# CHALLENGES AND ADVANTAGES OF TECHNOLOGY INTEGRATION IN THE LEARNING PROCESS

**Medina XHURAJ[1], Blerta MEHMETAJ[2], Rajmonda BERISHA[3]**

*"Hasan Prishtina" University - Faculty of Education*
*"Hasan Prishtina" University - Faculty of Education*
*"Hasan Prishtina" University - Faculty of Philology*
*Corresponding author: Emedinaxhuraj@hotmail.com*

**Abstract**

ICT in education is understood as an implementation of technological devices and tools in the learning process for recording and processing information in digital form. Technology, as one of the greatest developments of this century, is necessarily being integrated into education, so the goal of teachers, today, is to apply it in the classroom so that the teaching is more qualitative. The use of ICT in education prepares young people for a successful future. The skills and abilities of communication, critical thinking, and problem-solving, as well as working in groups are the main segments in the technological society of the 21st century. Thus, a large part of teachers to adapt to changes and to prepare students with the necessary skills of necessary have started using new methods and platforms in teaching. Therefore, the main purpose of this research is to present the challenges and advantages of technology integration during the learning process. A structured questionnaire for teachers was designed and administered as the main research instrument. The research is quantitative and the data was analyzed through the SPSS program. The participants are 50 teachers of primary and lower secondary schools in Kosovo.

*Keywords: integration, teaching, teacher, online learning, platform, technology.*

## Introduction

Children today live in a rapidly changing world that is expanding their horizons of knowledge. Technology has not only created new forms of entertainment but also introduced a whole new dimension into their daily lives, commonly referred to as the "Internet world". As a result, in recent years a large part of teachers have used new contemporary methods in the field of teaching. One of them is precisely technological or digital teaching. Teaching and learning through the Internet and technology are very current and very necessary phenomena in the society of the XXI century, therefore methods that enable this type of learning in the best possible ways are always in demand and profitable in every aspect. Education has changed in many aspects and technology is among the key factors of this change. The educational landscape has always been influenced by technological developments, but never as much as it is today, so it is now very important to integrate technology throughout the learning process, and it will undoubtedly have an impact on raising the quality of teaching and learning. The purpose of this research is to present what challenges and what advantages the integration of online learning in teaching and learning may have brought according to the teachers of elementary schools in Kosovo. Both the advantages and the challenges are different, starting from the fact that learning through technology is something new for our society and schools.

**The importance of Tik in the learning process.**

Technology has transformed the way of teaching and learning, but by transforming the process, it is also transforming the result (Fouts, 2000). Before the twentieth century, the three main tools of instruction were the teacher, the text, and the blackboard. Books, papers, and pencils were the basic tools to access communication and information exchange. The 20th century brought the dominance of technology in education, so nowadays in the classrooms the presentation of each work is done by the students with PowerPoint, the explanation by the teacher in separate classes with a video projector, the work and sending of the tasks by the students by e-mail, etc., thus making teaching and learning significantly different. So, the integration of technology has made teaching very fruitful in schools. The use of technology in the classroom also has a positive effect on students' attitudes as they feel more successful, more motivated to learn, and display more self-confidence. (Google, 2020). Technology can and does help students develop all kinds of skills from the simplest to the most complex. However, for technology to be successful, the teacher must make informed choices about the pedagogical approach, student needs, and learning outcomes. For the teacher, as important as it is to know what he will use technology for, it is equally important to know how learning can be improved through technology (Roblyer, 2009).

In addition, the technology makes for a very fun and non-tiring watch. It is understood that today's students are quite connected to technology and so, having the technology lesson, everything would be simple and fun including various quizzes, learning questions, also games, which in itself have the opening of the horizon of knowledge for students (Kapllani, 2016).

**Use of technological devices in the classroom**

Computer devices are particularly useful for primary school students when writing assignments thus stimulating writing skills (language competence), but this happens when the device used is built from a full keyboard. The use of computer equipment supports learning methods for students with different learning abilities, so their use helps students with different conceptual abilities as well as students with special needs in the faster absorption of new concepts during any topic in the lesson. Integrating technology into the classroom means many things to different teachers. When teachers are asked if they integrate technology into their subjects they give many answers such as:

- I use the computer in class to reinforce the issues I have explained.
- Students use the computer to find information.
- My students use Word to do their homework.
- Use poetry to make presentations in class.

But are these examples of technology integration? One might think that each of these examples integrates technology into the classroom. But the real issue is not whether technology is being used in the classroom, but whether it is being used to enhance the learning process (Roblyer, 2009).To ensure that technology tools are used effectively, the teacher must use them through the application  of appropriate teaching theories. The philosophy of the new basic education curriculum is based on the constructivist approach. This approach defines: "learning occurs when the person constructs together the mechanism for learning and his unique version of knowledge, supplemented by his personal experiences and skills" (Roblyer, 2009). An example of the use of technology is simulations through computer games where students play the role of decision-makers in historical situations to see the importance of these events in their daily lives and to better develop critical thinking and problem-solving skills. Another form of technology use is virtual time travel. Students learn about different cultures by viewing photographs, films, video clips, PowerPoint presentations, and selected texts. Students, while navigating through the virtual journey, answer the teacher's questions (Roblyer, 2009).

**Advantages of technology**:

Methodists believe that there are many advantages of using technology in the classroom, such as it makes the student more interested in the learning topic, reduces learning time, and provides opportunities for learning in a non-traditional way.

Some advantages of technology in the learning process (Explorance, 2020) can be considered:

**It helps connect students with the real world**

Technology allows educators to remove the physical barriers of the classroom, providing students with a way to connect curriculum to the real world, and those areas of academic focus can truly enrich the student experience.

**Prepares students for the workforce**:

To thrive in the 21st-century workplace, students must have more than a working knowledge of certain technology tools. By integrating technology into regular curriculum and ongoing activities, institutions are ensuring that their students are better prepared for the modern office.

**Encourages cooperation:**

Many educational tools offer a variety of features that encourage collaboration. For example, video conferencing tools like Zoom and Skype provide an easy way for students to hold virtual meetings with classmates from anywhere in the world. With free online storage solutions like Google Drive, students can easily share and edit projects with each other, helping to foster better overall collaboration in both the academic and work worlds.

**Supports different types of learning:**

No student learns the same way, but with the right knowledge tools, educators can address diversity in learning styles and experiences.

**Easier access to information:**

Technology makes it easier for students to find information quickly and accurately. Search engines and e-books are partially replacing traditional textbooks. Learners can get help through educational videos – anytime, anywhere – and massive open online courses. Using these continuous learning tools enriches students' potential for future learning.

**Teaches students how to be responsible online**:

With the many social media sites, most students are already digital citizens. However, by incorporating technology into the classroom, students can begin to learn how to be responsible in the digital world and with their actions. The classroom becomes a microcosm of the wider landscape where students can practice how to communicate, seek, and engage with other citizens.

**Adds a fun factor to learning:**

Outside the classroom, students use technology in all aspects of their lives. Inside the classroom, technology can make learning more fun and exciting. Teaching methods such as game-based learning (GBL) allow instructors to teach through interactive games and boards. Who doesn't like to play games? A dashboard tool like Blue can be used to gather feedback and critically evaluate the impact of these gamification efforts, ensuring you can move beyond anecdote and truly assess how effective these new tools are. Maintaining these efforts is an excellent example of organizational agility in action

**The challenges of integrating technology into learning**

While technology is being used more and more frequently in education, many teachers are still struggling with integrating it into their classrooms and wondering if this is the right move for them.
Common challenges and concerns teachers experience when integrating technology and digital media into the classroom include:
1. Misuse of technology by students;
2. Teacher knowledge and professional development;
3. Keeping students safe online;
4. The cost of new technology;
5. Keeping up with new changes (GoGuardian, 2019).

Whereas, Harrell & Bynum have presented the external and internal factors that limit the integration of technology:

External factors:

1. Weak infrastructure;
2. Inadequate technology;
3. Lack of sufficient and effective professional development

Internal factors:

1. Low self-efficacy;
2. Teacher Perceptions

**5. Online Learning**

Online learning is a form of education, which is realized through modern communication technologies, to teach students located in different places and distances - outside the traditional learning environment (classroom) (Guce, n.d.).
Online learning is the use of advanced technology by people to learn anytime and anywhere. Online learning enables you to learn in class, in groups, and anywhere there are technological devices. It is a new approach that incorporates learning on the one hand and information technology on the other. It is the extension of learning and the Internet in one place (Diploma, 2020).
Previous research has shown that online learning has great potential to create positive availability and achieve educational efficiency. However, by itself, online education is no more effective than a classroom-based approach, and its effectiveness depends on how the teaching methods are integrated into effective learning

principles. Differences in content quality, interactivity, and platform availability may affect learning satisfaction, but it is not clear which aspects are most important for online education in primary schools. Previous studies on the problems associated with online learning have focused primarily on college students. However, few studies have focused on elementary school students' experiences and satisfaction with online learning. Another limitation that has been mentioned in previous studies is that researchers only assess the enjoyment of online learning from the student's perspective. However, parents' opinions also affect students' satisfaction with learning and can inspire students to learn. This is concerning, as several factors (concentration, self-discipline, and related factors) can result in a host of problems during online learning (Shu, Zhang, Wang, Zhang, Wang., 2021).

The concept of traditional education has changed radically within the last two years. Being physically present in a classroom is no longer the only learning option—not with the rise of the Internet and new technologies, at least. Nowadays, you have access to a quality education whenever and wherever you want, as long as you have access to a computer. We are now entering a new era - the online education revolution (Josep, 2020).

The changes driven by today's technology are felt no more than in the field of education, where technological innovation signals fundamental transformations in the way educational programs will be delivered to 21st-century learners. Online learning is providing institutions of higher education with an entirely new modality for educating students free from the constraints of time and location, but the transition these institutions must undergo to adapt to online program delivery involves many complex issues, some with consequences that are not yet fully understood.

**Advantages in Online Learning according to (Diploma, 2020)**

• Using technology to learn, create and carry data, anywhere and anytime.
• The possibility of non-payment of the learning environment, school space, and infrastructure as well.
• Dynamic learning program, which creates a connection between students and professors electronically.
• An additional component that gives students and the school a competitive spirit with world challenges through the most up-to-date information that comes out of this platform.
• Improves the digital skills of participants.
• Increases the independent work of students.
• Enables the enrichment of the process with new forms (video).

**Disadvantages of Online Education according to** (Diploma, 2020)**:**

• Evaluating the work of each student is more complicated since the student is not close (in front) to the teacher and the possibility of help from someone or copying is easier.
• Discipline in learning is more difficult to maintain since it is easier for the student to be stimulated to learn when he is close to or in front of the teacher.
• Communication remains more formal between the student and the teacher because otherwise, it can create misunderstandings.
• Non-communication of the student with the teacher alone, which is very necessary.
• Many uncertainties and questions from students are not explained by the teacher.
• Explanation regarding students' ambiguities and questions is more difficult since students and teachers when they are close face to face, it is easier to interact with each other.
• Current textbooks and curricula are not suitable for this type of teaching.
• Teachers are not trained to teach online.
• Direct contact and receiving feedback from teachers on student behavior is lost.
• Social interaction between students decreases.

**Research methodology**

**Population and sample**

The population includes all teachers of public primary and secondary schools in Pristina. The representative group, includes 50 teachers from public primary and secondary schools in Kosovo randomly selected, by sending the questionnaire with Google form. The instruments that will be used during this research are questionnaires with about 10 questions for teachers.

**Research questions:**

What are the advantages of integrating technology into the learning process?

What are the challenges of integrating technology into the learning process?

**The purpose of the research:**

The purpose of the research is to identify the advantages and challenges of integrating technology into the learning process according to primary and secondary school teachers in Kosovo.

**Data analysis**

Since the structure of the study is quantitative, statistical methods will be used for the analysis, of teachers' questionnaires.

**Analysis of the results**

To highlight the advantages and challenges that the integration of technology has brought to teaching, we received answers from 50 teachers, through the questionnaire, which also contains two open questions, in which they expressed their attitudes regarding the advantages and challenges.
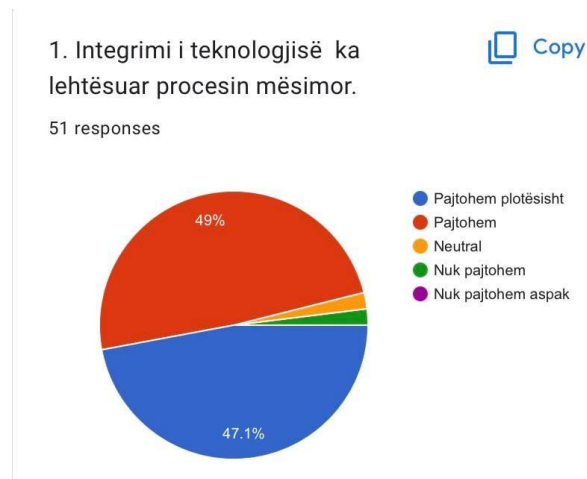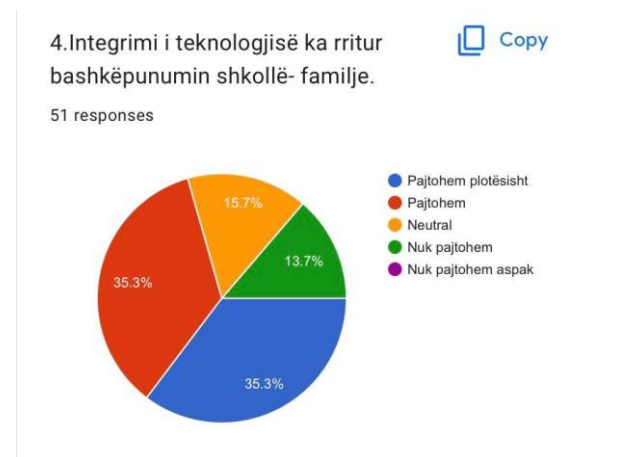


Regarding the integration of technology in teaching, over 95% of the surveyed teachers agree that technology has brought relief. So, we have almost complete agreement that teaching has indeed been facilitated by the integration of technology. As for the connection between technology integration and student evaluation, we have over 70% agreement that this integration has also facilitated the process of student evaluation, while 11% are neutral and over 13% of teachers disagree that technology integration has facilitated the process of student

evaluation. Also, over 75% of teachers have stated that the integration of technology has increased the transparency of the assessment, both for students and for parents, and this percentage can be related to the use of online platforms, such as E-school, in which teachers decide assessment instruments for each subject. Whereas, 11% of teachers were neutral and 8% disagreed that the integration of technology has brought transparency in evaluation.
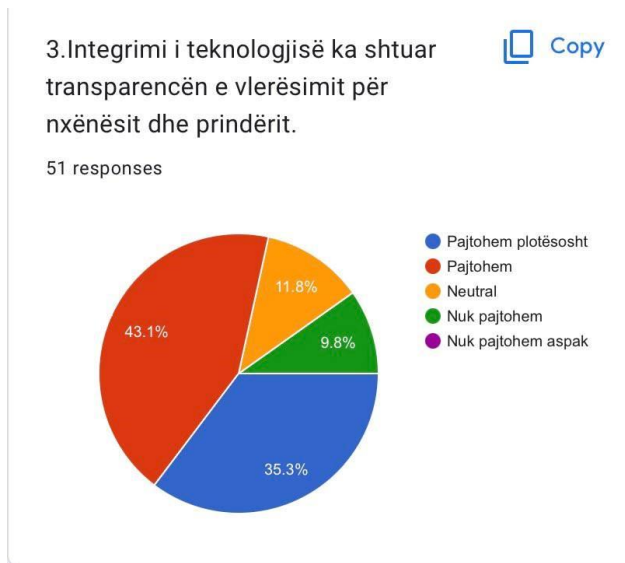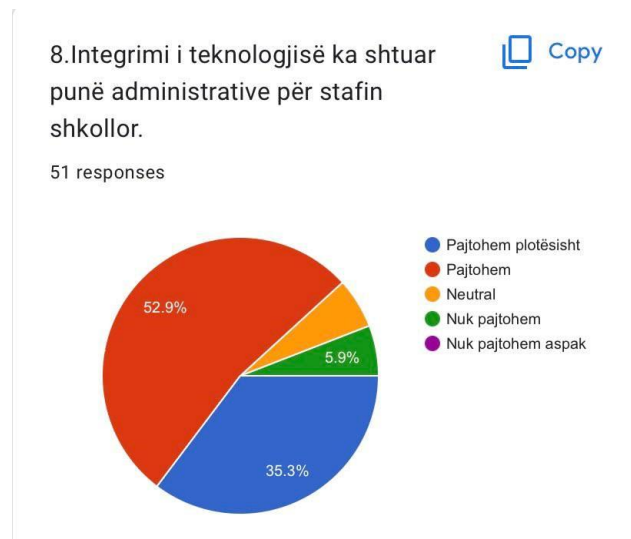


We have a percentage of 70% for the question "Technology integration has increased school-family cooperation", 15% expressed neutrality and about 15% disagreed that this aspect has increased school-family cooperation. However, the compatibility of 70% can be related not only to the use of online platforms but also to the fact that parents are often very contributory in providing different tools for the classroom that influence teaching to become more attractive, therefore the same can be it also counts in terms of technology integration.

Over 85% of teachers have declared that the integration of technology has improved their teaching and this is fully justified by the fact that the use of technology enables the use of additional resources in teaching, the use of videos and different sites, which bring a new spirit in the classroom making learning easier and more attractive and encouraging students to participate actively. However, about 65% of teachers have expressed that the integration of technology has not been implemented due to the lack of technological equipment and this continues to be a challenge for our schools. While about 16% of teachers expressed neutral and about 18% of teachers disagreed with this statement. And this means that in some schools this problem has been solved or that some teachers may have made other solutions to integrate technology, either through personal initiatives or in cooperation with the parents of their classes.

Also, over 65% of the teachers have expressed that they have not been offered training to facilitate the integration of technology in teaching, and this is certainly more necessary for older teachers.

8.Integrimi i teknologjisë ka shtuar punë administrative për stafin shkollor.

51 responses

Copy

- Pajtohem plotësisht
- Pajtohem
- Neutral
- Nuk pajtohem
- Nuk pajtohem aspak

52.9%

35.3%

5.9%

Even though the integration of technology brings many benefits to the learning process, over 85% of teachers stated that it has also increased administrative work. This is certainly related to the fact that in using online platforms, teachers have to perform many similar tasks in both physical and electronic diaries, also with the fact that even for inclusion in the learning process, teachers have to filter information that the internet offers to serve students and also time is needed to make their selection and preparation.

From the open question "In your opinion, what are the advantages of the integration of technology in the learning process?", we received many answers, which were sometimes approximate, therefore we have summarized them as follows, responding as follows to our first research question:

• The integration of technology makes teaching more attractive.

• Provides additional resources and literature.

• Technology saves time and creates opportunities for communication and doing work at any time.

• Easier access to information.

• Makes teaching more efficient and learning more practical.

• Makes learning content easier, because they can see different videos and demonstrations which they then implement in practice.

• Faster distribution of information.

• Students become more creative, innovative, and attentive.

• Enables exploratory calls.

• Creates opportunities for contemporary and better quality teaching thus facilitating the learning process.

While, regarding the question "In your opinion, what are the challenges of integrating technology in the learning process", we also received numerous answers, which were sometimes approximate, therefore we have summarized them as follows, thus answering our second research question:

• Lack of technological equipment in schools.

• Lack of internet in schools.

• Lack of training for teachers.

• Ignorance of relevant programs.

• The time it takes for the technology to be properly integrated.

• The difficulties that students have at home for the realization of the projects addressed to them.

• High financial cost and lack of time to follow up on innovations in technology.

- Administrative burden, for the same work to be done both physically and electronically.

**Conclusion**

The conclusions and recommendations drawn from this paper are based on the reviewed literature as well as the findings from the analysis of the results related to the advantages and challenges of the integration of educational technology in the teaching and learning process. According to the results mentioned above, we can conclude that the Internet is a facilitating tool for teaching. Teachers have claimed that the Internet helps us and offers us various ways of learning. It enables students to independently research all subjects. From the findings of this paper, it is understood that technology occupies an important place in the education system. However, despite the efforts and commitment of teachers to use technology as much as possible in teaching, the current situation proves that it is still far from being functional for all teachers in the schools of Pristina since about 65% of teachers have expressed that the integration of technology is not has found application due to the lack of technological equipment in schools. We know that equipping schools with computers and how they are used is a factor that affects teacher-student interaction and cooperation.

In addition, teachers say that the Internet facilitates cooperation between parents and teachers. Also, during the research, we noticed that teachers in schools were not offered training on teaching strategies through ICT, therefore, it can be seen that teachers need continuous professional development, to improve their knowledge, acquire skills new in this field, as well as use the potential of technology to improve the teaching-learning process.

## Recommendation

Based on the results of the research, we have tried to give specific recommendations regarding the challenges and advantages of increasing the quality of integrated teaching through ICT.

• Teachers to implement different teaching strategies, applying different visual methods through ICT.
• Teachers should be offered training to facilitate the integration of technology in teaching.
• Equipping schools with computers and their operation, which continues to be a challenge for our schools.
• Teachers to evaluate the achievements of online students.
• Mentoring and monitoring to see the use and integration of technology in schools.
• allow students to implement ICT in schools for pedagogical needs, as well as the opportunity to support their work to research different resources (not for games and entertainment) because students must be equipped with skills and knowledge ideal to benefit the country.
• Students use technology for socialization and other learning needs.
• Parents should talk with their children about the consequences that may result from the improper use of ICT so that the children are informed.

## References

[1]    Alves-Martins, M., Peixoto, F., Gouveia, M., & Pereira, V. A. (2010). Self-esteem and AcademicAchievement Among Adolescents. *Routledge*, 4.

[2]    Ariana Garrote1, 2. F. (2020). Social Acceptance in Inclusive Classrooms: The Role of TeacherAttitudes Toward Inclusion and Classroom Management. *Frontiers in Education*, 1.

[3]    Banks, J. a. (1989). *Multicultural Education,Issues and Perspectives.* Boston: Allyn and Bacon.

[4]    Bowker, J. C., Adams, R. E., Fredstrom, B. K., & Gilman, R. (2014). Experiences of Being Ignored by Peers During Late Adolescence: Linkages to Psychological Maladjustment. *Wayne State University Press*.

[5]    Brown, B. B., & Stainberg, L. (1990). Academic Achievment and Social Acceptance . *The Education Digest*.

[6]    Brown, N. (2013, 07 27). *Easy Peasy Kids*. Retrieved 04 18, 2021, from How I teach children Acceptance: https://easypeasykids.com.au/acceptance/

[7]    Chang, L. (2004). The Role of Classroom Norms in Contextualizing the Relations of Children's Social Behaviors to Peer Acceptance. *The Chinese University of Hong Kong*, 693.

[8]    Diploma, S. (2020, September 21). Mesimi Online. *wordpress*. Retrieved from https://mesimionlinecovid19.: https://mesimionlinecovid19.wordpress.com/2020/09/21/cfare-eshte-mesimi-online/

[9]    Doli-Blyta, L. (2018). Pranueshmëria sociale e fëmijëve me nevoja të veçanta në klasat inkluzive. p. 104.

[10]   Eguavoen, E. O. (2016). Influence of Self-Concept and Social Acceptance on Academic Achievement of Students with Visual Impairment in Oyo State,Nigeria. *International Journal of Arts and Humanities(IJAH)*, 216.

[11]   Explorance. (2020, Maj 20). 7 Reasons Why Students Need Technology in the Classroom . *Explorance*.

[12]   French, D. C. (2003). Friendships of Indonesian children: adjustment of children who differ in friendship presence and similarity between mutual friends . *Social Development*.

[13]   GoGuardian. (2019, Nentor). *Benefits and Challenges of Technology in the Classroom*. Retrieved from https://www.goguardian.com/blog/technology-in-the-classroom-importance-challenges

[14]   *Google*. (2020). Retrieved from Teknologjia ne Mwsimdhenie: https://sites.google.com/site/teknologjianemesimdhenie0/

[15]   Guce, L. (n.d.). *Edukimi ne disitance*. Retrieved from https://sites.google.com/site/luljetaguce92/

[16]   Hubber, C. (2011). [Teacher's feedback and social integration: Is there a link between social referencing theory and social integration in school. *Empirische Sonderpädagogik*, 20.

[17]   Josep, G. (2020, june 4). *articles&advices*. Retrieved April 2021, from educations.com: educations.com/articles-and-advice/5-reasons-online-learning-is-future-of-education-17146

[18]   K.Deadorff, D. (2006). Intercultural competence model. *Journal od Studies in International Education*, 241-266.

[19]   Kapllani, K. (2016). Përdorimi i teknologjisë në mësimdhënie. *Uk School*.

[20] Marsh, H. W., & Mara, A. O. (2007). Reciprocal Effects Between Academic Self-concept, Self-esteem, Achievment and Attainment Over Seven Adolescent Years: Unidimensional and Multidimensional Perspectives of Self-cocept. *Research Gate* .

[21] Oppenheimer, L. (1990). The Self-Concept European Perspectives on its Development, Aspects and Applications. *SAGE journals*.

[22] Orth, U., & Robins, R. W. (2014). The Development of Self-Esteem. *SAGE*, 384.

[23] Pijl, S. J., & Frostad, P. (2014). Peer acceptance and self-concept of students with disabilities in regular education. *Routledge*.

[24] Richardson, A. R. (2011, 12 16). Retrieved 04 18, 2021, from Promoting Equity and Social Acceptance in the Classroom: https://ashleyraerichardson.wordpress.com/2011/10/16/promoting-equity-and-social-acceptance-in-the-classroom/

[25] Roblyer, M. D. (2009). *Integrating Educational Technology into teaching.* Pearson/ Merrill Prentice Hall, 2006.

[26] Schaffer, H. R. (1996). Social development. *Oxford, UK: Blackwell*.

[27] Schwab, S., Huber, C., & Gebhardt, M. (2015). Social acceptance of students with Down syndrome and students without disability. *Routledge*, 16.

[28] Shehu, B. P. (2019). Social Competence and Attitude Towards School in Relation to Academic Achievements of Students in Kosovo . *TigerPrints*, 132.

[29] Shonta Harrell, Yvette Bynum. (2018). Factors Affecting Technology Integration in the Classroom. Alabama State University and The University of Alabama.

[30] Shu, Zhang, Wang, Zhang, Wang. (2021, May 19). Experiences and attitudes of elementary school students and their parents towards online learning in China during COVID-19. *JMIR*.

[31] Spinath, B. (2012). Academic Achievment. *ResearchGate*.

[32] Stefanich, G. P., Mueller, J. C., & Wills, F. W. (2016). A Longitudinal Study of Interdisciplinary Teaming and Its Influence on Student Self-Concept. *Routledge*, 42.

[33] Tylor, E. B. (1871). *Primitive Culture.*

[34] Wentzel, K. R., Jablansky, S., & Scalise, N. R. (2018). Do Friendships Afford Academic Benefits? A Meta-analytic Study. *CrossMark*.

[35] Wentzel, K. R., Jablansky, S., & Scalise, N. R. (2021). Peer social acceptance and academic achievement: A meta-analytic study. *APA PsycNet* .