Enriching Teaching and Learning Environments with Contemporary Technologies

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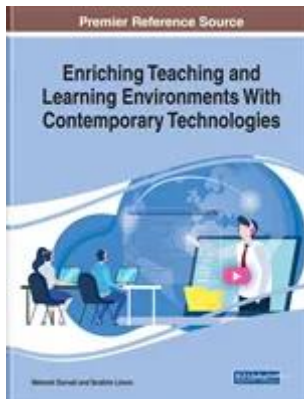**Email:** can.gulduren@ufuk.edu.tr

Abstract

In the last few decades, technology has transformed our life into better in many fields. One of those fields is education. Educational technologies have transformed the learning and teaching environments. Offline/online applications and social media have changed the traditional learning and teaching habits and skills. As far as learners are concerned, it has been empirically proven that the use of education technologies in the classroom makes learning easier and more enjoyable. On the other hand, it also poses threats to students such as internet addiction and cyberbullying. "Enriching Teaching and Learning Environments with Contemporary Technologies" is edited by Mehmet Durnali and İbrahim Limon. There are 15 chapters in this book. The book covers a wide range of topics including mass media and education, professional development practices, augmented reality applications, weblogs, use of technology in the classroom, technology assisted language learning, multi-user virtual environments, distance education, use of technological tools in physical and sports education, role of technology in early childhood, technology in pre-school and religious education, and material use in social studies education. The book is an essential research publication aimed at presenting exemplary practices in the use and management of technology for pedagogical purposes in learning and teaching environments. The book was published in 2020 by IGI Global. The book has xix+329 pages. The ISBNs of the book for different versions are; ISBN13: 9781799833833, ISBN10: 1799833836, EISBN13: 9781799833857. DOI number of the book is 10.4018/978-1-7998-3383-3.

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Introduction

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Review of the Book

"Enriching Teaching and Learning Environments with Contemporary Technologies" covers a wide range of topics including mass media and education, professional development practices, augmented reality applications, weblogs, use of technology in the classroom, technology assisted language learning, multi-user virtual environments, distance education, brain-break videos, use of technological tools in physical and sports education, role of technology in early childhood, technology in pre-school and religious education, and material use in social studies education. There are 15 chapters in this book. The topics addressed by the authors of 15 chapters are as follow:

Chapter 1: Mass Media and Education by İbrahim Sezgül. This study mainly aims to analyze the relationship between mass media, and education. The introduction part presents a brief explanation of what communication, mass communication, mass media television and radio, the internet, social media, and whatsapp. In the second part, the use of those media tools in education and their effects on people's behaviors are discussed. In the following part, the relationship between mass media and education, the role of mass media in education, and also the educator, teacher, and administration roles are explained. Corporate communication in education and its importance are emphasized, and finally, negative and positive effects of the main mass media on shaping behaviors of the target audience are discussed.

Chapter 2: Features of Effective Professional Development Practices for Teachers as ICT Users by Fatma Kübra Çelen and Süleyman Sadi Seferoğlu. This study mainly aims to present the current problems and suggestions for the solution of these problems by

examining the current situation of professional development practices for the development of the ICT skills of teachers. According to the results of the research, professional development practices included various problems such as lack of training content by needs and expectations, lack of quality of materials used, the necessity of the participation process, etc. Expected qualifications related to professional development programs are working with activities that support the teaching process, cooperation with colleagues, supporting theoretical knowledge with practical activities, expert support in the process of professional development, compliance with personal interests and needs. Based on the findings, the professional development programs should be structured by related criteria such as content, active learning, duration, joint participation, compliance with individual needs, colleague collaboration, and expert support.

Chapter 3: Teacher Candidate Experiences Related to Augmented Reality Applications by Murtaza Cicioğlu, Şenay Sezgin Nartgün and Salih Yılmaz. This study aims to compare and contrast educational presentations prepared with the help of PowerPoint (PPT) program and augmented reality (AR) and to explore teacher candidates' presentation experiences in terms of impact on learning, motivation, usability/employability, and positive and negative aspects. In this context, a qualitative study with a phenomenological design was conducted. The study group was composed of teacher candidates attending the Department of Computer Education. Study data were collected via the interview form developed by the researchers. Research results show that AR applications are superior to PPT presentations in many respects, and while both AR and PPT presentations have positive and negative aspects, traditional learning environments with PPT presentations are no longer sufficient to attract the attention and interest of today's students and meet current demands. Moreover, there is a need to increase educational content and infrastructure to improve the use of AR in addition to providing training to teacher candidates and teachers.

Chapter 4: The Effectiveness of Weblogs on Writing Tendency by H. Gülhan Orhan-Karsak. This study aims to investigate the effect of the weblog environment, which is used for writing, on writing tendency. A quantitative research design was used for this research. In this context, the "pretest-posttest control group design" was applied as an experimental research. Fourteen students who are at the fifth grade level in a public school participated in this research, seven in the experiment group and seven in the control group. While the experimental group worked on a weblog, the control group worked on a face-to-face environment. A writing tendency scale was applied as a pre-test and post-test. The results are discussed in terms of findings.

Chapter 5: A Professional Development Program Proposal for English Language Teachers: Using Technology in the Classroom by Zoe Marlowe and Abdullah Coşkun. This study aims to propose an online in-service teacher training program aiming to prepare EFL teachers in Turkey to use Google Classroom and Piktochart. The planned training module is provided on a virtual online platform known as Second Life (SL). Included in the technology training, there would be an introductory session in which the instructor could 'walk' the participants through the particulars of operating their virtual selves, as in their 'avatars'. The course itself could commence with a short tour of the virtual sim being used for the training sessions. Immediately following the introduction, attending avatars and the instructor would congregate in the theatre area sim of the VSTE Island conference venue in-world at SL. The instructor, addressing the participants from the virtual stage, would present according to the

agenda of showcasing the possible uses of the online software packages followed by step-by-step procedural instructions for the attendees to follow.

Chapter 6: The Place of Technology-Assisted Language Learning in EFL Listening: A Review of Literature and Useful Applications by Abdullah Coşkun and Zoe Marlowe. This study aims to review research studies incorporating different aspects of computer and mobile-assisted foreign language learning to enable English as a foreign language (EFL) learners to improve their listening skills. The literature review is based on studies of experimental research design in which the experimental group was exposed to computers or mobile devices to increase EFL learners' listening skills. Additionally, attitudinal studies dealing with EFL learners' perceptions about the integration of technology into EFL listening instruction were reviewed. From the literature review, it was realized that TALL helps EFL learners to improve their listening performance, and students hold favorable attitudes towards its use. At the end of the chapter, two useful mobile applications with the potential to enhance EFL learners'listening skills are introduced, and some recommendations are made.

Chapter 7: Design Process of Three-Dimensional Multi-User Virtual Environments (3D MUVEs) for Teaching Tree Species by Gamze Mercan, Dilek Doğan, Pınar Köseoğlu, and Hakan Tüzün. This study aims to realize the concept of biodiversity, which is one of the subjects covered by environmental education, with 3D virtual worlds platform and to realize the biological richness of users in their environment and to provide awareness of the species they see in their immediate surroundings.

Chapter 8: Distance Education Students' Opinions on Distance Education by Bayram Gökbulut. This study aims to determine the opinions of undergraduate and graduate-level distance education students about the education they received. Phenomenology design, one of the qualitative research designs, was used in this study. A semi-structured interview form was used as a data collection method. In this research, focus group interviews were conducted in three sessions with a total of 27 distance education students (14 master and 13 undergraduate). Distance education students prefer distance education because they work in a job; they consider distance education as a great opportunity for those who cannot receive a formal education. The students stated that the distance education infrastructure of the university is technically very good; they have almost no technical problems, but they have problems when connected via mobile applications. They stated that the course contents related to informatics are old because they have received education especially in the field of informatics and emphasized the importance of renewal.

Chapter 9: Development of Attitudes Towards Assessment and Evaluation Course: Brain Breaks® Videos by Bijen Filiz. This study aims to investigate the effect of Brain Breaks® videos on preservice teachers' attitudes towards an Assessment and Evaluation course. The experimental group consists of 47 preservice teachers of the Department of Physical Education and Sports Teacher. The control group consists of 55 pre-service teachers of the Department of Pre-school Education. Results indicate that Brain Breaks® videos improve students' attitudes towards academic courses.

Chapter 10: Physical Education Teachers' Attitudes Towards the Use of Technological Tools by Bijen Filiz. This study aims to determine whether physical education teachers' (PETs) views and attitudes towards the use of technology in education differed by gender, educational stage, type of school, age, and number of students in the classroom. The study sample consisted of 270 volunteer PETs. A parallel mixed design was used. The general

screening method was used in the quantitative study and content analysis was used in the qualitative study. Data were collected using the scale of attitudes towards the use of technology in education, and open-ended questions prepared by the researcher. It was determined that PETs who are women, work in high school, their classroom between 26-30 and 36-40 years old have more difficulty in using technology and classroom control in the course. Moreover, PETs working in private schools had more developed technical skills. The results indicate that PETs attitudes towards the use of technological materials should be improved.

Chapter 11: Reflections of the Use of Technology on Sports Education and Sports Products by Neslihan Arikan. This study aims to evaluate the effects of sports, sports education, technological uses, and their effects on sports education. The study is a descriptive one based on qualitative research methods. Document review has been implemented as a data collection method.

Chapter 12: The Role of Technology in Early Childhood by Nazan Kaytez. This study aims to explain the role of technology in early childhood. Today, children are acquainted with technological devices such as tablets, smartphones, and computers at an early age; they often use these devices both at home and school for educational and entertainment purposes. The age at which children should start to use technological devices has been discussed for a long time. Both parents and teachers should assume great responsibilities in this regard. Teachers need to consider curricula and decide on the use of technological devices within the framework of the objectives and achievements they determine. Besides, they should use technological devices together with traditional materials in educational activities. They should also guide parents and children about using technological devices effectively.

Chapter 13: Technology and Teachers in the Preschool Period by Gül Kadan. This study aims to explain the technology in the preschool period, the levels of teachers' use of technology, their views on technology, and their responsibilities in the use of technology in the preschool period.

Chapter 14: Evaluation of Studies on Technology in Religious Education Published in Turkey by Muhammet Mustafa Bayraktar. This study aims to determine the direction, trends, and problems of religious education studies in Turkey in terms of technology.

Chapter 15: Material Use in Social Studies Education: Cultural Fairs by Oğuzhan Karadeniz and Harun Er. This study aims to reveal the significance of cultural fairs as a material in the social studies course based on the importance of culture, cultural heritage, and cultural transmission. Culture is a crucial source of prosperity and identity of the nations. Nations maintain their presence through their cultural heritage and transfer these values to the next generations through cultural transmission. So, while the continuity of the culture is ensured, the cultural heritage is preserved. One of the ways to achieve this process is education. Within the education system, social studies course is an interdisciplinary course in which culture is handled with different dimensions. Cultural fairs conducted within the scope of this course are also a set of training in which various aspects of culture and cultural components are handled. In this context, the significance of the practice of cultural fairs as a material in the social studies course and its contributions to the field of education are examined in this study.

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entrepreneurs in education, professionals in education, volunteers in education, students and parents.

Conclusion

The rise in education technologies has opened up new horizons for educators and administrators. Globally, governments have made significant investments in educational technologies. Plenty of programs and projects are being implemented to make effective use of them. The ultimate goal of all these efforts is to improve the quality of learning and teaching. This brought the requirement of a deeper examination of the issue.

The aim of this book is to present exemplary practices in the use of technology and their management for pedagogical purposes in certain learning and teaching environments. This will help these practices to prevail and will guide the management of implementations and the development of new ones. On the other hand, it aims to analyze the problems that may arise during the development of education technology policies and the exploitation of technology for educational purposes and to provide some solutions to these problems. In line with these objectives, the book presents the findings of some experimental studies and allows for literature reviews. By doing so, the book aims to be a reference for educators who want to use technology in the classroom, for educational administrators who are responsible for developing and managing education technology policies, and for researchers who want to carry out a thorough investigation of the subject.

REFERENCES

Durnali, M. & Limon, İ. (Eds.) (2020). *Enriching Teaching and Learning Environments with Contemporary Technologies*. Hershey, PA: IGI Global.