results of question 1

It appears that secondary school students use technology widely for educational purposes. 45.00% of students from 'Zenel Hajdini' and 56.00% of students from 'Asllan Elezi' reported using technology for research, while 39.00% and 40.00% of students from 'Zenel Hajdini' and 'Asllan Elezi' reported using technology for group projects. In addition, a smaller proportion of students at both schools, 16.00% at 'Zenel Hajdini' and 4.00% at 'Asllan Elezi,' reported using technology for online simulations or games. Based on these findings, it can be concluded that technology plays an important role in the educational experiences of high school students, with research and group assignments being the most common usage.

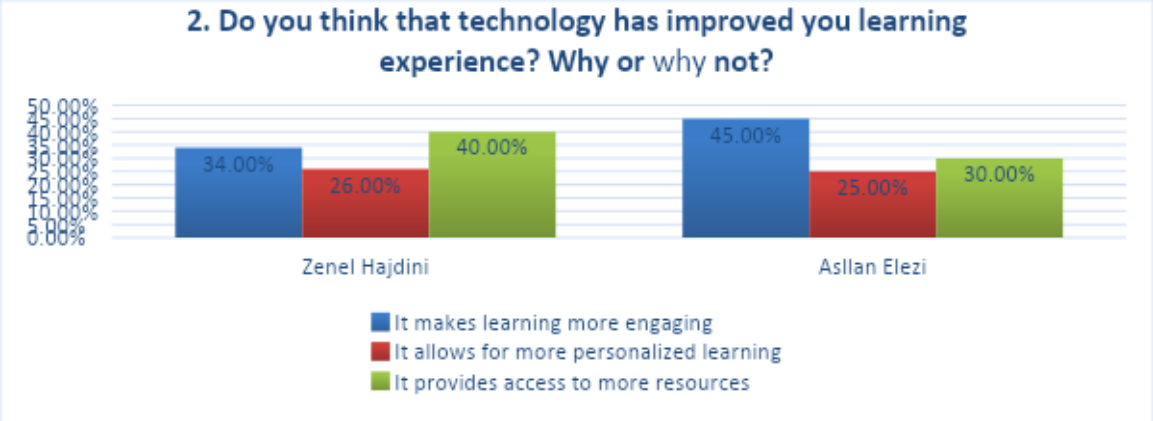

Figure 2. Results of question 2

Based on the responses of 60 students from High school 'Zenel Hajdini' and High school of medicine 'Asllan Elezi,' it appears that technology has improved their learning experiences. Specifically, a significant percentage of students from both schools, 34.00% from 'Zenel Hajdini' and 45.00% from 'Asllan Elezi', reported that technology makes learning more engaging. In addition, a significant number of students from both schools, 26.00% from 'Zenel Hajdini' and 25% from 'Asllan Elezi', indicated that technology enables more personalized learning. The majority of students from both schools, 40.0% from 'Zenel Hajdini' and 30% from 'Asllan Elezi', reported that technology provides access to more resources.

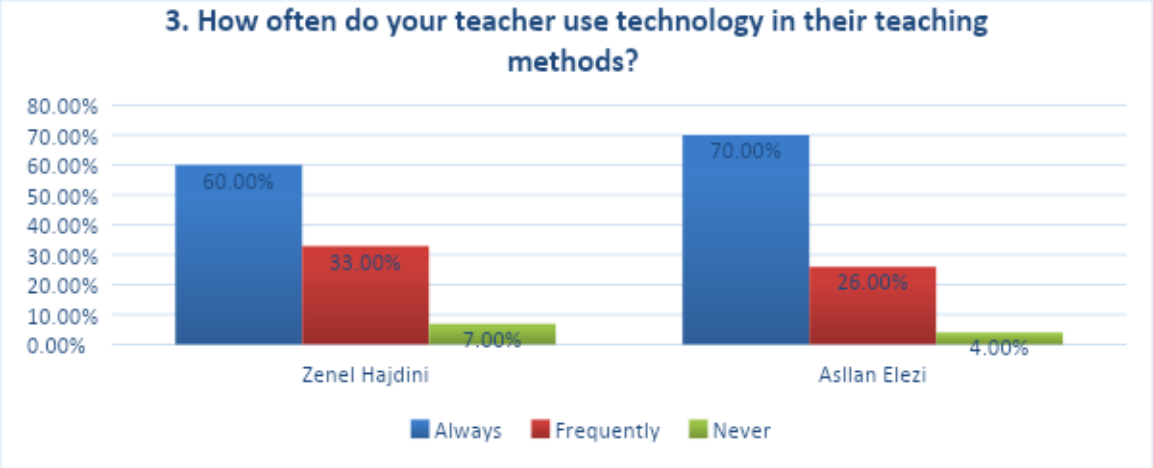

Figure 3. Results of question 3

Figure 3 shows that 60.00% and 70.00% of students at High School 'Zenel Hajdini' and High School of Medicine 'Asllan Elezi', each, reported that their teachers always integrate technology into their teaching methods. Additionally, a significant number of students (33.00% and 26.0%) reported that their teachers frequently use technology. Nonetheless, a small proportion of students reported that their teachers never use technology (7.00% and 4.00%). Both schools appear to use technology widely in their instructional methods.

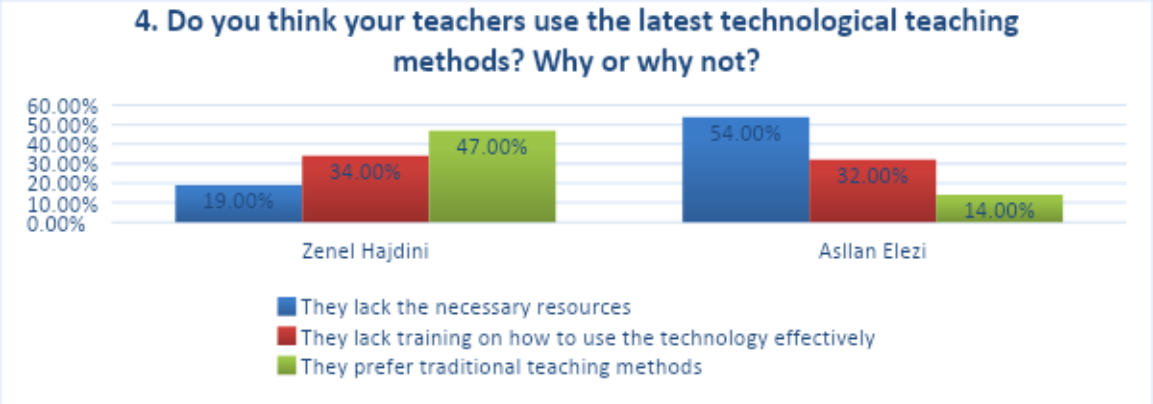

Figure 4. Results of question 4

According to student responses, a significant proportion of teachers at both High School 'Zenel Hajdini' and High School of Medicine 'Asllan Elezi' lack the necessary resources (19.00% and 54.00%) and training on how to effectively use technology (34.00% and 32.00%,). In addition, a substantial percentage of students from both schools reported that their teachers prefer traditional teaching methods (47.00% and 14.00%). These findings suggest that teachers in both schools' face obstacles in adopting the most advanced technological teaching methods.

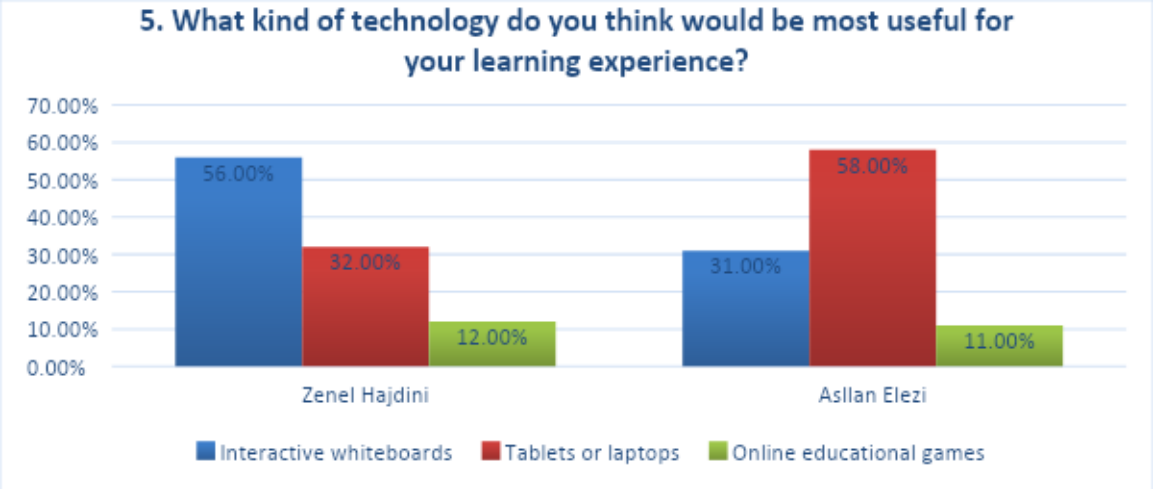

Figure 5. Results of question 5

According to Figure 5, 56.00% of students at 'Zenel Hajdini' High School prefer interactive whiteboards as the most valuable technology for learning, while 32.00% prefer tablets or laptops and 12.00% prefer online educational games. In contrast, 31.00% of students at the High school of medicine 'Asllan Elezi' prefer interactive whiteboards, 58.00% prefer tablets or laptops, and 11.00% favor online educational games.

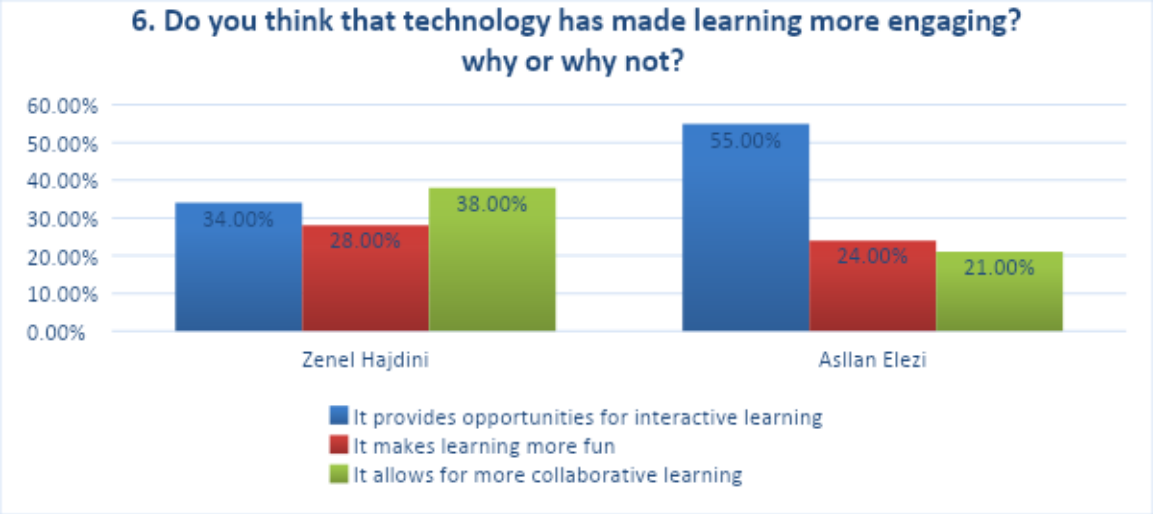

Figure 6. Results of question 6

According to the responses of the students at both schools, a significant number of students believe that technology has made learning more engaging. 34% of Zenel Hajdini's participants believe that technology facilitates interactive learning, 28% say it makes learning more enjoyable, and 38% say it enables more collaborative learning. 55% of Asllan Elezi participants said it allows for interactive learning, 24% said it makes learning more enjoyable, and 21% said it enables more collaborative learning.

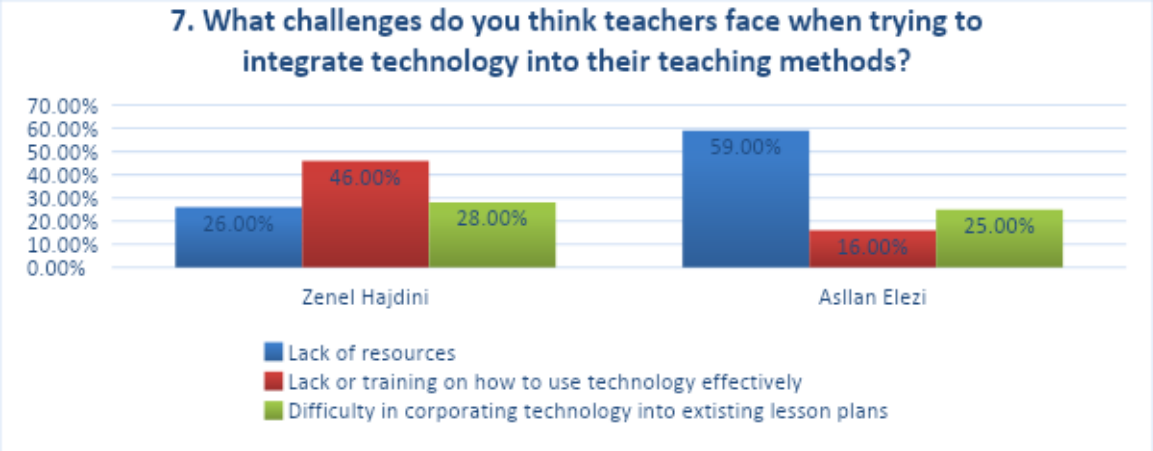

Figure 7. Results of question 7

According to the responses of the 60 students interviewed, 26% and 59% of High school 'Zenel Hajdini' and High school of medicine 'Asllan Elezi' students, believe that the lack of resources is the greatest obstacle teachers face when integrating technology into their teaching methods. In addition, 46% of students from 'Zenel Hajdini' High school and 16% of students from the High school of medicine Asllan Elezi', believe that teachers lack the appropriate training to use technology effectively. Lastly, 28% and 25% of students from the two schools believe it is difficult for teachers to incorporate technology into existing lesson plans.

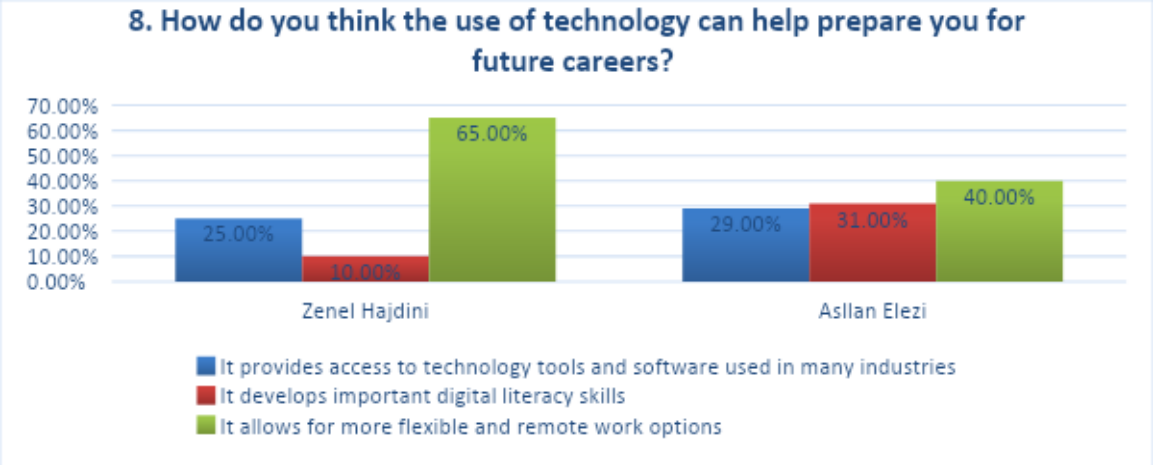

Figure 8. Results of question 8

According to the responses of sixty high school students, technology can help students prepare for future careers in a variety of ways. 25% of the 30 students from 'Zenel Hajdini' stated that technology provides access to industry tools, 10% stated that it develops digital skills, and 65% stated that it enables flexible work. 29% of the 30 students from 'Asllan Elezi' stated that technology provides access to industry tools, 31% stated that it develops digital skills, and 40% stated that it enables flexible work.

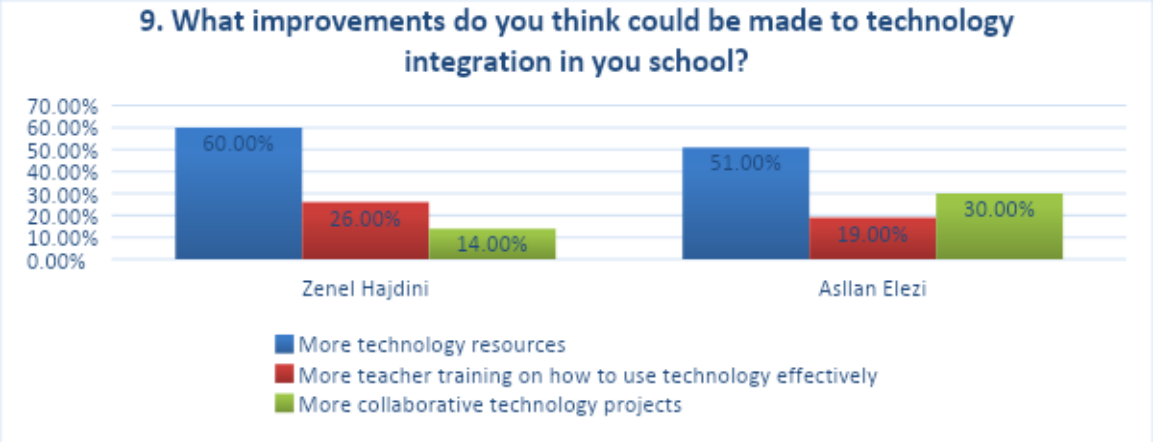

Figure 9. Results of question 9

Figure 9 shows that 60% of students from 'Zenel Hajdini' and 51% of students from 'Asllan Elezi' from both high schools mentioned the need for additional technological resources. 26% of 'Zenel Hajdini' students and 19% of 'Asllan Elezi' students recommended training for teachers on how to use technology effectively. In addition, 14% of 'Zenel Hajdini' students and 30% of 'Asllan Elezi' students requested an increase in collaborative technology campaigns.

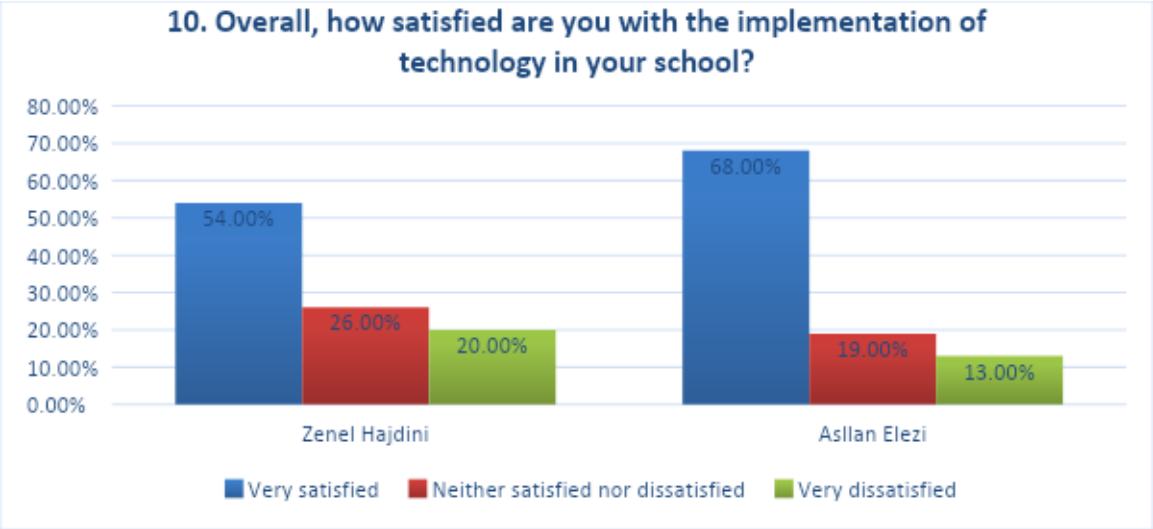

Figure 10. Results of question 10

The majority of high school students are pleased with the implementation of technology in their schools, according to the findings of interviews with 60 students. 54% of the 30 students from 'Zenel Hajdini' are extremely satisfied, 20% are extremely dissatisfied, and 26% are neither satisfied nor dissatisfied. 68% of the 30 students from 'Asllan Elezi' are very satisfied with the implementation of technology, while 19% are neither satisfied nor dissatisfied and 13% are very dissatisfied.

V. Discussion, Conclusion, and Recommendations

5. 1 Discussion

This chapter provides an in-depth summary of my research during this time, including findings from classroom observations and interviews as well as my personal suggestions for teachers.

5.2 Conclusion

In conclusion, the purpose of this master's thesis was to investigate the opportunities and challenges presented by the incorporation of technology in secondary schools located in Gjilan by using a case study methodology. According to the findings of the research, there are significant challenges that must be addressed, despite the fact that there are numerous benefits associated with integrating technology in secondary schools.

Access to various technological resources was identified as one of the most important factors for the achievement of successful technology integration in secondary schools. Both schools that were part of the case study brought up the issue of the need for additional technological resources, such as computer hardware and software, to support the efficient application of technology in the classroom. In addition, it was determined that providing teachers with instruction on how to make effective use of technology is another critical component in achieving successful technology integration.

One more significant finding was that integrating technology can improve both the level of student involvement and the outcomes of their education. Students have reported an increase in their motivation and interest in learning as a result of the incorporation of technology, as well as an increase in the number of opportunities for them to collaborate and communicate with their classmates. However, the research also brought to light concerns about the potential for

technology to distract students from their educational pursuits and the necessity of effective classroom monitoring and regulations regarding the use of technology.

The research also found that students can acquire valuable skills through the use of technology integration in the classroom, which is becoming an increasingly essential factor in the modern workforce. Students have reported that the integration of technology has assisted them in the development of essential digital literacy skills and has provided them with exposure to the kinds of technological tools and software that are utilized in a variety of industries. In addition to this, the ability to work from a distant location and with greater flexibility was cited as another significant advantage of integrating technology.

In general, the findings of this study indicate that although there are obstacles to the implementation of technology in high schools in Gjilan, there are also substantial opportunities to improve teaching and learning outcomes through the efficient application of technology. It will be essential to achieve these benefits if the challenges highlighted in this study are addressed; these challenges include the requirement for increased technological resources as well as effective teacher training. High school teachers can better equip their students with the skills necessary for the future by embracing the integration of technology in their classrooms. This helps students become better prepared for success in the digital era.

Regarding the research question one: ***What is the present condition of technology integration in the secondary schools of Gjilan?*** This study indicates that technology integration in secondary institutions in Gjilan is relatively low compared to other countries in the region. While some schools have made efforts to integrate technology into their classrooms, the vast majority have yet to completely embrace the benefits that technology can provide. Several factors, including a lack of funding and resources, inadequate teacher training, and general resistance to change, contribute to this.

Regarding research question two: *"**What are the attitudes and perceptions of teachers towards technology integration in secondary institutions in Gjilan?*** Teachers in Gjilan are aware of the

benefits that technology can offer in the classroom, but they frequently lack the training and support necessary to effectively integrate it. In addition, some teachers may have negative attitudes toward technology due to a lack of knowledge or a fear of change. With the appropriate training and support, however, many teachers can overcome these obstacles and develop a positive attitude toward technology integration.

Regarding research question three: ***"How can high schools in Gjilan overcome the obstacles of technology integration and maximize the opportunities that technology presents?*** There are a number of ways in which high schools in Gjilan can overcome barriers to technology integration and maximize the opportunities presented by technology. Schools must first invest in infrastructure and resources, such as high-speed internet, sophisticated devices, and educational software. Second, teachers need ongoing training and support to develop their skills and knowledge regarding the effective integration of technology. Teachers, students, and administrators must all recognize the benefits of incorporating technology into the classroom for schools to have an optimistic atmosphere surrounding technology. This can be accomplished through collaboration and communication between all parties involved.

5.3 Recommendations

Based on the study results, the following suggestions are able to be made for the purpose of improving the integration of technology in high schools located in Gjilan:

1. Increasing access to technology resources is one of the most essential factors in successful technology integration. The ability to access technology resources is one of the most essential factors in successful technology integration. To facilitate the efficient application of technology in the classroom, secondary schools in Gjilan ought to make investments in the modernization of their technology infrastructure. This should include hardware, software, and internet accessibility. Additionally, in order to acquire additional financing and resources for the incorporation of technology, schools may investigate the possibility of

forming partnerships with local businesses and organizations.

2. Teachers need to have sufficient training on how to effectively use technology in the classroom, so it is imperative that professional development opportunities be made available to them. The secondary schools in Gjilan should make continuous professional development opportunities available to the teaching staff so that they can improve their digital literacy skills and their understanding of productive practices for integrating technology. This could consist of things like training sessions, workshops, or even internet classes.
3. Establish Transparent Technology Policies High schools in Gjilan should establish transparent technology policies and principles in order to ensure that technology is utilized in an efficient and responsible manner in the classroom. These policies ought to address topics like acceptable use, online safety, and data privacy, and they should be reviewed and updated on a regular basis to represent changes in best practices and emerging technologies.
4. Foster an Environment that Encourages Innovation and Collaboration in Technology Integration secondary institutions in Gjilan ought to foster an environment that encourages innovation and collaboration in the implementation of technology. This can be accomplished by giving students and teachers the opportunity to work together on technology projects, exchange successful practices and resources, and experiment with new technologies.
5. Monitor and Assess Technology Integration As a final point, the secondary schools in Gjilan should routinely monitor and assess how well their efforts to integrate technology are working. This can involve collecting and analyzing data on student engagement, learning outcomes, and technology use, as well as using this information to make informed decisions about how to enhance the integration of technology in the classroom in the future.

In addition to these suggestions, additional research could be carried out to investigate the possible advantages and disadvantages of utilizing particular technologies in high school

classrooms. Some examples of such technologies include mobile devices and social media. In addition, the research could be carried out to investigate the influence that the incorporation of technology has had on particular student populations, such as students with disabilities or students learning English as a second language.

In general, the incorporation of technology provides high schools in Gjilan, with a variety of opportunities as well as challenges. Schools are in a position to take advantage of the benefits of technology integration and to provide students with the skills and knowledge they need to be successful in the digital era if they address the challenges and implement the recommendations that have been outlined above.

References:

Bebell, D., & Kay, R. (2010). *One to one computing: A summary of the quantitative results from the Berkshire Wireless Learning Initiative*. The Journal of Technology, Learning and Assessment. Retrieved 2023, from https://ejournals.bc.edu/index.php/jtla/article/view/1607

Bibliography: Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). *Understanding the role of digital technologies in education: A review*. Retrieved 2023, from https://reader.elsevier.com/reader/sd/pii/S2666412722000137?token=B6FB59D87B136C63C1DAE77025926E030B01BFC08A0723F6CA0785801A498FAFC19EB20F5242A04EDCB65E4719002145&originRegion=eu-west-1&originCreation=20230327124234

DeSantis (York College of Pennsylvania), J. (2016, March 31). *Investigating the relationship between Tpack and the ISTE standards for teachers*. Issues and Trends in Learning Technologies. Retrieved 2023, from https://journals.librarypublishing.arizona.edu/itlt/article/id/1493/

Gibbone, A., Rukavina, P., & Silverman, S. (2017). *Technology integration in Secondary Physical Education: Teachers' attitudes and Practice*. The Aquila Digital Community. Retrieved 2023, from https://aquila.usm.edu/jetde/vol3/iss1/3/?utm_source=aquila.usm.edu%2Fjetde%2Fvol3%2Fiss1%2F3&utm_medium=PDF&utm_campaign=PDFCoverPages

Howard, N. R., Schaffer, R., & Thomas, S. (2017). *Closing the Gap: Digital Equity Strategies for the K–12 Classroom*. WHAT DOES THIS MEAN FOR PROFESSIONAL LEARNING? Retrieved 2023, from https://upload01.uocslive.com/ISTE/ISTE2021/PROGRAM_SESSION_MODEL/HANDOUTS/114791025/ClosingtheGap2_Excerpt.pdf

Hughes, J., Thomas, R., & Scharber, C. (2006). *Assessing Technology Integration: The rat – replacement ... - techedges*. Retrieved 2023, from http://techedges.org/wp-content/uploads/2015/11/Hughes_ScharberSITE2006.pdf

Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2014, November 30). *The NMC Horizon Report: 2015 K-12 edition.* New Media Consortium. Retrieved 2023, from https://eric.ed.gov/?q=k12&pg=172&id=ED593612

Jonassen, D. H. (2003). *Handbook of Research on Educational Communications and Technology*. Lawrence Erlbaum.

Kharbach, M. (2022, December 20). *TPACK model explained for teachers*. Educational Technology and Mobile Learning. Retrieved 2023, from https://www.educatorstechnology.com/2019/03/tpack-explained-for-teachers.html

Kozma, R. B. (2008). *Comparative policies for ICT in Education - UNESCO*. Retrieved March 2023, from https://en.unesco.org/icted/sites/default/files/2019-04/9_comparative-analysis-of-policies-for-ict-in-education.pdf

Picciano, A. G. (2012, July 24). *The evolution of Big Data and learning analytics in American ... - ed*. THE EVOLUTION OF BIG DATA AND LEARNING ANALYTICS IN AMERICAN HIGHER EDUCATION. Retrieved March 22, 2023, from https://files.eric.ed.gov/fulltext/EJ982669.pdf

Price, E., & Price, B. (2019). *Inside the 21st-century classroom - common sense media*. THE COMMON SENSE CENSUS: INSIDE THE 21ST-CENTURY CLASSROOM. Retrieved March 2023, from https://www.commonsensemedia.org/sites/default/files/research/report/2019-educator-census-inside-the-21st-century-classroom-key-findings.pdf

Puentedura, D. R. P. (2021, March). *Teal 2021: Keynote address by dr. Ruben Puentedura*. Vimeo. Retrieved March 2023, from https://vimeo.com/516491246

Purcell, K., Buchanan, J., & Friedrich, L. (2020, May 30). *How teachers are using technology at home and in their classrooms*. Pew Research Center: Internet, Science & Tech. Retrieved March 2023, from https://www.pewresearch.org/internet/2013/02/28/how-teachers-are-using-technology-at-home-and-in-their-classrooms/

Selwyn, N. (2011). *Schools and schooling in the digital age: A critical analysis*. Routledge.

The Ministry of Education, Science and Technology. (2019). Retrieved 2023, from http://masht.rks-gov.net/uploads/2019/05/Education_in_Kosovo

Warschauer, M., & Matuchniak, T. (2010). *New Technology and Digital Worlds: Analyzing Evidence of equity in ...* Retrieved March 2023, from https://journals.sagepub.com/doi/10.3102/0091732X09349791

YUEN, A. H. K. (2008, August 4). *Exploring teacher acceptance of e-learning technology - researchgate*. Retrieved March 2023, from https://www.researchgate.net/publication/248984613_Exploring_teacher_acceptance_of_e-learning_technology

Appendices

I would like to take this opportunity to thank the students as well as teachers who participated in this research. Their willingness to share their experiences, perspectives, and opinions regarding technology integration in high schools was essential to the success of this research.

60 students and 6 teachers from High school 'Zenel Hajdini' and High school of medicine 'Asllan Elezi' in Gjilan kindly agreed to be interviewed and provided insightful feedback. Their participation was crucial in enhancing my comprehension of the opportunities and challenges of technology integration in secondary schools in Gjilan.

Thank you once more to everyone who contributed to this study. Your contribution was incredibly valued.

Appendix 1:

Teacher Interview

1. How do you implement technology into your educational practices?
2. What opportunities do you believe technology offers for student engagement and learning?
3. What difficulties have you encountered when integrating technology into your teaching?
4. What kind of technology do you typically employ in your classroom, and why?
5. What assistance or training have you received to integrate technology into your teaching practices effectively?
6. How do you evaluate the impact that technology has on student learning?
7. How do you address the infrastructure challenges posed by technology integration?
8. How do you strike a balance between the use of technology and other instructional methods?
9. How do you ensure that the use of technology in the classroom enhances social interactions and mental health?
10. How do you imagine the future of technology integration and its function in the classroom?

Appendix 2:

Student survey

1. Have you ever used technology as part of your learning experience in high school? If so, can you give an example?

A) For research purposes.
B) For group projects
C) For online simulations or games
D) Other (please specify):

2. Do you think that technology has improved your learning experience? Why or why not?

A) It makes learning more engaging.
B) It allows for more personalized learning.
C) It provides access to more resources.
D) Other (please specify):

3. How often does your teacher use technology in their teaching methods?

A) Always
B) Frequently
C) Never

4. Do you think your teachers use the latest technological teaching methods? Why or why not?

A) They lack the necessary resources.
B) They lack training on how to use the technology effectively.
C) They prefer traditional teaching methods.

D) Other (please specify):

5. What kind of technology do you think would be most useful for your learning experience?

A) Interactive whiteboards
B) Tablets or laptops
C) Online educational games
D) Other (please specify):

6. Do you think that technology has made learning more engaging? why or why not?

A) It provides opportunities for interactive learning.
B) It makes learning more fun.
C) It allows for more collaborative learning.
D) Other (please specify):

7. What challenges do you think teachers face when trying to integrate technology into their teaching methods?

A) Lack of resources
B) Lack or training on how to use technology effectively
C) Difficulty in incorporating technology into existing lesson plans
D) Other (please specify):

8. How do you think the use of technology can help prepare you for future careers?

A) It provides access to technology tools and software used in many industries.
B) It develops important digital literacy skills.
C) It allows for more flexible and remote work options.
D) Other (please specify):

9. What improvements do you think could be made to technology integration in your school?

A) More technology resources
B) More teacher training on how to use technology effectively
C) More collaborative technology projects
D) Other (please specify):

10. Overall, how satisfied are you with the implementation of technology in your school?

A) Very satisfied
B) Neither satisfied nor dissatisfied
C) Very dissatisfied
D) Other (please specify):