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Online teaching readiness of staff during the COVID-19 pandemic: Ege University sample

Abstract

The instant transition to online learning during the pandemic led to some neglections in instructional design and planning, with online teaching readiness seen as a major issue within this context. The authors of this study therefore believe that the readiness of instructors for providing online learning is a critical concern for such a transition and its future implications. In this survey/descriptive study, the authors investigated instructors' online teaching readiness through an adapted version of Chi's Online Teaching Readiness Questionnaire, which includes both open-ended and multiple-option questions, with code-theme relationships also presented. The data collection tool was administered to 200 instructors from different faculties working at Ege University, which is a western state university in Turkey. The findings from the questionnaire show that to a large extent, the instructors feel ready for online teaching. The authors share their suggestions on future research and applications in the last section of the paper.

Keywords: emergency remote learning, online learning, online teaching, perceptions, readiness

Introduction

In this study, the readiness of instructors for online teaching is discussed. During the contingency remote learning process, many attempts were made to improve online teaching. Examples of these are the establishment of learning management systems by universities, internet infrastructure work of governments, and orientation studies of universities for online teaching. However, although these studies can be considered as necessary criteria in online teaching, they are not sufficient to prepare a suitable ground for this type of teaching. The majority of the literature consists of studies on student readiness in the context of online learning. Existing and future studies concerning instructors will provide more opportunities for researchers to diagnose the problems faced in online teaching (Hoşgörür & Adnan, 2018). The success of online learning and teaching environments depends on the qualifications of the instructors (Tabata & Johnsrud, 2008). An Online Learning Consortium report states that one of the main reasons for not achieving the targeted success in online learning is that instructors do not find online learning valuable enough (Allen et al., 2016). In addition, studies show that previous use of online learning environments by academics positively contributes to their attitudes toward using instructional technologies (Adnan & Boz, 2015). In parallel, analysis of online learning studies between 2002-2018 shows that evaluation of learning, teacher beliefs and identity, teaching in transition to e-learning, an effective teaching process, and teachers' online competencies are the most popular topics (Cutri & Mena, 2020).

Many faculties lack experience in online teaching, and in the specific case of the pandemic, institutions were caught off-guard when it comes to online teaching. With teaching, it is important to develop content for instructors, create a comprehensive institutional system that will support them technically and administratively, and measure the attitudes and readiness of instructors with regard to online distance education, each as a source for education planning (Hoşgörür & Adnan, 2018). Readiness of instructors varies from institution to institution, making it very valuable to use data obtained

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in-house while providing support training on online teaching to instructors. The aim of the study is to examine the readiness of Ege University faculty members for online teaching during the COVID-19 epidemic. An assumption was made that the readiness of instructors for online teaching and their views on the subject will guide the remedial interventions to online teaching and the instructional technology training conducted[1] institutionally. On the other hand, the fact that there are a very limited number of studies available in which the readiness levels of the instructors are examined, and the majority of them include only students in the study sample, adds originality to the study. The readiness values examined are interpreted within the framework of the Technology Acceptance Model (TKM) and adult education, with a goal to explain these values as comprehensively as possible. It has been revealed that many institutions were not prepared for online teaching during the COVID-19 pandemic process, and therefore had insufficient preparation for supporting their instructors (Adiyarta et al., 2018; Farazkish & Montazer, 2019). In this process, it was observed that temporary improvement attempts, such as online teaching seminars, digital tool promotion and social responsibility projects increased. However, a solid foundation for online teaching requires a needs analysis of institutions and intervention design based on the data. With the findings obtained from this research, we aim to reveal the readiness of the instructors for online teaching and support them by determining their needs in this context.

Online teaching readiness

Online teaching readiness involves a variety of factors, including technology proficiency, instructional design, and pedagogical knowledge. Teachers need to be proficient in using various digital tools, such as learning management systems and video conferencing platforms, in order to effectively deliver online instruction. Additionally, teachers must possess strong instructional design skills, including the ability to create engaging and interactive online learning materials. Finally, pedagogical knowledge is critical for effective online teaching, as teachers need to understand how to adapt their teaching strategies to the online environment to ensure that students achieve optimal learning outcomes. Therefore, being prepared for online teaching requires a holistic approach taking into account all of these important factors.

Research questions

1. What is the level of perceived readiness of the instructors to teach online?
   As readiness is measured through tools that reflect the self-perceptions of the participants, this research aims to bring instructors' readiness to light. The participants will fill out a questionnaire that reflects their readiness levels to teach online.
2. What are the instructors' views on online teaching?
   Instructors' views will be gathered via the same questionnaire, allowing the authors to compare instructors' self-perceptions of their readiness and their current beliefs and performance in online teaching. This comparison is critical and makes the study unique, providing a new perspective to investigate readiness in educational studies.

Method

This is a mixed-method study incorporating quantitative descriptive outcomes of online teaching and qualitative results of instructors' views on online teaching. "A mixed methods research design is a procedure for collecting, analysing, and mixing both quantitative and qualitative methods in a single study or a series of studies to understand a research problem" (Creswell & Plano Clark, 2011). Convergent parallel design is preferred to collect quantitative and qualitative data at the same time, and merge the data to understand a research problem (Creswell & Guetterman, 2011). In this case, it is utilised to explain readiness levels of Ege University faculty members to teach online. For the quantitative data, descriptive tables are preferred in order to present the results in a plain way. For qualitative data, code-theme relationships are established to analyse qualitative questions.

Sample and procedure

The study group consists of lecturers who teach at Ege University. Ege is a research/research intensive university that had 59925 students and 3283 instructors in the 2022-2023 semesters, and has gained full accreditation institutionally. Academically it is one of the leading universities in terms of publications in various fields, especially the field of medicine, providing a valuable sample for the study.

Before the study, the participants attended online training organised by the institution. The instruments are shared with each member of each faculty via e-mail. Due to a too low response rate, the authors continued to collect data by distributing the instruments face-to-face. In total, the authors reached out to 200 academics.

The data shows that the majority of the participants (69.2%) are women (see appendix Table 1). Professors stand out the most, with 32.3% in terms of title. On the other hand, lecturers in the 35-45 age range seem to be the dominant age category. In addition, the highest participation in the study is from the field of health sciences.

[1] This study is a part of master's thesis of the corresponding author, with the second author as the supervisor.

Data collection tools

In the study, Online Teaching Readiness Questionnaire developed by Chi (2015) and adapted into Turkish by Hoşgörür and Adnan (2018) is used to measure the readiness of the instructors for online teaching. The internal consistency of the questionnaire was calculated as 0.91. The sub-dimensions of the questionnaire are respectively; learning-teaching process, social bond and student participation, technology support for instructors, course design and instructional design, and assessment and evaluation. The adaptation study includes items with 63 options, 13 open-ended, and 2 structured statements.

Data analysis

The authors applied descriptive analysis (frequency, percentage) regarding the demographic information of the instructors and the descriptive questions of the measurement tools used. Analysis of the research data is made via SPSS for the quantitative part, for the answers obtained from the qualitative questions, by establishing code, category, and theme relationships, which were analysed descriptively. After the establishment of the code-theme relationships, these relationships were validated by an expert researcher from educational sciences.

Results

In this section, results regarding instructors' online teaching readiness will be presented through descriptive tables, as well as paragraphs explaining qualitative answers of the measurement tool. The data presentation follows the order of the tool's 5 dimensions, which are namely: Teaching and Learning, Social and Student Engagement, Faculty and Technology Support, Course Development and Instructional Design, Evaluation and Assessment. The tables involve items and the frequency and ratio of the responses. After the presentation of results, the data will be discussed in the conclusion and discussion section of the article.

Teaching and learning dimension

Table 2 contains the answers given by the instructors to the questions related to the learning-teaching processes (see appendix Table 2). According to Table 2, in the learning-teaching process, the majority of the instructors were able to integrate technology into their lives both in their work and non-work situations and are open to learning new things on this subject. In addition, instructors mostly believe that student success in the 21st century depends on learning to use technology.

In table 3, although the statement "I disagree" stands out for "online teaching will take less time than face-to-face teaching", other expressions are also highly preferred, and these different opinions are represented in statistical terms (see appendix Table 3). On the other hand, online teaching is thought to provide flexibility and personal growth as per the instructor's answers.

According to Table 4, considering the factors motivating them to teach online, 102 instructors answered "yes" and 94 instructors answered "no" for their colleagues' online teaching (see appendix Table 4). This gave a score of 122 to 75 for the factor of the number of students choosing the course, 87 to 105 for the factor that online teaching is a programme priority, 132 to 64 for the factor that it is a response to field requirements, 139 to 55 for the factor that students have the necessary skills in online classes, and 74 to 120 for the factor that the leaders in the school have expectations about online teaching.

Table 5 discusses participants' views on situations that increase their willingness to teach online (see appendix Table 5). In this context, the ability to decide on the form of the online course and the institutional acceptance of online teaching stand out the most. On the other hand, participants stated that guidance, reducing the course load to develop online courses, financial support to develop online courses, grant opportunities, and the fact that online teaching works in academic promotions do not increase their willingness.

In Table 6, the majority of respondents stated that while they think that classroom management is more difficult in online teaching, on the other hand they are able to teach online effectively, the current business environment motivates them, and they felt more competent in online teaching during the pandemic process (see appendix Table 6).

Table 7 shows theme, category, and code relationships of the participants' views on the strengths of online teaching. In total, 192 answers were included into these relationships. Themes are determined based on the answers and divided into two groups as technological strength and learning-teaching process, because the participants' views on the strength of online teaching came either directly from a technology/device aspect or contributions to learning and teaching process. For both themes, the answers displayed similar patterns and categorized under four categories in total. Flexibility category involved codes such as freedom in terms of time and location, learning a comfortable setting, time management and saving time, and reducing the risks of contamination during the pandemic. In accessibility category, quick and easy access to asynchronous or synchronous courses and materials and reaching out to large audiences were highlighted by the participants. On the other hand, the participants stated that options for limitless and varied resources, using multimedia content such as videos, visuals, and finding quality contents are among the strengths of online teaching. Lastly, some participants stated that there is no distraction for teachers or learners, there are better interaction and communication opportunities, they can improve autonomy levels of learners in online teaching. However, this category (class management & teaching) consists of fewer answers compared to other categories.

Table 7
Instructors' views on the strengths of online teaching

Themes	Categories	Codes
Technological Strength	Flexibility	No time constraint No location constraint Comfortable setting Time Management Reduces contamination risks
	Accessibility	Quick and easy access Recorded & accessible materials Large audience
Learning-Teaching Process	Resources & Materials	Unlimited & varied resources High Quality content Multimedia use
	Class Management & Teaching	No distracting element & participation Interaction & communication Facilitates learner autonomy

Source: authors' own work.

Table 8 displays themes, categories, and codes emerged from instructors' views on limited aspects of online teaching. The answers were compiled under two themes which are technical & infrastructure challenges and learning-teaching process. As majority of the instructors stated students can have a hard time accessing internet, and schools can fail to provide strong infrastructure for the online setting, two categories namely technology access, and system failures & weak infrastructure were emerged under technical & infrastructure challenges theme. On the other hand, instructors mainly complained about the challenges of interaction, communication, assessment, participation, monitoring and managing the classroom, and teaching of experimental or practice-based courses. Hence, these answers were complied under four themes namely difficulty in practical and applied learning, assessment & evaluation challenges, communication & interaction, and classroom management. As the answers include references for multiple theme and category, it isn't possible to present the data in a descriptive frequency-percentage table.

On the other hand, the most noteworthy and comprehensive answers to this question are given below.

1. Being under more stress due to internet connection interruptions.

Table 8
Instructors' views on limited aspects of online teaching

Themes	Categories	Codes
Technical & Infrastructure Challenges	Technology access	Not every student can access to internet or a good internet and device.
	System Failures & weak infrastructure	Technical infrastructure issues cause problems. Internet connection can be instable.
Learning-Teaching Process	Difficulty in Practical and Applied Learning	Failure to perform experimental practice. No room for skills development.
	Assessment & Evaluation Challenges	Reliability is a problem. It is hard to understand if students actually learned.
	Communication & Interaction	Ineffective communication due to differences in online and face to face communication (using body language). Little to no feedback in courses. Reduced interaction levels. Inability to display, receive and read emotions due to the virtual envorinment. Students do not participate even if they joined the lesson. Reduced participation.
	Classroom Management	Crowded sessions are not effective. It is not possible to control and monitor students to see if they are actively listening as they don't open their camera.

Source: authors' own work.

2. "The lack of feedback and participation in the lesson, students can't see me and the material at the same time, they cannot read my body language and hear my voice with the expressive power of the material, we cannot create the rhythm of the narration and use it to direct the attention of the students online, rather completely losing control over the attention and interest of the student... In short: Not being able to teach but be more of a radio announcer."
3. The lack of directness and dynamism brought by face-to-face education, hence the lack of motivation caused by the communication problem. Online teaching does not fit into the spirit of university education.

Accordingly, it is revealed that the teaching staff generally do not find online teaching as effective as face-to-face teaching, they have problems in interaction and student participation, and have difficulties in applied courses. The major reasons behind this are presented below.

Social bond and student engagement dimension

In this section, the answers of the instructors to the questions and items they encounter regarding the social bond and student participation sub-dimension are presented through descriptive tables showing items and the frequency and ratio of the responses.

Table 9 includes the responses of lecturers on social and student participation. Accordingly, most faculty members have positive views toward student-student interaction, collaborative activities, online discussions and conversation activities in online teaching. In addition, it is not generally believed that high-quality learning experiences can be created without face-to-face interaction with students.

Technology support for instructors Dimension

This section includes the items that reveal the need for technology support of the instructors and the responses to these articles. The results are displayed through descriptive tables that include technological tools, and the frequency and ratio of their use. On the other hand, the results of the qualitative data are presented in the paragraph below the table explanation.

Table 10 describes varying levels of adoption and preference for different educational tools. LMS is highly preferred in online teaching as it is a requirement to provide online teaching in Ege university. Apart from LMS, software & apps, web sources, and projectors were the most used tools by the participants. On the other hand, computer labs, student response systems, smartboards were the least preferred tools by the participants.

When faculty members were asked how often they needed help using the technologies provided by the Distance Education Centre (UZEM), 8 answered never (4.0%), 54 rarely (27.0%), 109 sometimes (54.5%), 20 usually, and seven answered always. On the other hand, when asked whether the support offered by UZEM met the needs of the instructors, it was revealed that 3 instructors felt that never (1.5%), 22 rarely (11.0%), 46 sometimes (23%), 106 usually (53.0%) and 22 instructors answered that always.

The instructors attended professional development training and certificate programmes provided by UZEM and the Coordinator of Instructional Technology (CSR), they participated in courses, training, etc. on the use of technology in teaching. For the statement "My institution provides the necessary hardware-software infrastructure and support for online education/training processes", 6 of the lecturers stated that they strongly disagree (3.0%), 22 do not agree (11.0%), 55 slightly agree (22.5%), 75 agree (37.5%) and 41 strongly agree (20.5%). For the item "My institution provides an adequate professional development programme on the use of technology for learning", 4 instructors strongly disagree (2.0%), 18 disagree (9.0%), 67 slightly agree (33.5%), 79 agree, and 31 strongly agree. On the other hand, for the last item of this sub-dimension, "My institution offers an adequate professional development programme for the use of technology for learning.", 12 strongly disagree (6.0%), 24 disagree (12.0%), 49 slightly agree (24.5%), 82 agree (41.0%) and 32 strongly agree (16.0%).

Table 9

Instructors' answers to questions about social ties and student participation

Items	I strongly disagree		Disagree		I Slightly Agree		I Agree		I Strongly Agree	
	f	%	*f*	%	*f*	%	*f*	%	*F*	%
Student interaction and collaborative activities should be at the heart of teaching.	4	2.00	6	3.0	18	9.00	88	44.00	84	42.00
Online discussions can be used for teaching purposes.	6	3.00	13	6.5	52	26.00	96	48.00	33	16.50
Online chat activities can be used for teaching purposes.	8	4.00	17	8.5	51	25.50	90	45.00	34	17.00
High-quality learning experiences can be experienced without face-to-face interaction.	40	20.00	45	22.5	63	31.50	38	19.00	14	7.00
I can provide the necessary information online.	14	7.00	35	17.50	54	27.00	71	35.50	26	13.00

Source: authors' own work.

Table 10
Technological tools used by instructors in their courses

Items	Never		Rarely		Sometimes		Usually		Always	
	F	%	*f*	%	*f*	%	*F*	%	*F*	%
LMS	8	4.04	23	11.62	38	19.19	66	33.33	63	31.82
Web Resources	4	2.01	7	3.52	24	12.06	99	49.75	65	32.66
Software & Apps	19	9.74	19	9.74	44	22.56	75	38.46	38	19.50
Screenshot Taking Software	46	23.83	32	16.60	37	19.17	53	27.45	25	12.95
Virtual Classrooms	52	26.94	40	20.73	44	22.80	37	19.17	20	10.36
Video Conferencing	40	20.83	46	23.96	46	23.96	34	17.71	26	13.54
Smart Board	104	54.74	39	20.53	19	10.00	22	11.58	6	3.15
Projector	26	13.47	16	8.29	17	8.81	59	30.57	75	38.86
Video Processing Systems	46	23.96	39	20.31	38	19.79	45	23.44	24	12.50
Student Response Systems	96	50.53	34	17.89	33	17.37	17	8.95	10	5.26
Computer Labs	103	54.21	27	14.21	26	13.68	23	12.11	11	5.79

Source: authors' own work.

Course design and instructional design dimension

This section includes the findings of the instructors' responses to course design and instructional design.

The instructors were asked which techniques and methods they use in their courses, with the findings revealing that direct-teaching (presentation), discussion, question-answer and case study techniques were used more than other techniques (Table 11). For the direct teaching technique, 54.5% of the instructors chose always and 38% answered usually. For question and answer, 38.5% chose always, 44% usually, for the discussion method 29% chose always, 35% usually, and for the case study 24% answered always, 39% usually. The least used techniques were primarily drama with a 58% never, and educational play, which followed with a 52.5% never response.

The answers to the question "Is there technology (hardware, software or application) that you would like to use in your courses?" show that platforms such as Adobe Connect and Microsoft Teams, specific software prepared for the needs of this field, and web 2.0 tools that can be used for content and material support are highly regarded. Instructors look for tools that enable them and their students to connect simultaneously, and tools that meet specific needs of the course, such as online lab experiments, or virtual health science applications, as these courses require hands-on experience with equipment, settings, and experiments.

On the other hand, most of the instructors who had undergone training/certification related to online teaching were confident that they knew and used best practices in this form of teaching (Table 12). In terms of online course experience, a balanced distribution is observed, although online discussion and quizzes are less preferred than online chat tools. The findings for the use of learning management systems, which are mandatory to be used when online education is carried out, reveal that instructors tend to find themselves at least intermediate, if not above level.

Measurement and evaluation dimension

In the responses to the item "Please specify the technologies you use to monitor the learning status of your students", electronic quiz, discussion and learning management systems responses stand out. The answers to another question, related to a scenario where the use of technology in assessing the learning process can improve students' learning outcomes, and how this benefit can be achieved, show that the development of tools, technology and material are a recurring theme 17 times, including infrastructure facilities. In another theme, the "learning-teaching process", feedback was repeated 5 times, student participation and follow-up 6 times, research 11 times, and recommendations for assessment and evaluation 15 times. Notable answers to the question in the form of a full sentence are given below.

1. Instructors need to receive more practical training related to distance education design.
2. Course content needs to be properly restructured, with the duration reduced.
3. All students need to be able to access the services used by universities on equal terms. Apart from this, it is also important that the paid software used in the departments should be free for students.

Conclusion and discussion

Within the scope of this study, the readiness of the instructors working at Ege University for online education is descriptively discussed, with a total of 196 instructors from 15 faculties participating in the

study. Data obtained from the online teaching readiness survey reveals that the participants generally felt quite ready for online teaching. The online learning-teaching process, which is the first dimension of the survey, shows that approximately 80 percent of the participants can use technology in their lessons or for extracurricular activities in the online teaching process, support the use of technology, and enjoy learning new technologies in this context. It is thought that the training given to the instructors by the Ege University Coordinator of Instructional Technology was effective in this finding during the pandemic process. The fact that the majority of lecturers had participated in the training provided by units such as UZEM and CSR affiliated with the university, and that they had responded at medium and higher levels to "I know how best practices are designed in online teaching" in the survey, shows that the level of readiness perceived by the instructors is high. On the other hand, instructional design is a field of study that creates its own unique models by feeding from many different disciplines and is only possible to specialise in with programmes such as bachelor's and master's degrees. For this reason, it can be said that teaching staff only have a positive self-assessment regarding online instructional design.

From technology acceptance model perspective, the trainings can boost the perceived ease of use dimension. The perceived benefit dimension brings positive contributions, such as flexibility in terms of time, space and content according to the answers given to the question of the strengths of online teaching. The decision to use technology is not a choice, but a necessity. In Koloğlu's (2016) study, the readiness of instructors for distance education was determined as medium, which was mainly due to the fact that the answer to questions about readiness were predominantly „I am undecided". Central tendency bias is a risk of accumulation of responses in the center (Alkharusi, 2022; Westland, 2022). Hence, this can be considered as a limitation for likert scales, especially 5-point likert scale as Symonds (1924) claimed that 7-point likert scale has the optimal reliability.

Adiyarta et al. (2018) determined in their studies that there was no high level of readiness in any sub-dimension of the readiness scale, and that support was needed in all categories. In their study, Farazkish and Montazer (2019) determined that more than 60% of academics scored "below average". In this study, it is revealed that the majority of the lecturers felt ready for online teaching compared to other studies of the above-mentioned literature. The studies stated in the literature show that the level of readiness of the instructors is high (Junus et al., 2021) or at a medium level (Bolliger & Halupa, 2021), meaning that the findings should be evaluated in particular for samples or study groups, and that generalisations should be avoided. We believe that the details that are not included in the studies, such as training given during the research and the exposure time to online teaching, may be related to the findings to be obtained. Therefore, according to the studies in the literature, the readiness levels of instructors working in different institutions for online teaching differ from each other.

According to another finding of the study, teaching staff have different opinions on the issue of whether online teaching takes less time than face-to-face teaching, although they largely agree with the idea that online teaching gives flexibility in terms of programme, course, content, etc. The fact that different answers between face-to-face and online instruction were given by a significant number of participants may indicate a lack of awareness of online teaching. This situation is also encountered in preferred teaching techniques, where participants believe that online teaching contributes to professional development, development of new ideas, and intellectual development. So it seems that participants have some positive views of online teaching, and this may have positively affected their sense of readiness. Similarly, in the literature, in the study conducted by Ýnan (2013), it is stated that the faculty members feel that online education provides equal opportunities.

In this study, analysis of the factors that most motivate the participants with regards to online teaching and increasing their willingness shows that students have acquired the skills needed in online teaching, that online teaching reaches a lot of students, and that online teaching responds to many needs, especially related to this field. The insights highlighted here may indicate some of the concerns that the faculty members had when switching to online teaching early in the pandemic. Since it is known that these concerns are eliminated with positive experiences and trainings in the process, it can be inferred that they are effective in motivating. On the other hand, the institutional acceptance of online education and the ability to decide on the form of the course are among the most approved items. With this in mind, it becomes clear that participants appreciate that their work is accepted and approved by institutions, and that they have more freedom over course design. While the majority of the faculty members think the institution they work for motivates them to teach online, that they feel more competent in this process, and that they can teach effectively, they also stated that classroom management is often more difficult than face-to-face lessons. The basis of the difficulties experienced in classroom management may be the reasons why the instructors do not have enough skills and experience related to this new teaching style, do not receive enough institutional support, students experience difficulties in this transition process, etc. These studies can therefore play a critical role in terms of determining the situation and producing solutions for the needs.

The strengths of online teaching have emerged as two themes, flexibility, and the learning-teaching process. In the context of flexibility, answers such as programme, flexibility and diversity of time, space and materials, technological possibilities, time man-

agement, accessibility, and instant solutions were frequently repeated, while interaction, cooperation, motivation, autonomy, and tools were among the frequently provided answers in the other theme. On the other hand, the two themes that form the weaknesses of online teaching are infrastructure and the learning-teaching process. In the infrastructure theme, the keyword that the most repetitive answers are related to seems to be "connection". Regarding the learning-teaching process, low active participation, motivation, difficulty in assessment and evaluation, inability to make experimental applications, inability to develop skills, impossibility of supervision and observation, distraction, feedback, interaction, and communication are frequently repeated responses. Lee et al. (2021) point out that instructors feel dissatisfied even if they deliver knowledge online due to the lack of interaction with students. In the study, although the concept of motivation was on both sides, it was predominantly stated as a weak aspect. In particular, participants working in medicine, nursing and engineering faculties stated that they were not satisfied with the lack of practice in their courses and that this teaching style is not suitable for their courses. Therefore, it may be more effective to follow blended learning styles for applied courses in online learning.

Sunarto (2021) stated that faculty members evaluate the strengths of online teaching with access to supporting practices and materials, and the weakness of online teaching as a lack of understanding of online philosophy. The concept of online philosophy in Sunarto's (2021) study can be considered as instructional design and online learning theories. The transition to emergency distance learning with the pandemic may have created problems in instructional design, although online learning theories are based on constructivism, and lecturers who had not mastered this theory may have experienced problems in determining their own position and using tools. This study revealed that presentations are among the teaching techniques most used by instructors. The presentation technique is a component incompatible with constructivism and therefore with online instructional design. As a direct teaching technique presentations place teachers at the centre, which is a basic problem of adaptation. It is evident that the participants are trying to adapt the techniques they apply in face-to-face teaching to the online environment. Interaction and motivation stand out when it comes to the positive and negative aspects of online teaching. At this point, it is thought that the instructors are aware of the interaction opportunities brought by technological tools, but they have problems using them in their courses and have difficulty in reflecting the motivation they provide face-to-face to online teaching. Bolliger and Halupa's study on online teaching readiness (2021) reveals that there is no difference between experienced and novice teachers in terms of technical skills, but instructors with prior online teaching experience have significantly higher scores than those inexperienced in terms of course design, course communication, and time management, and especially novice instructors with 0-2 years of experience had lower scores than instructors with 7 or more years of experience. Similarly, Lim (2023) states that technological readiness has no impact on confidence or satisfaction with online teaching. Martin et al. (2019) support these findings by claiming that experienced teachers had the chance to learn what works well when teaching online over time, whereas new teachers often concentrate on simply putting their course materials online (Kumar et al., 2019).

The Social Bond and Student Participation dimension reveals that the majority of academics believe students should be at the centre of education, that online discussion and conversation environments contribute to teaching, and that the information needed can be given online. Although the findings obtained from this dimension are positive both in terms of online teaching design and readiness, it is revealed that the instructors have opposite experiences during the implementation phase, with the answers to the question on the weaknesses of online teaching supporting this directly. According to the findings on technology support to instructors, the most frequently used tools in their courses were learning management systems, web resources, software/applications and projection devices. The fact that Ege University has its own portal, and that all courses are managed from here, can be a factor in the prominence of the learning management system. The instructors sometimes require help when using the technologies provided by the CSR, and the support provided by the CSR mostly responds to their needs. Teaching staff largely believe that their institutions provide the necessary hardware and software infrastructure and support in the online teaching process, as well as providing adequate professional development programmes for the use of technology for learning-teaching purposes. However, when the instructors were asked about the suggestions they would like to add, it is seen that requests such as a training course for online teaching, were very common. In addition, they offered suggestions that basic necessities such as online meeting tools should also be provided free of charge by the university. In his study, Gay (2016) revealed that there are deficiencies in the accessibility of support teams in the view of teachers, especially in the pre-class stage, which affects teacher satisfaction. In line with Gay's (2016) findings, it is thought that the fact that the faculty members find the support provided by the CSR sufficient may be related to their satisfaction with the process.

According to the findings in the dimension of Course Design and Instructional Design, the most used techniques by academicians are presentations, question-answer, discussions, case studies and problem-solving, which are actually used in face-to-face education and can be adapted to online teaching by instructors. In the transition from face-to-face teaching to online teaching, the situation in the previous paragraphs of the discussion is again evident. Although the extent to which these techniques are applied is a critical factor

for both participants and their students, neither do this nor other studies on readiness address this. The related literature shows that the previous use of online learning environments by academicians has positively changed their attitudes towards using these technologies (Adnan & Boz, 2015). In this study, participants stated they had previously taken one or more online courses at intermediate and higher levels in online learning, received training, completed a certified instructor programme for online learning, knew how to create best practices in online teaching, and were able to use the learning management system, electronic quiz, online discussion and chat tools in their courses. On the other hand, since there was no expert team of external observations in the study and only self-evaluations were included, it should be remembered that this finding is based on self-reporting. There is a need for external measurement and evaluation with valid tools in terms of readiness (Akbana et al., 2021), with the responses of the instructors to the positive and limited aspects of online teaching supporting this. In addition, Sunarto's (2021) findings are in line with this inference. It does not seem reasonable to expect an instructor who is not trained in the field to become an expert in instructional design with only a small amount of training. However, as mentioned earlier, these confidence-reflecting statements may explain why participants felt ready. Participants highlighted remote connection applications for the tools they may want to use in their courses, software specially prepared for the needs of the field, web 2.0 tools that can be used for content and material support. The need for field-based material support shows that instructors have difficulty in creating content due to potential reasons such as limited time, technical competence and lack of multimedia design knowledge. As a result, it can be said that area-specific material pools are needed.

Findings of assessment and evaluation dimension show that e-quiz, discussion and learning management systems are mainly used to monitor the learning levels of the students. Among the opinions expressed about the use of technology in evaluating the learning process, it stands out that instructors should take courses on online instructional design and that universities should provide the necessary paid software and tools. It has been determined in almost every relevant study in the literature that faculty members should receive support in online teaching (Adiyartal et al., 2018; Altýnay et al., 2020; Almahasheer et al., 2021; Callo & Yazon, 2020; Hoşgörür & Adnan, 2018; Paliwal & Singh, 2021; Sunarto, 2021; Velasco & Cańada, 2020). A study by Khairi et al. (2021) also revealed a finding that the necessary equipment should be provided for lessons and training, and therefore the suggestions made by the instructors in this study, as well as the suggestions in many related studies in the literature, are in parallel. Training should be prepared for the needs of the instructors.

According to the findings of the Readiness to Online Teaching questionnaire, the lecturers have many positive opinions about online teaching and have expressed their willingness to use online tools, learn new tools and techniques, and even improve themselves in this area. To this regard, the training and institutional support that the instructors participated in at the beginning of the COVID-19 pandemic may have been effective. However, sub-dimensions of the survey show contradicting results in terms of teaching techniques, methods and their perceptions on the limitations of online learning.

Recommendations

Based on the results of this study, below are the recommendations for research on online teaching readiness for online teaching practitioners.

Instructors' perceptions of online teaching readiness were surprisingly positive. Considering the limitation of the measurement tool based on self-reporting, data can also be collected through interviews and observations on readiness determination. In addition, awareness training can be increased so that instructors can understand how to benefit from online teaching. This study lacks "experience" as a variable to compare readiness levels, hence it is recommended that experience can be measured as a variable to do comparative analysis. Both this study and other studies in the literature show that instructors need support in the context of online teaching. To this end, online teaching support should be increased. Although the participants developed an internal understanding of teaching with the experience and were able to realise the possibilities of the use of tools, the findings show that there is a need for expertise in subjects such as educational philosophy, learning theories, teaching methods, measurement, and evaluation beyond the learning-teaching process. Finally, instructors can be supported by collaborative activities in which knowledge is formed among learners by taking advantage of the theory of adult education, providing the autonomy they need and placing them at the centre of learning.

The appendix is available in the online version of the journal.

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