

Evaluating the Impact of Teachers' Use of Emerging Technologies on Classroom Management

Tanem Ozaygin¹, Fahriye Altinay², Rustam Shadiev³, Gokmen Dagli⁴, Betul Yikici⁵, Zehra Altinay⁶

¹Primary Education School, Nicosia, Northern part of Cyprus, Mersin 10 Turkey

²Societal Research and Development Center, Faculty of Education, Institute of Graduate Studies.
Near East University, Cyprus

³College of Education, Zhejiang University, China, rustamsh@gmail.com

^{4,5}University of Kyrenia, Cyprus

⁶Societal Research and Development Center, Faculty of Education, Near East University, Nicosia, Cyprus

ABSTRACT

The use of technology in education has transformed learning and teaching processes, making them more effective, efficient, and accessible. The rapid development of technology has introduced innovative approaches in various areas, from classroom settings to assessment processes. Tools such as artificial intelligence (AI), augmented reality (AR), virtual reality (VR), and gamification enrich learning processes while positively impacting classroom management. These tools aim to transform traditional classroom management practices by increasing student participation and motivation. The purpose of this study is to identify the views of 12 primary school teachers in the Turkish Republic of Northern Cyprus (TRNC) regarding the impact of using emerging technologies on classroom management. The study employed the phenomenology design, one of the qualitative research methods. Data were collected through a semi-structured interview form and analyzed using descriptive analysis, resulting in the formation of themes. The findings revealed that assistive technologies have both positive and negative effects on classroom management, that teachers have limited competence in using these technologies, and that classrooms are not adequately equipped for technological use. It was recommended that teachers receive training on this subject.

Keywords: primary school, classroom management, teacher, student, emerging technologies.

INTRODUCTION

Today, with rapidly evolving and frequently renewing technology, it has become inevitable to feel its strong impact in almost every aspect of human life. The development of technology has significantly influenced various fields, including education. When examining the effects of technology on education, it is evident that it has completely transformed educational systems, renewed learning environments, and provided students with unique and individualized opportunities tailored to their needs (Bayer & Özek, 2021; Küçük et al, 2024) . One of the primary goals in education is to ensure permanent learning. For permanent learning to occur, students must actively participate in lessons. One of the most effective ways to engage students actively in lessons is by using emerging technologies. The use of emerging technologies shifts education from traditional teacher-centered approaches to more student-centered methods (Sung et al, 2020; Abbas et al, 2021).

When we look at the definition of education, we see that there are many definitions. However, in the most general sense, education is the process of desired and permanent behavioral change that the individual acquires through his own experiences. One of the most effective ways to achieve

‘permanent behavioral change’, which is also included in the definition of education, is for students to actively participate in the lesson. In order to better achieve this situation, technology experts and educators are working to create innovation in education, discover new teaching methods, involve students more actively in the lesson, improve students’ experiences and create permanent behavioral changes. Many teachers and educators around the world use assistive technologies to make lessons more fun and effective for students. Assistive technologies; It refers to new applications, tools,

Corresponding Author e-mail: gokmen.dagli@kyrenia.edu.tr

How to cite this article: Ozaygin T, Altinay F, Shadiev R, Dagli G, Yikici B, Altinay Z. Evaluating the Impact of Teachers' Use of Emerging Technologies on Classroom Management. Pegem Journal of Education and Instruction, Vol. 15, No. 3, 2025, 78-86.

Source of support: Nil

Conflicts of Interest: None.

DOI: 10.47750/pegegog.15.03.09

Received: 12.09.2024

Accepted: 22.01.2025

Published: 01.07.2025

materials and techniques that are added to the education system in order to improve knowledge learning, teaching and classroom management, enabling newly emerging or previously used technologies in education to continue to be developed and used. Individualization and gamification of learning is achieved through the combination of newly emerging or developed assistive technologies (For example, Artificial Intelligence (AI), Augmented Reality (AR), etc.) with pedagogical methods and techniques (Senemoğlu, 2020; Sung et al, 2020).

When examining definitions of emerging technologies, various descriptions emerge. In the broadest sense, emerging technologies are technological tools and materials incorporated into the teaching process to facilitate this process and enhance students' engagement in lessons (Chng vd., 2023). Additionally, emerging technologies refer to new applications, tools, materials, and techniques added to the education system to improve learning, teaching, and classroom management. These include newly developed technologies or enhancements of previously used technologies (Sung et al, 2020; Abbas et al, 2021)

Classroom management refers to the set of methods and techniques teachers use to create an effective classroom environment and manage student behavior (Özen & Yıldırım, 2020). Another definition describes classroom management as a systematic arrangement that includes planning, implementing, and evaluating educational goals, managing time, motivating students, and applying teaching methods and techniques within the classroom environment, based on various theories (Atasoy & Altun). Furthermore, classroom management is not solely aimed at correcting the behavior of students displaying negative attitudes but also at creating an environment where all students can maximize their potential (Çubukçu & Girmen, 2008).

As emerging technologies become more widespread, research on their use in education has also increased. A study conducted by Wali and Popal in 2020 aimed to identify the opinions of 30 graduate students regarding the impact of emerging technologies on classroom learning and the challenges that arise. The students emphasized that emerging technologies increased motivation, enhanced student participation, supported collaboration and cooperation among students, and fostered stronger interactions between teachers and students. However, they also pointed out challenges, such as the potential for students to be tempted to cheat and the negative impact these applications might have on social interaction among students (Wali & Popal, 2020).

In a study conducted by Leelavathi and Surendhranatha in 2024, the role of ChatGPT, a tool under the umbrella of artificial intelligence, in management education was explored.

Additionally, the study evaluated ChatGPT's impact on active learning, fostering critical thinking skills, and facilitating learning. The research was carried out with a total of 331 participants, including 282 students and 49 educators. The findings revealed that ChatGPT, as a product of emerging technologies, increased student engagement, enhanced critical and creative thinking, and positively influenced education management by providing educators with valuable pedagogical insights (Leelavathi & Surendhranatha, 2024).

In their 2023 study, Dimitriadou and Lanitis discussed how emerging technologies used in classroom settings impact education and the challenges they may pose. The findings indicated that the high cost of emerging technologies makes their implementation in school environments difficult. It was emphasized that if all schools cannot afford such technologies, educational inequality might arise. The study also highlighted the necessity for teachers to possess detailed knowledge of how to use these tools effectively. Teachers lacking sufficient expertise might encounter minor issues during lessons, leading to time loss and negatively affecting classroom activities (Dimitriadou & Lanitis, 2023).

Bozkurtlar and Samur's 2017 study gathered students' opinions on gamification in classroom management. The research focused on students' perspectives regarding leaderboard systems and the scoring elements in gamification applications, as well as the impact of these scores on student behavior. The findings revealed that students who received points felt happier, more motivated for lessons, and were more inclined to participate in classroom activities. However, students who did not receive points experienced a loss of motivation and became disengaged from the lessons entirely (Bozkurtlar & Yavuz, 2017).

In the study conducted by Mora in 2020, the effects of 'ClassDojo' technology, one of the gamification tools in education, on classroom management were examined. In the research, it was emphasized that the most important point that negatively affects classroom management is students talking and laughing among themselves while the teacher is teaching the lesson. It has been stated that the reason for this is that students do not enjoy the lesson, they get bored early, and the lesson is not interesting for them. It was stated in this research that with the gamification technology applied on students, the negative behaviors of the students decreased significantly and the positive behaviors of the students increased significantly. It has been stated that with gamification in education, students' skills such as cooperation, respecting teachers and friends, and improving their relationships are also improved (Mora, 2020).

In the research conducted by Rashid and Alcorin in 2024, a literature review was conducted on how assistive

technologies affect the management of education. When the findings obtained in this study were examined, it was found that emerging technologies may have positive and negative effects on educational management. The study emphasized that the use of emerging technologies such as virtual reality, internet of things, artificial intelligence, and augmented reality in the classroom environment will increase student participation and provide students with personalized and effective learning opportunities. This study has shown that, although these technologies have benefits, they can also create points that may negatively affect educational management. Emerging technologies can create inequality among students, harm privacy and ethics, and require individuals to make serious investments in infrastructure and professional development (Rashid & Alcorin, 2024).

Kontay and Karamustafaoglu (2023) aimed to determine the opinions of eight classroom teachers regarding the use of augmented reality technology in the classroom environment in 2023. When the findings of the research are examined, it is seen that augmented reality technology concretizes teaching, has an effective power in understanding the subjects better, makes lessons more fun, increases students' motivation for the lesson, motivates students and increases their interest in the lesson (Sontay & Karamustafaoglu, 2023).

In Arslan's study in 2020, answers were sought to questions about what artificial intelligence is, how it contributes to education, how artificial intelligence supports and develops education, and what these applications are in education. In this research, artificial intelligence is likened to intelligent computer applications or human-like intelligent machines. Artificial intelligence offers students opportunities such as individualized education and exploratory education. In this research, it was found that while artificial intelligence provides support for learning, it also provides great support to the school administration and teachers from an administrative perspective. Artificial intelligence supports school administration, from creating curriculum to creating staff schedules. In addition, they are responsible for ensuring the security of the school, exam management, etc. It provides direct support to the administration and indirect support to the education of students. With this study, it is seen that three applications of artificial intelligence are included in education. These; expert systems, intelligent tutorial and dialogue-based tutorial systems (Arslan K. , 2020).

With the growing importance of emerging technologies as a research topic, these technologies have also become a significant point of discussion in education. As technology advances, the world changes, and as the world changes, students' needs and expectations are reshaped. Today's children are born into technology-rich environments

and grow up intertwined with technology, expecting its presence in classrooms. For this reason, it has become essential for teachers to utilize these technologies both in managing classrooms and during lessons. Teachers must be well-informed about the advantages and disadvantages of emerging technologies, know which ones are more effective or ineffective for students, and incorporate these technologies into their lessons in an appropriate manner and frequency.

A review of the literature shows that there is substantial research on teachers' perspectives regarding emerging technologies, their impact on educational management and school administration, as well as their role in potential challenges and effects of emerging technologies on education.

Research has been conducted on the challenges emerging technologies may pose and their impact on education. However, no studies have specifically explored how teachers' use of emerging technologies affects classroom management. This study aims to fill that gap by examining teachers' perspectives on the impact of emerging technologies on classroom management. Accordingly, the primary research question is: "What are teachers' views on the impact of using emerging technologies on classroom management?" To address this question, the following sub-questions were posed:

1. What is the significance of emerging technologies in classroom management?
2. What emerging technologies do teachers use for classroom management?
3. What challenges are encountered in the effectiveness of emerging technologies in classroom management?
4. What are your suggestions for improving the effectiveness of emerging technologies in classroom management?

METHODOLOGY

Research Design

This study seeks the opinions of primary school teachers regarding the impact of emerging technologies on classroom management. Therefore, the phenomenology (qualitative) research design was employed. Qualitative research involves collecting data through methods such as observation or interviews, allowing researchers to gain holistic and realistic insights into phenomena and how individuals perceive their limitations and potentials (Baltacı, 2019; Tekindal & Arsu, 2020). Phenomenology, also known as the study of lived experiences, focuses on the essence of reality. In this approach, researchers concentrate on participants' individual experiences, examining how they perceive and respond to various events (Göçer, 2013).

Study Group

The study group consists of 12 teachers working in the districts of Nicosia and Famagusta in the Turkish Republic of Northern Cyprus during the 2024-2025 academic year. Participation was entirely voluntary.

Table 1: Distribution of Primary School Teachers Based on Demographic Characteristics

<i>Characteristic</i>	<i>Frequency (f)</i>	<i>Percentage %</i>
<i>Gender</i>		
Female	9	75,0
Male	3	25,0
<i>Age</i>		
Under 30	9	75,1
31-35 Years	1	8,3
36-40 Years	1	8,3
Above 50	1	8,3
<i>Professional Experience</i>		
0-5 Years	8	66,6
6-10 years	2	16,7
Above 15 Years	2	16,7
<i>Educational Level</i>		
Bachelor's Degree	7	58,3
Master's Degree	5	41,7

Table 1 presents the demographic characteristics of the teachers who contributed to the research. It was found that 9 of the participating teachers are female and 3 are male. Additionally, 9 participants are under 30 years old, 1 is between 31-35 years old, another one is between 36-40 years old, and 1 participant is over 51 years old. It was also noted that 8 of the teachers have 0-5 years of professional experience, 2 have 6-10 years, and 2 others have 15 years or more of professional experience. Among the teachers, 7 have completed their undergraduate studies, while 5 have also completed their graduate studies.

Data Collection Tool and Data Collection

In this research, to determine the views of 12 teachers working in the Nicosia and Famagusta districts of the Turkish Republic of Northern Cyprus during the 2024-2025 academic year, a semi-structured interview form consisting of seven open-ended questions was used. The interview form is divided into two sections: the first section contains personal information, while the second section includes questions related to the topic. The form was organized and prepared with expert consultation.

In this research, which aims to determine how the use of emerging technologies by elementary school teachers

affects classroom management, a qualitative data collection method, the interview technique, was chosen, and the semi-structured interview technique was employed. The participants voluntarily agreed to participate in the interviews. It was communicated to the participants that the information gathered from the interviews would only be used within the framework of the research, and that their personal information would not be shared elsewhere. This ensured that the participants provided honest, sincere, and accurate responses to the questions. Each interview lasted between 30 and 40 minutes. During the interviews, participants were not pressured, no prompts were given regarding their answers, and their responses were directly noted in the interview form.

The questions in the interview form prepared for the teachers are as follows:

1. Do you use emerging technologies to manage your classroom? If so, which ones do you use and for how long?
2. What are the positive and negative effects of emerging technologies on classroom management?
3. Are there any emerging technologies that negatively affect classroom management? If so, what are they?
4. In your opinion, what are the most effective emerging technology/technologies for classroom management? Why?
5. Do you feel adequate in using emerging technologies for classroom management? Why?
6. Are classrooms sufficiently equipped for the use of emerging technologies in classroom management? Why?
7. What are your suggestions to enhance the effectiveness of emerging technologies in classroom management?

Data Analysis

In this research, the responses given by the participants to the open-ended questions were written down, and the answers regarding the effects of teachers' use of emerging technologies on classroom management were analyzed for similarities and differences, leading to the creation of categories. Descriptive analysis was used while analyzing the data. In the descriptive analysis technique, through content analysis, similar or potentially related data were grouped together to form themes (Ültay, Akyurt, & Ültay, 2021). For each question, the answers provided by the participants were evaluated in terms of similarities and differences, and codes were created. The obtained expressions were tabulated. The 'QDA Miner Lite' application was also used for tabulating the data. Some of the sentences reflecting the main thoughts of the participants were provided in quotes without alteration. The elementary school teachers whose opinions are presented were symbolized as T1, T2, T3, T4... respectively.

FINDINGS

Under the first subproblem of the research, titled “What is the importance of emerging technologies in classroom management?”, the positive effects of emerging technologies on classroom management, according to teachers' views, include themes such as attracting interest and attention, personalized learning, making teaching concrete, learning by doing and experiencing, reducing undesirable behaviors, and creating multifaceted positive effects. The majority of stakeholders provided answers related to the theme of creating multifaceted positive effects. For example:

T11: “Emerging technologies support learning by increasing students' active participation in the lesson as they attract their interest and attention. Additionally, by enabling the teacher to use time effectively and efficiently in the classroom, they help prevent potential time loss during classroom management.”

T4: “In classroom management, emerging technologies are useful in increasing students' participation in the lesson. These technologies attract students' interest, curiosity, and attention to the lesson, and thus increase their participation. In this way, they provide great benefits to classroom management.”

T1: “Emerging technologies attract students' interest, increase their attention in the lesson, and support their learning in a fun way. This situation can greatly contribute to classroom management by reducing student behaviors that may negatively affect classroom management.”

When the teachers' views on the negative effects of emerging technologies on classroom management were examined, themes such as technology addiction, lack of awareness, distraction, multifaceted negative effects, and no negative effects were formed. The majority of stakeholders responded with answers related to the theme of ‘distraction,’ while fewer gave comments aligned with the theme of ‘no negative effects.’ For example:

T12: “I believe that if emerging technologies are used too frequently or incorrectly in the classroom, it will distract the students' attention and thus negatively affect classroom management.”

T7: “Although I think emerging technologies positively affect classroom management, I believe there are no negative effects of using these technologies in the classroom.”

T8: “Teachers' lack of awareness in using emerging technologies could have a more negative impact on classroom management than a positive one.”

The second subproblem of the research is the question “What emerging technologies do teachers use in classroom

management?” When the teachers' use of emerging technologies in classroom management was examined, it was found that the majority of teachers (58.30%) frequently use emerging technologies, while a small percentage (16.70%) reported not using them. The teachers stated that they use emerging technologies such as the Internet of Things, gamification in education, and artificial intelligence for classroom management. Most teachers (33.30%) use multiple emerging technologies concurrently, while the least frequently mentioned technology was the Internet of Things (8.30%).

T1: “I frequently use gamification in education and artificial intelligence technologies for classroom management. With artificial intelligence, I ask interesting questions to students to capture their attention and ensure they listen to the lesson. With gamification in education, I engage students by making learning fun.”

T12: “I use them. I use artificial intelligence when preparing worksheets. This helps make the lesson flow more smoothly and effectively in the classroom. I also use gamification in education. This technology is particularly effective in 1st grade. When used in reading activities (digital apple coloring), it helps increase the class's motivation.”

When examining the themes created from the views of participating teachers, it was found that the most effective emerging technologies are robotic coding, the Internet of Things, gamification in education, artificial intelligence, and the use of multiple emerging technologies together. 50% of the teachers stated that gamification in education is the most effective emerging technology. The reason for this is that it attracts students' attention. The teachers' views are as follows:

T4: “Gamification in education is the most effective emerging technology for managing classrooms, especially in the education of young children, because any type of game grabs their attention.”

T2: “Gamification in education increases students' motivation by capturing their interest, which reduces negative behaviors that might occur in the classroom.”

The third subproblem of the research, titled “What are the issues encountered in the effectiveness of emerging technologies in classroom management?” addresses the emerging technologies that negatively affect classroom management, the teachers' proficiency levels on the subject, and the equipment of classrooms, based on the teachers' views.

According to the participating teachers, the emerging technologies that may negatively affect classroom management include gamification in education, artificial intelligence, and the

Internet of Things. 25% of the participants emphasized that there are no emerging technologies that negatively affect classroom management, while about 40% responded with artificial intelligence. Some of the participants' comments are as follows:

T8: "I don't think there are any emerging technologies that negatively affect classroom management."

T9: "While there are positive aspects of using artificial intelligence in the classroom, there are also negative aspects. Artificial intelligence may weaken the bond between the teacher and the student. A negative impact on the relationship between students and their teachers will reflect on their overall education and will also negatively affect classroom management."

T3: "Artificial intelligence can make students overly dependent on technology. Excessive use of this technology can negatively impact students' critical thinking, questioning, and problem-solving skills. Students may become individuals who accept everything they hear, avoid research, and get used to everything being ready for them. This negativity can lead to the development of undesirable behaviors among students."

When teachers' proficiency in using emerging technologies for classroom management was examined, 33.40% of teachers stated that they feel competent, while 66.60% emphasized that they feel inadequate. Stakeholder views on the responses are as follows:

T7: "No, I don't feel competent. Because I don't have enough training on this topic."

T4: "I don't feel fully competent because I don't have sufficient training on using emerging technologies."

T8: "No, I don't feel competent because I don't have enough in-service training."

When examining the teachers' views on the adequacy of classroom infrastructure for using emerging technologies in classroom management, about 30% of the teachers emphasized that their classrooms have sufficient infrastructure and stated that they are in an adequate situation, while approximately 70% provided responses related to "Financial Issues" and "Infrastructure and Technical Problems," highlighting that their classrooms are inadequate. Some examples of participants' comments are as follows:

T2: "Our classrooms do not have sufficient infrastructure because our schools do not receive financial support."

T4: "They do not have sufficient infrastructure. Our classrooms lack technological infrastructure."

The question "What are your suggestions to increase the effectiveness of emerging technologies in classroom

management?" forms the fourth subproblem of the research. It is stated that participants provided suggestions to teachers, the Ministry of Education, administrators, and educational stakeholders. More than 50% of the stakeholders who contributed to the research suggested that teachers should receive training on the topic. The comments regarding the suggestions given by the participants are as follows:

T10: "Teachers should be trained on this topic. A teacher who knows what to do can manage time well without wasting unnecessary time in the classroom and can prevent students from losing focus."

T7: "In-service courses should be provided to teachers."

T12: "To increase the effectiveness of emerging technologies in classroom management, each technology should be used appropriately in suitable topics and lessons in a measured way. I think using it unnecessarily can distract students' attention. This can cause more harm than benefit from technology. Therefore, teachers need to be trained on the subject."

DISCUSSION

This study emphasizes the significant role of emerging technologies in education and their potential impact on classroom management. A detailed review of the literature, along with the perspectives of participating teachers, highlights that emerging technologies have both advantages and disadvantages. On the positive side, emerging technologies spark students' interest and curiosity, capture their attention, increase their motivation, and foster collaboration. However, challenges such as teachers' lack of expertise on the subject and the insufficient technological infrastructure in classrooms represent the negative aspects of these technologies. Therefore, it is crucial to carefully assess both the benefits and potential drawbacks of emerging technologies to ensure their successful integration into the education system.

A 2020 study by Wali and Popal explored the perspectives of 30 graduate students on the influence of emerging technologies in classroom learning and the challenges associated with their use. The findings revealed that students perceived emerging technologies as a means to boost motivation, improve student engagement, encourage collaboration and teamwork, and strengthen interactions between teachers and students. In their study, Wali and Popal (2020) indicated that emerging technologies have significantly contributed to students and education. In their research, they noted that emerging technologies increase student motivation. The findings of this study also show that the majority of teachers mentioned the multi-faceted positive impact of emerging technologies.

Additionally, when comparing the 2020 study by Wali and Popal and this research, it can be concluded that both studies agree on the positive aspects of emerging technologies but also acknowledge their potential negative aspects. While the findings of the two studies share similarities, they also have some divergent points. For instance, in Wali and Popal's (2020) study, emerging technologies were found to enhance the interaction and bond between teachers and students, whereas this study suggests that emerging technologies may cause interaction problems between teachers and students.

Leelavathi and Surendhranatha's (2024) study focuses on artificial intelligence. In their 2024 study, Leelavathi and Surendhranatha noted that ChatGPT, a product of artificial intelligence among emerging technologies, increased student engagement, developed critical and creative thinking, and positively influenced education management by providing valuable pedagogical information to teachers. The findings of this study show that artificial intelligence has positive aspects, such as providing personalized learning opportunities. However, when compared to Leelavathi and Surendhranatha's study, it was emphasized that in their study, artificial intelligence contributed to students' critical and creative thinking, while in this study, artificial intelligence was found to negatively affect and hinder students' critical thinking and problem-solving skills. In addition, some of the participating teachers stated that artificial intelligence, in particular, weakens the bond between teachers and students as well as among students themselves. It was emphasized that this situation could negatively impact student achievement and, indirectly, classroom management. Additionally, the teachers expressed concerns that students might take the easy way out, relying on AI instead of truly thinking for themselves. As a result, they warned that students could become individuals who believe everything they hear without question, potentially losing essential skills such as critical thinking, analytical reasoning, and problem-solving.

In Dimitriadou and Lanitis' (2023) study, the effects of emerging technologies used in classroom settings and the challenges these technologies might cause were discussed. According to the findings, the high costs of emerging technologies would make it difficult to use these technologies in schools. Furthermore, the updating of new versions of these technologies could incur high costs after their installation in schools. It was also noted that if emerging technologies are not implemented in all schools, educational inequality may arise. The findings of Dimitriadou and Lanitis' study and this research have yielded similar results. In their study, Dimitriadou and Lanitis stated that emerging technologies are very expensive and need to be updated continuously to keep up with rapidly evolving

advancements. Likewise, this research found that schools in the Turkish Republic of Northern Cyprus lack the necessary infrastructure, equipment, and budget to effectively use emerging technologies. The findings indicate that schools in the region are quite weak and insufficient in this regard. Both studies agree that the classroom infrastructure is insufficient for using emerging technologies, and that financial problems and the lack of technical infrastructure in classrooms hinder the use of these technologies.

When reviewing the literature, it is undeniable that gamification in education is the most widely studied among emerging technologies. Moreover, when examining the findings of this study, the majority of participating teachers stated that they use gamification in education and that it is the most preferred technology. In Bozkurtlar and Samur's (2017) study, students' views on gamification in education were explored. Bozkurtlar and Samur emphasized that gamification in education can have both positive and negative aspects. Similar to their study, this research also indicates that gamification in education can have both positive and negative effects. In both studies, it was noted that gamification attracts students' attention, enhances their motivation, and encourages engagement, while its negative effect is that it may provide an opportunity for students to disengage from the lesson. Furthermore, it was revealed that the participating teachers working in the Turkish Republic of Northern Cyprus used technologies such as gamification, artificial intelligence, internet of things, robotic coding in education, but they did not use emerging technologies such as augmented reality. However, in the study conducted by Kontay and Karamustafaoğlu (2023), augmented reality applications were studied and it was revealed that this technology has many successful aspects.

In Mora's 2020 study, the effects of 'ClassDojo,' a gamification tool in education, on classroom management were examined. The research focused on gamification in education and stated that gamification reduces potential negative behaviors in students while encouraging positive behaviors. It was also mentioned that gamification in education helps students develop skills such as collaboration, respect for teachers and peers, and relationship-building. In this study, 50% of the participating teachers stated that gamification is the best among emerging technologies. When comparing this study with Mora's 2020 research, both studies commonly emphasize that gamification technology can reduce undesirable behaviors in students. When examining the differences between the two studies, Mora's 2020 research highlighted that gamification in education encourages students to collaborate and share, whereas, in this study, the majority of teachers stated that it increases

student motivation. Additionally, this study indicated that gamification in education captures students' interest and contributes to classroom management.

CONCLUSION AND SUGGESTIONS

Conclusion

The results of the research show that emerging technologies have both positive and negative aspects. It was found that emerging technologies have a multi-faceted positive impact on students, teachers, and classroom management, rather than just a single positive effect. However, the negative impact emphasized was that emerging technologies can have distracting features, which may negatively affect classroom management. These results are similar to the results of Özen and Yıldırım (2020).

According to the findings of this research, it was noted that teachers frequently use emerging technologies. Teachers are applying technologies such as the Internet of Things, gamification in education, and artificial intelligence, with most of them using multiple technologies simultaneously rather than just one. The results of the study indicated that the most effective emerging technology is gamification in education. This is because, through games, students enjoy themselves, and this technology grabs their attention. These results are similar and overlap with the results of Bayer and Özek (2021).

While emerging technologies have positive aspects, this research also highlighted that they can have negative effects. According to the results, artificial intelligence emerged as a technology that negatively affects classroom management. Artificial intelligence may reduce the interaction between teachers and students, which could negatively impact classroom management. Additionally, when examining teacher competencies in using emerging technologies in classroom management, it was found that teachers practicing the teaching profession in the Turkish Republic of Northern Cyprus are considerably insufficient. The results indicated that teachers do not have enough knowledge and training on the subject. Furthermore, when examining the classroom infrastructure for using emerging technologies, it was concluded that classrooms are also inadequate in this regard. The reason for this is that classrooms lack sufficient infrastructure, and there is not enough budget to provide these technologies to the classrooms. These results are similar and overlap with the results of Leelavathi and Surendhranatha (2024).

Suggestions

There are policy making, managerial and teacher suggestions in order to enrich practical ways of the research. In policy

making side, it can be suggested that organizing in-service training is to enhance the technology literacy of teachers, administrators, and educators. In policy making stage, regular training on Emerging Technologies to ensure that teachers, administrators, and educators can effectively use emerging technologies, is suggested. In addition to this, ensuring equal access to emerging technologies by providing all schools should be provided with equal and sufficient levels of emerging technologies and classrooms should be equipped with the necessary technological tools. This contributes to facilitate equal and fair access to emerging technologies for both students and teachers. In policy making, a specific budget should be allocated to provide all schools with emerging technologies and it is suggested that textbooks and educational programs be revised to incorporate and support the use of emerging technologies.

Teachers are encouraged to attend in-service training programs organized by the Ministry of Education, as well as seminars held domestically or internationally on the subject. Teachers should actively conduct research to expand their knowledge of emerging technologies. Teachers should avoid both excessive and insufficient use of emerging technologies in classroom management. Additionally, they should become aware of the potential positive and negative impacts of these technologies. Teachers are encouraged to stay open to technological developments and adapt to evolving technologies in education.

In general, in this study, it was tried to evaluate the effect of teachers' use of assistive technologies on classroom management. In another study, it may be suggested to study how assistive technologies affect another area of education. In this study, only teachers' opinions were consulted. It may be recommended to obtain the opinions of administrators, students or experts working in the Ministry of Education.

REFERENCES

- Abbas et al, A. (2021). Emerging technologies in education for innovative pedagogies and competency development. *Australasian Journal of Educational Technology*, 1-4. doi:10.14742/ajet.7680
- Arslan, K. (2020). Eğitimde yapay zeka ve uygulamaları. *Batı Anadolu Eğitim Bilimleri Dergisi*, 75-81. Retrieved from <https://dergi-park.org.tr/tr/download/article-file/1174773>
- Atasoy, M., & Altun, M. (n.d.). Sınıf Yönetiminde Karşılaşılan Bazı Örnek Olaylar. *Kilis 7 Aralık Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, 43.
- Baltacı, A. (2019). Nitel araştırma süreci: nitel bir araştırma nasıl yapılır? *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 370. doi:10.31592/aeusbed.598299
- Bayer, H., & Özek, M. B. (2021). Yeni medya eğitimi ve önemi. *Journal of Communication Science Researches*, 127-128. doi:10.7456/100102100/004

- Bozkurtlar, S., & Yavuz, S. (2017). Sınıf yönetiminde oyunlaştırmaya yönelik öğrenci görüşlerinin incelenmesi. *Ege Eğitim Teknolojileri Dergisi*, 103-116. Retrieved from <https://dergipark.org.tr/en/download/article-file/419308>
- Chng vd., E. (2023). Examining the use of emerging technologies in schools: A review of artificial intelligence and immersive technologies in STEM education. *Journal for STEM Education Research*. doi:<https://doi.org/10.1007/s41979-023-00092-y>
- Çubukçu, Z., & Girmen, P. (2008). Öğretmenlerin Sınıf Yönetimi Becerilerine İlişkin Görüşleri. Eskişehir: Ahmet Yesevi Üniversitesi Mütevelli Heyet Başkanlığı.
- Dimitriadou, E., & Lanitis, A. (2023). A critical evaluation, challenges, and future perspectives of using artificial intelligence and emerging technologies in smart classrooms. *Smart Learning Environments*, 2-20. doi:<https://doi.org/10.1186/s40561-023-00231-3>
- Göçer, A. (2013). Türkçe Öğretmeni Adaylarının Dil Kültür İlişkisi Üzerine Görüşleri: Fenomenolojik Bir Araştırma. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi*, 29. Retrieved from <https://dergipark.org.tr/en/download/article-file/68252>
- Küçük et al, E. (2024). Teknolojinin eğitime etkilerine dair öğretmen görüşleri. *Uluslararası Sosyal ve Beşeri Bilimler Araştırma Dergisi*, 686-688. doi:<https://doi.org/10.5281/zenodo.10926957>
- Leelavathi, R., & Surendhranatha, R. C. (2024). ChatGPT in the classroom: navigating the generative AI wave in management education. *Journal of Research in Innovative Teaching & Learning*, 2397-7604. doi:<https://doi.org/10.1108/JRIT-01-2024-0017>
- Mora, A. B. (2020). Gamification for Classroom Management: An Implementation Using ClassDojo. *Sustainability*. doi:[10.3390/su12229371](https://doi.org/10.3390/su12229371)
- Özen, H., & Yıldırım, R. (2020). Teacher perspectives on classroom management. *International Journal of Contemporary Educational Research*, 99-100. doi:<https://doi.org/10.33200/ijcer.645818>
- Rashid, M., & Alcorin, A. M. (2024). Emerging technologies and innovation in education management. *International Journal of Advanced Social Sciences Research*, 1-9. doi:[10.31435/rsglobal_ijitss](https://doi.org/10.31435/rsglobal_ijitss)
- Senemoğlu, N. (2020). *Gelişim, Öğrenme ve Öğretim*. Ankara: Anı Yayıncılık.
- Sontay, G., & Karamustafaoğlu, O. (2023). Artırılmış gerçeklik uygulamalarının öğretim sürecinde kullanılmasına yönelik sınıf öğretmenlerinin görüşleri. *Gazi Eğitim Bilimleri Dergisi*, 311. doi:[10.30855/gjes.2023.09.03.004](https://doi.org/10.30855/gjes.2023.09.03.004)
- Sung et al, A. (2020). *Emerging technologies in education for sustainable development*. Manchester: Springer Nature. doi: https://doi.org/10.1007/978-3-319-71067-9_61-1
- Tekindal, M., & Arsu, Ş. U. (2020). Nitel araştırma yöntemi olarak fenomenolojik yaklaşımın kapsamı ve sürecine yönelik bir derleme. *Ufku Ötesi Bilim Dergisi*, 156. Retrieved from <https://dergipark.org.tr/tr/download/article-file/1355632>
- Ültay, E., Akyurt, H., & Ültay, N. (2021). Sosyal Bilimlerde Betimsel İçerik Analizi. *IBAD Sosyal Bilimler Dergisi*, 189-191. doi:[10.21733/ibad.871703](https://doi.org/10.21733/ibad.871703)
- Wali, A. Z., & Popal, A. W. (2020). The emerging issues and impacts of technology in classroom learning. *International Journal of Emerging Technologies in Learning (ijET)*, 237-243. doi: <https://doi.org/10.3991/ijet.v15i15.14175>