Book review: Handbook of research on managing and designing online courses in synchronous and asynchronous environments

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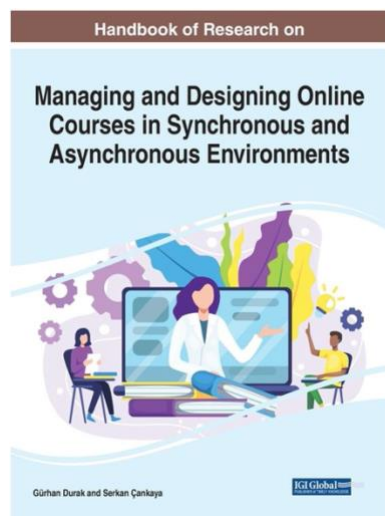| Keywords:	Abstract
Blended learning, Course design, Course management, Integrated systems	Handbook of Research on Managing and Designing Online Courses in Synchronous and Asynchronous Environments is edited by Gürhan Durak and Serkan Çankaya. The book was published in 2021 by IGI Global. The book has 731 pages. The ISBNs of the book for different versions are ISBN13: 9781799887010, ISBN10: 1799887014, EISBN13: 9781799887034. DOI number of the book is 10.4018/978-1-7998-8701-0.

1. Introduction

Handbook of Research on Managing and Designing Online Courses in Synchronous and Asynchronous Environments is edited by Gürhan Durak and Serkan Çankaya (Durak & Çankaya, 2021). The book was published in 2021 by IGI Global. The book has 731 pages. The ISBNs of the book for different versions are ISBN13: 9781799887010, ISBN10: 1799887014, EISBN13: 9781799887034. DOI number of the book is 10.4018/978-1-7998-8701-0.Literature

Systematic planning is necessary for the success of online learning. It might be claimed that giving online courses without preparation and theoretical framework can have negative consequences. Despite the fact that online education has become pervasive and popular, it has been recognized that its implementation may provide challenges. Technical issues, the inability to meet the learners' learning needs at their own pace, a lack of communication among learners and between learners and teachers, and a lack of quality materials suitable for online learning or the incorporation of materials used in traditional methods directly into online learning are examples of such issues. Thus, the theoretical background of online learning is essential for the success of online courses, and institutions and teachers offering online courses should take it into account.

The Handbook of Research on Managing and Designing Online Courses in Synchronous and Asynchronous Environments provides up-to-date knowledge and experiences regarding technologies, processes, and environments for online course design in distance education systems, with a focus on teaching and learning in online environments. It is an appropriate resource for online course designers, instructional designers, curriculum developers, administrators, educators, researchers, trainers, and students, as it focuses on instructional design and integrated systems.

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2. Review of the Book

The topics addressed by the authors of 29 chapters are as follows:

Chapter 1: The author, Katie Michelle Ross from Full Sail University in the United States, reviews well-known online learning theories in her chapter, "Online Learning Design: Immersive Technology & Theory for the 21st Century Learner," to show how to design a virtual reality learning environment that fosters student autonomy, cognitive learning, and community. In order to support practical steps that professionals, researchers, and educators may use to develop a learning environment that responds to the needs of online learners, the author integrates twenty-first-century students' learning behaviours with the topics of discussion.

Chapter 2: The authors, Fatih Yaman from Muş Alparslan University in Turkey and Nihal Dulkadir Yaman from Burdur Mehmet Akif University in Turkey, attempt to illustrate how various interactivity-related elements may be used effectively in online courses in the chapter "Interactive Course Design in Online Learning Environments: Interaction in Online Courses." Due to its user-friendly interface, simplicity of use, support for both web and mobile users, and convenience of access, they decide to utilize Google Classroom as the platform for communication.

Chapter 3: The authors, Nazire Burcin Hamutoglu, Nilgün Özdamar, Nuray Gedik, and Engin Kapkın, all from Eskisehir Technical University in Turkey, present the educational activity for the design of online learning environments carried out within the Eskisehir Technical University, Learning and Teaching Development Unit in the chapter, "Designing and Managing Synchronous and Asynchronous Activities: The Online Training Case for Faculty of Aeronautics and Astronautics". They describe each implementation step that was taken within the parameters of the study and introduce it.

Chapter 4: The authors, Gürhan Durak from Balıkesir University in Turkey, Serkan Çankaya from İzmir Demokrasi University in Turkey, Ömer Anıl Demir from Kastamonu University in Turkey, and Çağrı Çevre from Karacalar Mustafa Kangal Secondary School in Turkey, investigate the features of integrated systems in distance education with related literature and introduce and compare popular integrated systems.

Chapter 5: The benefits and drawbacks of asynchronous environments in online courses are covered by the authors Barış Mercimek from Siirt University in Turkey and Cansu Çaka from Muğla Sıtkı Kocaman University in Turkey in the chapter "Asynchronous Environments in Online Courses: Advantages, Limitations, and Recommendations." Additionally, they offer suggestions on how to get around some of the drawbacks of asynchronous environments in online courses.

Chapter 6: Alev Ateş Çobanoğlu, Zehra Esin Yücel, and Murat Kılıç, all from Ege University in Turkey, are the authors of the chapter "Online Course Design Tips for Boosting Learner Autonomy with Synchronous and Asynchronous Tools," where they define learner autonomy, discuss its function in online course design, go over key components in online course design and management, and provide design advice for enhancing learner autonomy in both synchronous and asynchronous online courses. They claim that because of the learners' flexibility, the autonomous learner profile is an ideal fit for online learning.

Chapter 7: The author of the chapter, "Effective, Efficient, and Attractive Instructional Design for Online Learning," Ayşe Taşkıran from Turkey's Anadolu University, provides insight into what can be done to make online courses attractive by incorporating elements that can be added to the instructional design of online courses for potential future online distance education practices that may be used during emergency remote teaching. Elements discussed in the chapter are elaborated in relation to the principles of instructional design, teaching methods and strategies, instructional technology, teaching materials and media, learner-teacher-content interaction, and feedback.

Chapter 8: The authors of the chapter "An Emerging Trend in Online Instruction: E-Flipped Classroom," Hamza Polat from Atatürk University in Turkey and Halil Kayaduman from İnönü University in Turkey, examine the e-flipped classroom from several angles. They claim that one of the learning techniques suggested by several studies to improve the effectiveness and engagement of online training is the e-flipped classroom model. They discuss the pre-class, in-class, and post-class online learning activities of the e-flipped classroom paradigm.

Chapter 9: Semiral Öncü from Balıkesir University in Turkey is the author of the chapter "Blended Learning: Blending in the Era of Advanced Technology," which provides a perspective on blended learning's potential uses as a remedy for shortcomings in traditional and online educational endeavours as well as the potential drawbacks of

implementing blended learning. Following a comparison and summary of a few popular blended learning models from the literature, the author moves on to developing a conceptual framework before briefly outlining the benefits and drawbacks.

Chapter 10: Emre Karagöz, Lütfiye Özge Güney, and Bahar Baran, all from Dokuz Eylul University in Turkey, set out to design and develop an online digital content library, content distribution screen, and forum system for the readers in the chapter titled "The Collaborative Digital Content Library Fostering Faculty Members' Collaboratively Building Learning Sources." In order to contribute to the creation of high-quality content, the system is anticipated to expand the knowledge and abilities of the instructors in a teacher community who may not be familiar with technology in the content preparation processes.

Chapter 11: The authors, Arif Akçay from Kastamonu University in Turkey and Ahmet Naci Çoklar from Necmettin Erbakan University in Turkey, state that interaction is a necessary activity to ensure learning in learning environments in the chapter "Interaction in Online Learning Environments A View from Theory to Practice." The chapter talks about the various forms of interaction that can occur in online learning settings.

Chapter 12: The authors of the chapter, "Promises and Pitfalls of Open and Distance Learning: Course Design During Corona Lockdown," Nil Göksel and Abdulkadir Karadeniz, both of Anadolu University in Turkey, seek to clarify the promises and pitfalls of ODL in terms of the actions that need to be taken and the essential elements of an online course design. Additionally, they want to help professionals, researchers, and teachers who could use theoretical and practical information for effective distance course design by adding updated sources of recent advancements from the Corona Lockdown.

Chapter 13: The author of the chapter "Purposefully Designed and Mindfully Facilitated Online Courses," David Starr-Glass of SUNY Empire State College in the United States, believes that there has been a resurgence of interest in higher education regarding how effectively distance learning online courses are conceptualized, designed, and facilitated at both the institutional and faculty level. Therefore, the author makes an effort to investigate the theoretical and practical challenges related to thoughtfully organizing and facilitating online distance learning courses.

Chapter 14: Fatih Erdoğdu from Zonguldak Bülent Ecevit University in Turkey and Ünal Çakıroğlu from Trabzon University in Turkey are the authors of the chapter, "Use of Humor in Instructional Multimedia for Asynchronous Online Learning: Design Process of Humorous Elements," and they aim to suggest a method for designing instructional multimedia using humorous elements for asynchronous online learning. They cite the benefits of including humorous aspects in educational multimedia as attention, recall, feedback, and humour breaks. They concentrate on the issue of how to include humorous aspects in educational multimedia and make a number of suggestions for further research in this area.

Chapter 15: In the chapter "Motivation of Management Information Systems Students Towards Online Learning in Covid-19 Pandemic: A Qualitative Case Study," Duygu Fındık Coşkunçay of Atatürk University in Turkey seeks to determine the variables that influence students' motivation for online learning during the covid-19 pandemic. The author concludes that ineffective group work, failure to meet career goals, a prolonged pandemic period, and the breakdown of social relationships have an impact on students' negative motivation, while the instructor, system support, and time management play a prominent role in students' positive motivation.

Chapter 16: In the chapter "Framework for the Structuring of Distance Education in Higher Education Institutions in the Covid-19 Pandemic Process," Ali Kürşat Erümit from Trabzon University in Turkey and İsmail Çetin from Ondokuz Mayıs University in Turkey examine the organization, responsibilities, and capabilities of Distance Education Centers at Turkish universities in order to identify changes that have occurred in the centers throughout the pandemic process through interviews with personnel working in these centers. They use content analysis to evaluate websites and a range of documents to look at the organizational structure, responsibilities, and resources of distance education centers.

Chapter 17: The authors, Esra Telli from Erzincan Binali Yıldırım University in Turkey, Fırat Sarsar from Ege University in Turkey, and Martha Cleveland-Innes from Athabasca University in Canada, present a theoretical understanding of emotional presence in online learning in the chapter, "Emotional Presence in Online Learning." They claim that research demonstrates that emotions play a significant role in effective online learning and that the rise of online courses, particularly in higher education, forces us to reevaluate the necessity of emotional involvement in the

learning process. They also emphasize how crucial it is for instructors and students to both express their feelings when learning online.

Chapter 18: Ahmet Doukan Sarıyalçınkaya from Ondokuz Mays University, Emrah Altun from Ondokuz Mayıs University, and Ali Kürşat Erümit from Trabzon University in Turkey are the authors of the chapter "Managing the Distance Learning Systematically: The Change of the LMS and Virtual Classroom Paradigm," which looks at the most recent methods for using learning management systems and virtual classroom software before, during, and after the pandemic.

Chapter 19: The Cognitive Load Theory is introduced in the chapter "A Cognitive Load Perspective to Instructional Design for Online Learning" by author Onur Dönmez of Ege University in Turkey (CLT). The author then presents well-defined cognitive load effects and supporting data from the literature. New theoretical frontiers are then given. Finally, the consequences of the Cognitive Load Effects are examined in relation to online learning techniques.

Chapter 20: The author, Ramashego Shila Mphahlele from the University of South Africa in South Africa, writes in the chapter "Digital Assessment Literacy in Online Courses (Formative/Summative) Rethinking Assessment Strategies in the Open Distance and E-Learning Institutions" that assessment is a useful process that helps teachers find teaching methods that are successful for all students because not every student learns or retains information in the same way. In light of this, the author makes the case that assessment literacy can help teachers better understand, evaluate, and use data on student performance.

Chapter 21: The author, Hakan Kılınç from Anadolu University in Turkey, attempts to identify the difficulties faced by distance education during the Covid-19 pandemic period and to suggest solutions to these issues in the chapter "Challenges Experienced in Distance Education and Solution Suggestions during the Covid-19 Pandemic Period." The study's findings indicate that the issues are the institutions' lack of readiness, the inadequate infrastructure, the increased digital divide among students, and the challenges in the measurement-evaluation procedures and inefficient support services during the pandemic era.

Chapter 22: The author, Merve Samioğlu from Istanbul University in Turkey, conducts research in the chapter titled "Experiences from a Basic Statistics Course Based on an Applet-Based Technology" that heavily utilizes applet-based teaching resources for a two-course sequence in introductory statistics. With the help of surveys that were distributed to the students, the author examines this experience and summarizes the responses.

Chapter 23: The authors, Şule Yılmaz Özden from Sakarya University, Valerie Harlow Shinas from Lesley University, Chu N. Ly from Framingham State University, and Nazire Burçin Hamutoğlu from Eskisehir Technical University, set out to examine the online learning experiences of preservice teachers from Turkey in the chapter, "The Challenges and Opportunities of Online Learning for Preservice Teachers During Covid-19 Pandemic: Evidence from the U.S. and Turkey." As a result, they discovered that even though preservice teachers understand and respect the value of online learning, they prefer face-to-face instruction.

Chapter 24: Ferit Karakoyun and Bülent Başaran, both from Dicle University in Turkey, attempt to identify the online learning readiness profiles of university students during the Covid-19 pandemic and to explain their profile membership through their background characteristics in the chapter "Profiling Students' Readiness for Online Learning during Covid-19 Pandemic." To achieve this, the authors gather information from 330 college students enrolled in a public university and use Latent Profile Analysis (LPA) to analyze the information.

Chapter 25: The authors of the chapter "Strategies to Maximize Asynchronous Learning," Remberto Jimenez and Veronica O'Neill, both of New Jersey City University in the United States, offer advice on how both teachers and students might succeed in asynchronous learning settings. They talk about what an asynchronous learning environment is and how it differs from synchronous learning environments. In the context of asynchronous learning, they discuss constructivist, social constructivist learning environments and active learning techniques. Finally, recommendations for future study are given along with the best practices for educators.

Chapter 26: Ayşen Karamete and Gülcan Öztürk, both from Balıkesir University in Turkey, are the authors of the chapter titled "Views of Academic Staff about the Assessment Processes of Online Courses during the Covid-19 Pandemic," which seeks to ascertain the opinions of academic staff regarding the assessment processes of online courses during the Covid-19 pandemic. Using semi-structured interviews, they gathered information from 42

academics who taught in six faculties across nine universities in Turkey. They discovered that students' cheating on online tests was the most significant issue raised by participants in connection to evaluation.

Chapter 27: Esra Barut Tuğtekin from Inonu University in Turkey is the author of the chapter "A Conceptual Study on Self-Regulation Skills in the Context of Virtual Identity Use in Distance Education," which aims to evaluate self-regulation skills in the context of virtual identity use strategies in distance education and to evaluate them in a conceptual framework. The author suggests conducting incentive activities to reflect self-regulation abilities in the usage of virtual identities and training teachers and students on how to use virtual identities effectively.

Chapter 28: The author, Ufuk Tuğtekin from Mersin University in Turkey, presents the justification for developing an instrument for carrying out such an assessment in the "Development and Validation of an Instrument for Online Learning Fatigue in Higher Education" and provides evidence of the reliability and validity qualifications of the scale in assessing the fatigue brought on by an excessive amount of online learning in higher education. As a result, the author proposes that the scale created within the parameters of this study be used to evaluate and enhance the levels of fatigue in people who engage in excessive online learning in higher education.

Chapter 29: The author of the chapter "Video Design for Online Courses," Eyup Yünkül from Balıkesir University in Turkey, claims that educational videos are a crucial learning tool in both face-to-face and online learning environments. Videos that appeal to both the visual and auditory senses appear as important teaching materials, according to many studies. The author's goal is to clarify the multimedia design concepts for instructional videos that can be used in online courses.

3. Conclusion

Rigorous planning and instructional design should be prepared for successful online learning (Agormedah et al., 2020). Giving online courses without preparation and theoretical background can have negative consequences. While online education has become so popular, there may be application issues (Durak et al., 2020). The technical problems that can arise in distance education environments (Alexander et al., 2012; James, 2002; Song et al., 2004), the inability to meet learners' learning needs at their own pace (Hetzner & Leen, 2012), not structuring it in a way to prevent learners from taking it easy (Alexander et al., 2012), and the lack of communication among learners and between learners and teachers (Alexander et al., 2012; Hetzner & (Jaggars and Bailey, 2010). The high dropout rate is another issue with online education programs. Numerous studies have found that the course completion rate in distance education is lower than in traditional classroom settings (Xu & Jaggars, 2011; Yuan & Powell, 2013).

A team of professionals should examine and organize all areas of the distance education system according to a theoretical framework for a successful deployment of distance education. These fundamental features of distance education are essential for the success of distance education and should be considered by institutions and teachers conducting distance education courses. Based on the aforementioned ideas, the objective of this book is to examine many facets of a successful distance education system and to serve as an indispensable resource for institutions and instructors conducting distance education courses.

The Handbook of Research on Managing and Designing Online Courses in Synchronous and Asynchronous Environments is a resource for institutions and instructors who are interested in developing and delivering online courses in synchronous and asynchronous formats. It covers topics such as course design, assessment, student engagement, and the use of technology in online education.

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