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Student Experiences on Emergency Synchronous Online Teaching in Higher Education

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Abstract: This research aims to reveal university students' experiences, expectations, and suggestions regarding synchronous online teaching. For this purpose, the study was conducted in a qualitative research case study design. The study group of the research consists of 24 university students. The research data were collected using a semi-structured interview form and document review technique. The data obtained through the semi-structured interview form were analysed using the descriptive analysis technique through the MAXQDA qualitative data analysis program. Research findings show that students have problems accessing devices and the internet. Students and instructors are not competent in using technology and do not have pedagogical content knowledge. The findings reveal that students do not open their webcams and are unwilling to attend and participate in classes because the strategies used in the learning-teaching process are not suitable for classroom interaction. Additionally, students could easily cheat in online exams and had some problems about self-regulation skills. In line with these findings, it has been proposed self-regulated learning framework, formative and authentic assessments and the "community of inquiry" framework.

Keywords: Cheating, community of inquiry, lack of classroom interaction, pedagogical content knowledge, self-regulated learning

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Introduction

A virus called Covid-19, which emerged in the last months of 2019, started to spread in a short time due to its highly contagious nature. After the World Health Organisation (WHO) announced Covid-19 as a global epidemic in March 2020, almost all countries started to take various measures to slow the spread of the epidemic. Within this scope, various measures are in place such as social isolation, the temporary suspension, restriction, or cancellation of many events worldwide (congresses, festivals, culture-art events, sports tournaments, etc.), cancellation of national and international flights, and partial or total curfew or quarantine announcements (Ivanova & Craver, 2020). According to UNESCO (2020), most governments worldwide have also had to temporarily close educational institutions to contain the spread of the Covid-19 outbreak. More than 1.5 billion students worldwide have been affected by school and university closures due to the Covid-19 outbreak (UNESCO, 2020b). Countries have initiated various studies to minimise this effect. For example, in Turkey, Council of Higher Education (CoHE) decided to rapidly switch to distance education, approximately three weeks after the closures, not to interrupt education at the higher education level, and these decisions were immediately implemented. In addition, almost all institutions monitored health organisations scenarios regarding the epidemic due to the uncertainty of the epidemic process.

Three scenarios are given on the epidemic's future in the report titled "The future of the -19 pandemic: lessons learned from pandemic influenza" published by (Center for Infectious Disease Research and Policy [CIDRAP] on 3rd April 2020). According to the data obtained from these three different scenarios, the whole world should be prepared for at least 18-24 months of Covid-19 activity no matter what scenario comes true. Such a possibility raises the risk of universities closing again, at least intermittently. Because of the need to maintain the "social distance" that is part of the requirements of protection from the epidemic, the capacity problem at universities and the problems that many students will cause in the dormitories may lead one to move from technology-based face-to-face instructional models to synchronous online instruction through technology or offline instruction and to hybrid instructional models that combine online instruction or online instruction with face-to-face instruction.In general, online teaching is an applied learning and teaching style and an important complement to traditional teaching (Do, 2018; Yamagata-Lynch, 2014). However, our circumstances have almost completely turned this definition upside down. Although online instruction has two main designations, synchronous online instruction and asynchronous online instruction, sometimes hybrid applications in which these two formats coexist or are delivered separately or together with face-to-face instruction can also fall within the realm of online instruction.Hrastinski (2008) refers to asynchronous online learning as an online process facilitated by communication tools such as e-mails and discussion boards, supporting business relationships between students and teachers even when participants are not online at the same time. It defines synchronous online learning as

an online process supported by communication media such as video conferencing and chat. According to some researchers, when compared to asynchronous lessons, the reason why synchronous lessons cannot become widespread is that synchronous lessons include high costs, bandwidth limitations, difficulties encountered in practice, insufficient tools, and timing problems (Do, 2018; Lowenthal et al. 2017; Park & Bonk, 2007).

Additionally, the flexibility and convenience of asynchronous lessons in online processes contributed to their popularity (Chang et al.2015), leading to the widespread use of asynchronous online learning (Do, 2018; Yamagata-Lynch, 2014). However, over time, research and practices regarding asynchronous online courses have revealed that asynchronous online courses contain limitations such as the isolation students feel, delayed feedback, and lack of physical communication (Do, 2018). Research on synchronous online courses compared to asynchronous online courses has: immediate feedback, immediate interactive clarification of meaning, high motivation, greater participation, a greater sense of presence, and a commitment to be present and engaged (Do, 2018; Martin & Parker, 2014), and argues that it allows students to benefit from both face-to-face and online courses simultaneously (Bower et al., 2015; Do, 2018; Romero-Hall & Vicentini, 2017).

At the beginning of the epidemic process in Turkey, synchronous online education under the title of distance education has been a widely used model. During the Covid-19 global epidemic in Turkey, university students have completed almost all courses synchronously and their exams online (CoHE, 2020). In this process, universities, educators, and students have had a lot of online teaching experience due to the spring semester's compulsory online teaching. In general, a complete online course requires technology support, a detailed lesson plan design, and teaching materials such as audio and video content. However, the sudden emergence of Covid-19 has left many educators confronted with the challenges of online teaching and this emerging new situation, without any knowledge about online teaching and online pedagogy experiences, without prior preparation for online teaching, and insufficient support from educational technology teams. According to CoHE (2020), educators with sound experience in face-to-face instruction have difficulty with synchronous online courses because of the different pedagogical characteristics of face-to-face instruction and the pedagogical characteristics of online instruction.

Universities and educators are located on one side of online teaching, while students are on the other. In the days of Covid-19, students, like instructors, faced synchronous online teaching very quickly. This study aims to get the experience, expectations, and suggestions of the students who participate in the education process, among the most important elements of the online teaching process. The research results will increase the quality of online education by providing information about the design of learning environments in higher education, which will most likely be carried out online in the

coming days. The following questions were sought during the research process in line with this purpose.

1. What are the students' experiences regarding their devices and the internet usage in synchronous online education environments?
2. What are the students' experiences on the synchronous online learning-teaching process and their suggestions based on these experiences?
3. What are the students' experiences on the online exams and their suggestions in line with these experiences?

Method

Research Design

In educational research, the process dimension is taken into consideration in general and it is investigated how the research group is affected in the process and the related process. Case studies are used when research questions are related to the process (Merriam, 1998). In this study, a case study from qualitative research designs (exploratory) was used to understand better the experiences and ideas of the participants regarding a particular process (Lincoln & Guba, 1985; Merriam, 1998). An exploratory case study is defined as a study that opens the door for further investigation of an observed phenomenon. It is stated that the questions used in such studies have a general nature and that the data obtained from the research form the basis for a deeper study or to produce hypotheses (Yin, 2014). The observed phenomenon that caused the research is the unwillingness of the students to participate in the synchronous online lessons and the lack of attendance to the lessons when compared to face-to-face lessons. With this study, which was planned to explore the possible causes of this situation, it was aimed to define and explain the existing problems. In this way, it was thought that a holistic perspective on the causality of the existing situation would be provided, and the results obtained could provide practical information to educational researchers, new research, and educators. In the study was used the intertwined holistic single-case design. A single-case was examined in three different analysis groups (associate, undergraduate and graduate) and evaluated holistically (Yin, 2014). In this study focused on the online teaching process. But the rapid transition to online teaching without preparation due to the global epidemic and the fact that the data only contains information about this process is the limitation of this research.

Participants

In the qualitative research approach, participants are selected for a specific purpose from those who will best express the research problem (Creswell, 2014). The

participants of this research are students who participated in both face-to-face and simultaneous online education in the 2019-2020 academic year. It is stated that the model of qualitative research and participant levels, data collection and reaching consistent data saturation will be decisive in estimating the sample size (Marshall, Cardon, Poddar, & Fontenot, 2013). This study started with 24 students who volunteered to participate in the study, and the number of participants was planned to increase if the expected data saturation is not reached (Creswell, 2014). However, the research was completed with 24 students due to the expected data saturation. The participants of the study were determined using the criterion sampling technique (McMillan & Schumacher, 2006), one of the purposeful sampling methods. The criteria for criterion sampling are to be a student at the university where the research was conducted in the fall and spring semesters of the 2019-2020 academic year and to attend synchronous online courses and midterm and final exams. If these criterions were met, it was assumed that even a student in the first year of university and participating in the researchcould compare and evaluate these two different teaching environments. The study sample consists of 24 university students, including 12 associate, 10 undergraduate, and 2 graduate students. Among the participants in the study, the associate degree students were coded as "AD1, AD2, AD3..."; undergraduate students "U1, U2, U3...", and graduate students as "G1, G2...". Information on the study group is given in Table 1 below.

Table 1.

Information on the Participating Students

Student	Gender	Class level	Student	Gender	Class level
AD1	Female	2	U1	Female	3
AD2	Female	2	U2	Female	3
AD3	Male	2	U3	Male	3
AD4	Female	2	U4	Female	4
AD5	Male	2	U5	Female	4
AD6	Female	2	U6	Female	3
AD7	Male	2	U7	Female	4
AD8	Male	2	U8	Female	3
AD9	Female	2	U9	Male	3
AD10	Male	2	U10	Female	3
AD11	Female	2	G	Male	1
AD12	Female	2	G	Male	1

Data Collection Tools

The design and management of the case study are defined as a logical plan that requires an explanatory or descriptive structure, designed to address each relevant data source leading to the primary research questions, theoretical propositions, data collection, interpretation, and final analysis of a study (Yin, 2018). The data of this study were obtained from semi-structured interviews and archive records containing videos included in e-mails sent to academic units by the Department of Information Technologies and documents included in e-mails sent to academic units by the Rectorate. Semi-structured interviews were considered the primary data source. While preparing the interview questions, the researcher first conducted a literature review regarding distance education in general and synchronous online education. Additionally, the experience of the researcher, who took part as an instructor in the synchronous online teaching process, and the experiences gained during the qualitative research she had previously carried out at home country and abroad, were guiding both in the formation of the interview questions and in the whole research process. The drafted interview questions were tested by interviewing two students who took lessons from the researcher and volunteered to participate in the pilot study part of the research. The questions were made ready for use after the necessary arrangements. The semi-structured interview form used in the study consists of two parts. In the first part of the form, educational information was asked from the participants in the research, and the second part consisted of semi-structured interview questions. During the research process, the students were asked the following questions in general.

1. What are your experiences with the devices you use and the internet in synchronous online education environments?
2. What are your experiences on the synchronous online learning-teaching process and your suggestions based on these experiences?
3. What are your experiences on the online exams and your suggestions in line with these experiences?

Data Collection

The university where the research was conducted is a foundation university in Istanbul with various departments, faculties and colleges that provide education mostly in the field of Health Sciences. After the approvals of the university's "Ethics Committee" (Number: 2020 / 06-459) and the Rectorate, all university academic units were informed about the work to be done by adding these documents and volunteer students were asked to be encouraged to participate in the study. Twenty-five students who volunteered to participate in the study, directed by academic units, were contacted via phone. During these interviews, students were given detailed information about the work to be done and asked again whether they were willing to participate in the study.

One student stated that they gave up participating in the research because the interview required a video recording. The day and time of the interview were determined with the participants, and the interviews were conducted online via Microsoft Teams, and video recordings were taken. The "Informed Consent" prepared before the participants could not sign the study since they could not be together. However, the online meeting process of the researcher and participants at the specified day and time was started with a video recording. The students who participated in the study were first asked to introduce themselves. The informed consent form was announced, information was given about the research process, and finally asked whether they volunteered to participate in the study under these conditions. After the students expressed their willingness to participate in the study, interviews were initiated. Although the interview questions of the study usually contained three questions, if the experiences mentioned by the respondent in answering each question were not clear, additional questions were asked to obtain detailed information, details were obtained, and, when necessary, the researcher repeated the words used by the participant to confirm the researcher's understanding.. After the interviews were completed at the data collection stage through document analysis, electronic correspondence between the Rector's Office, the Department of Information Technology, and the academic units was reached through e-mails. Each correspondence was copied and pasted to a new Word document. These documents have been filed for review during the analysis phase of the research. The videos created by the Department of Information Technologies to support instructors and students in the online teaching process was another data source. These videos were downloaded from the inbox for the analysis phase, and a separate folder containing these videos was created.

Data Analysis

The video recording of the semi-structured interview form via Microsoft Teams started on 17/06/2020 and ended on 17/08/2020. Interviews with students vary between 37 minutes and 79 minutes. The average time spent in interviews is 54 minutes. After the interviews ended, the interview recordings were monitored one by one; the interviews between the researcher and the participants were written in the MAXQDA 2020 qualitative data analysis program, prepared for the descriptive analysis process, and analysed in the same program. In addition, in this process, electronic correspondence between the Rectorate, and academic units regarding distance education, and the videos created by the Information Technologies Department to support instructors and students in the online teaching process were examined and related information was combined. The themes were created following the research questions, the codes belonging to each question's theme were analysed and interpreted according to the research purpose. The visuals presented in the research findings are given in Table 2 below.

Table 2.

Images Used in Data Visualisation

 **Themes**	The meaningful whole of the categories			(Strong) coexistence and/or conflicts between categories, codes, or subcodes
 **Categories (in different colours)**	Meaningful structures formed by the combination of codes			(Weak) coexistence and/or conflicts between categories, codes, or subcodes
 **Codes (in different colours)**	Meaningful structures formed by combining subcodes			Themes main subject and the themes
 **Subcodes**	Subcodes that make up the codes			

*Different colours used in categories and codes have been used to visualize different categories and codes.

Validity and Credibility

The validity and credibility of the results are considered one of the most important scientific research criteria. For qualitative researchers, a credibility query raises the question, "Can the findings be trusted" (Korstjens & Moser, 2018; Lincoln & Guba, 1985). According to them, there are several definitions and criteria for credibility, but the most well-known criteria are trustworthiness, transferability, reliability, and verifiability defined by Lincoln and Guba (Korstjens & Moser, 2018). It is recommended to use one or more of these strategies to check the study findings credibility. In this study, confirmation was used by asking the participants whether the study's findings reflect their thoughts correctly; this was conducted to ensure credibility. For this purpose, the questions and answers were repeated, and the meaning was clarified during the student interviews to confirm whether the students understood the question correctly and whether the answer was understood correctly by the researcher (Lincoln & Guba, 1985). Another technique used to ensure credibility is triangulation, which involves two or more data collection methods (Lincoln & Guba, 1985). In this study, the triangulation technique method (Lincoln & Guba, 1985) was used. In addition to the interviews, documents sent to students and faculty by the Registrar's Office and the Information Technology Department were also examined. Another technique used to ensure credibility is transferability. An "intense definition" of the participants and the research process was made to enable the reader to evaluate whether the findings can be transferred to their environment to ensure transferability (Korstjens & Moser, 2018; Lincoln & Guba, 1985). Additionally, the data were reported and quoted in detail (Johnson & Christensen, 2014). The codes are presented with code matrix scanners tables, code networks figures, and code frequency shown in the figures to highlight which student made the statement.

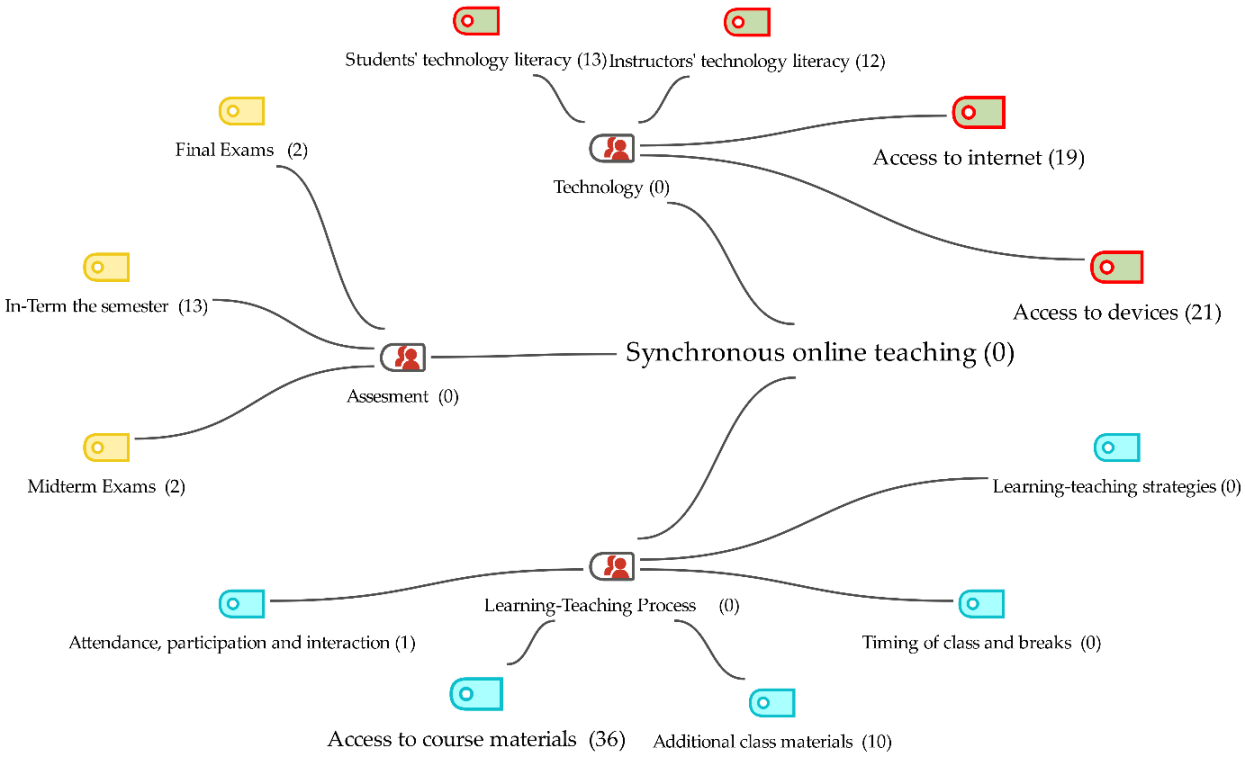
Results

This section presents the coded data obtained from the interviews in tables and figures according to the three themes determined after classification. In the interpretation of the findings, other data sources required for the case study were also considered.

The identified themes, categories, codes, and subcodes as results of the data analysis based on the questions used in the semi-structured interviews (which are the primary data sources) about students' experiences related to synchronous online instruction and the MAX Maps Code Co-occurrence Model are shown in Figure 1 below.

Figure 1.

MAX Maps Code Co-occurrence Model (Code Co-Formation) based on synchronous online teaching

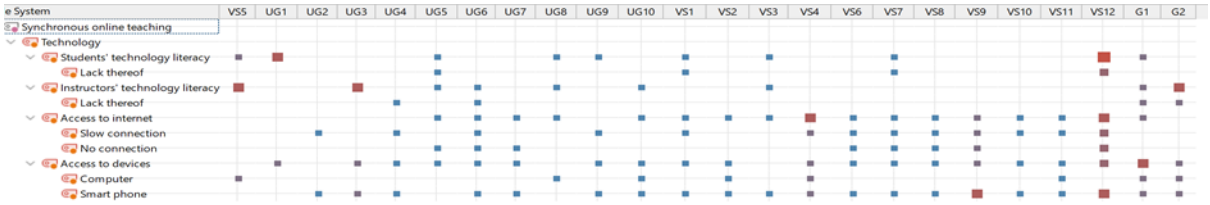


Students' Experiences with Technology

The technology theme includes four categories: "access to the device", "access to the internet", "technology use skills of student", and "technology use skills of instructor". Table 3 contains the Code Matrix Browser related to the Technology theme.

Table 2.

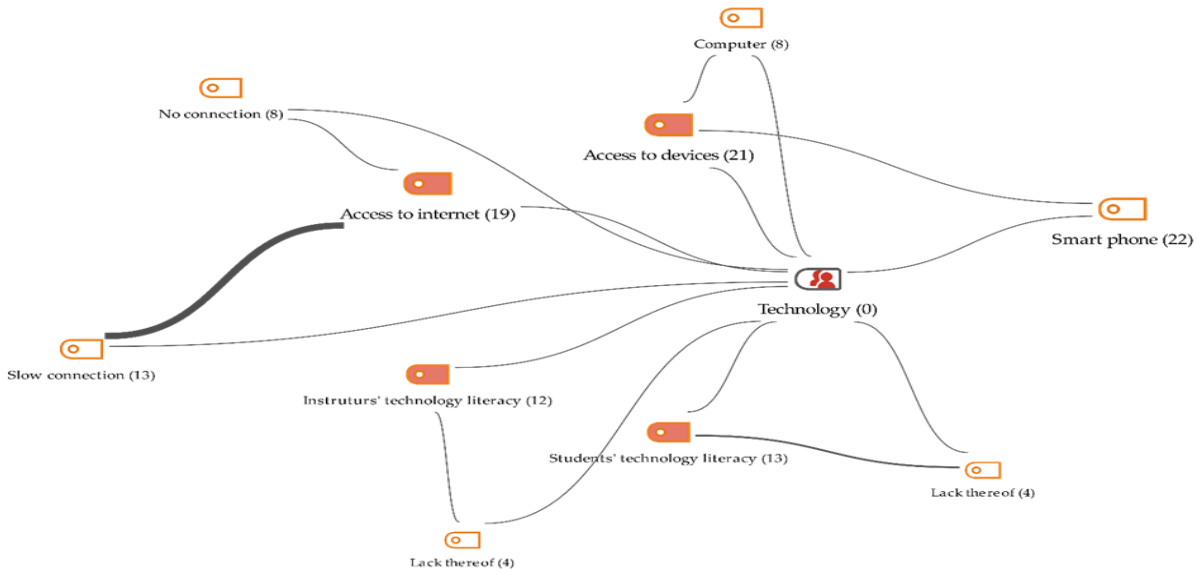
Code matrix browser image for the technology theme



When Table 3 above is examined, how students at different education levels distribute in the formation of the codes in each category is seen. Additionally, the Code Co-occurrence Model (Code Intersection) is shown in Figure 2 below.

Figure 2.

Technology Theme, Code Co-occurrence Model (Code Intersection)



Access to Devices

Research results show that students (21 students) do not have any problem accessing devices (phone, computer) they use during synchronous online teaching, and the vast majority of students attend classes and exams with their smartphones. 8 students stated that they also use their personal computers alternately with their phones. The 3 students who had short-term problems accessing devices indicated that these problems were caused by leaving their PCs in the dorms thinking they would return in a short time, having more than one student home at a time, and not having enough computers at home. Students also stated that internet cafes are closed due to Covid-19 measures, and their inability to go out because they are under the age of 20 cause problems in

accessing computers and printers. One student mentioned this situation as follows: "Technically, I had a lot of problems, I left the dorm for two weeks, I left my computer in the dorm, the internet cafes were closed, our lecture notes were loaded into the system, but I did not have a printer, I could not print them out, you know, we could not go outside because of Covid [Covid-19, precautions]" (AD12), another student expressed his experience of accessing devices as follows; "My daughter and I have classes at the same time, my daughter left her computer in the dorm [....] because she thought she would come back right away, I forcibly tried to follow the class on my phone" (AD4). After mentioning the difficulties, he experienced in accessing computers and printers, a student presented his solution proposal by saying, "This is a private university. Since distance education has to be done, they should provide us with computers" (G1).

Internet Access

The students participating in the research stated that they had problems watching classes and, in the exams, due to the slow internet (13 students) and interruptions in the internet connection (8 students). They said they experienced technology-related problems, especially in the spring semester midterm exams (although each course's exam is widespread in a five-hour time frame). The first problem is related to the general internet infrastructure in Turkey, while the second is related to the university's infrastructure. The university's technological infrastructure has been strengthened to prevent technology-related problems in online exams. On this topic, a student said, "There were a lot of problems with visas, the system froze, thank God there was an excuse exam, [...] there was no problem in the final exams" (AD12). Another said, "I watched the lecture mostly on the phone, but there were freezes due to the internet, then you get bored, and you close it" (U10). When Figure 2 is examined, the overlap between internet access and slow connection also supports this situation.

Technology Use Skills of Students

It is seen that 13 of the students participating in the research mentioned the technology use skills of the students. Still, only 4 of these students said that the technology use skills of the students were not sufficient. Talking about the technology use skills of the students, the students stated that they do not have any problems in general because they only attend the classes as spectators, and they perform actions such as on-off, listening to the lesson. However, 4 students said they had to make presentations in the lessons and that the presenters had problems uploading the presentation to the system, so they could not see the slides. A student studying at the associate degree level shared his experience on this subject with the following sentences. "My friends were going to make a presentation, they couldn't upload the slides to the system, they presented without slides, you don't want to listen to the lecture at all when there are no slides. [...] I think the school [university] should teach us how to do this" (U5).

Technology Use Skills of Instructors

12 out of 24 students who participated in the research stated that the teachers mentioned their technology use skills and generally did not experience problems with technology use. However, students stated, as follows, that some of the teachers had problems using technology and that the students realised this and did not attend the lesson "We had a very experienced teacher that we respect, but he was not very good with technology. Interaction with his lecture was low, so every student attended that teacher's face-to-face education, but only 3-5 people were in the online classes. Students who noticed this teacher's lack of technology, for example, did not open their microphones when the teacher asked a question, they did not answer; instead, they wrote that there was a problem with their microphone, but they used their microphone in other lessons. But most of our teachers were well-versed in technology, and we had no problems in their classes." (U4).

Students' Experiences on the Learning-Teaching Process

"Methods and strategies used in the learning-teaching process", "Time order of lessons and breaks", "Extra course subject", "Access to course materials", and "Continuation, participation, and interaction in classes" constitute the categories of the Learning-Teaching process theme (Table 4).

Table 4.

Code Matrix Browser View of the Learning-Teaching Process

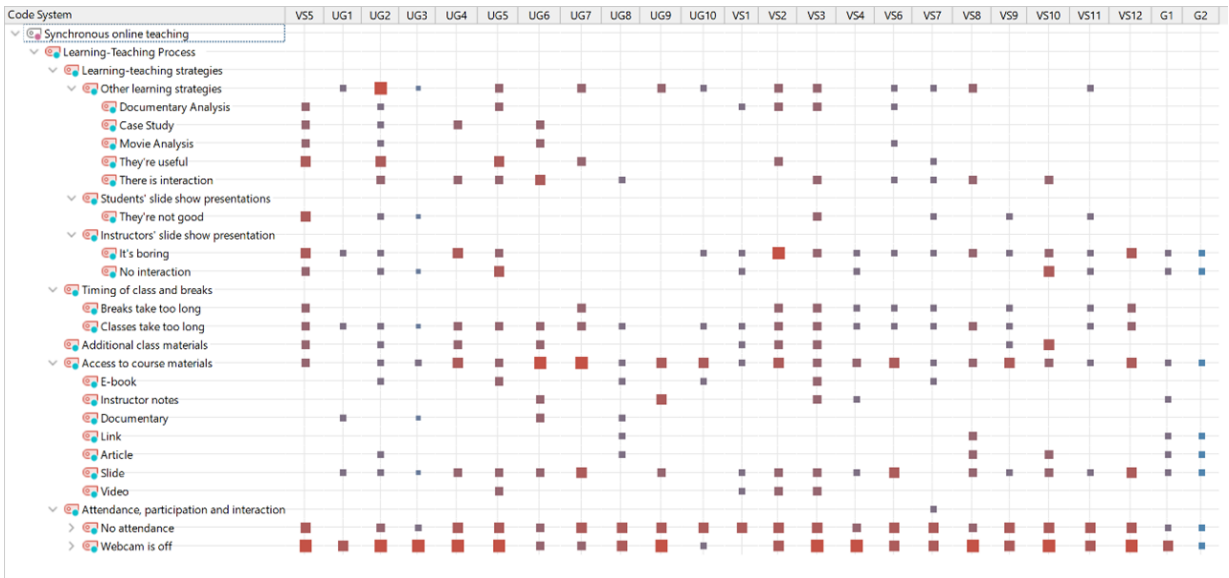
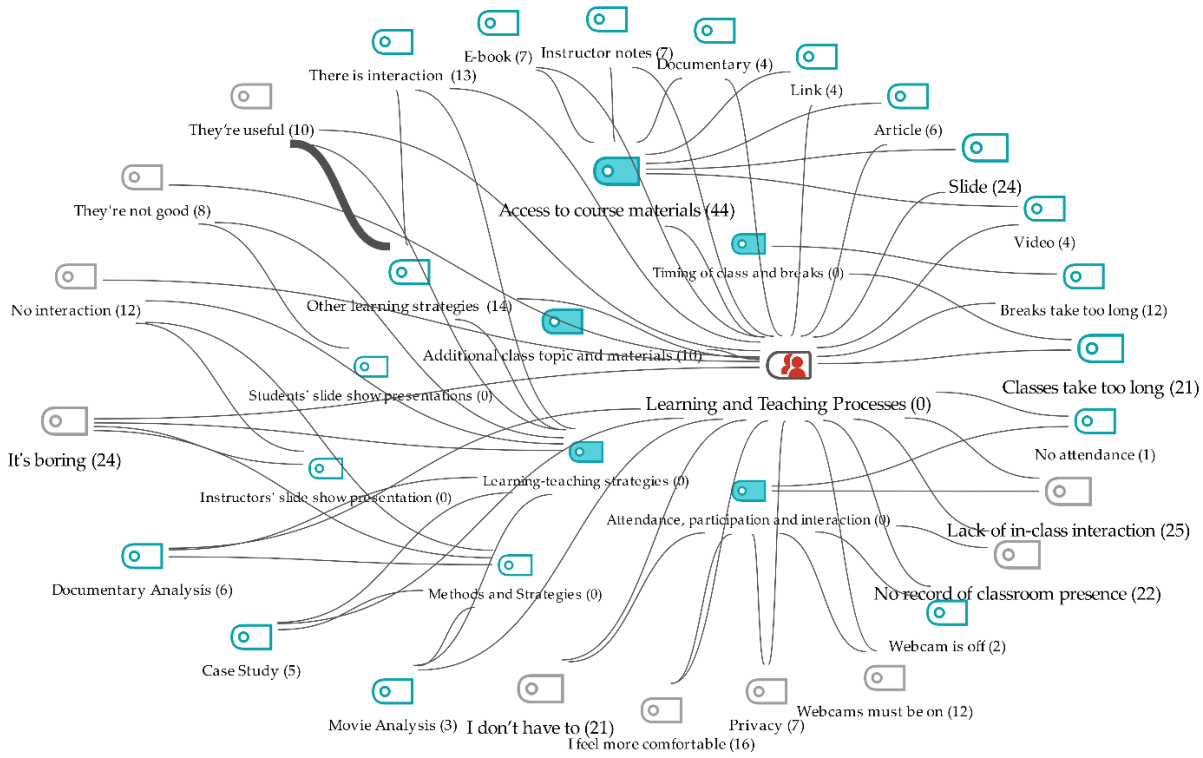


Figure 3 shows the co-occurrence model of categories, codes, and sub-codes (code intersections) that make up the "Learning-Teaching Process" theme.

Figure 3.

Learning-Teaching Process, Code Co-occurrence Model (Code Intersection)



Access to Course Materials

Students from all education levels who participated in the study stated that they generally did not encounter any problems accessing course materials. Regarding the course materials, with the letters sent to the academic units by the university administration, they requested all units on 20th March 2020 to make the necessary preparations for uploading the course materials to the system by 19th and 25th March 2020. Students at all educational levels participating in the study stated that all course materials were uploaded to the system when they started synchronous online education. A student from associate-level expressed his opinion on this subject; "We had 7 lessons this term. Everything we would use in the lessons was uploaded to the system; only one book used by the teacher wasn't owned by everyone [….] Because the book was out of print, sometimes there was a problem in that lesson. Nevertheless, we asked friends who had the book and they sent it to us, taking a picture of it, it was not a big problem." (AD6). Looking at Figure 3, it can be seen that among the types of materials in the "access to course materials" category, slides are the most used (23 students). Apart from that, students indicated that course materials they use in distance education include electronic books (7 students), instructor's notes (6 students), various articles (7 students), links to course topics (5 students), videos (4 students), or documentaries (5 students). They also stated that the books they bought for face-to-face education were also used

during the distance education process. Examples of the students' statements about the codes that make up this category are given below. "Except for one of our teachers, other teachers had slides. […] That teacher had uploaded several electronic books as course material, and there were 2–3-minute videos according to the subject of the course in each lesson." (AD2). "For example, if we are going to analyse a movie or documentary in their classes, our teachers used to tell us what that film or documentary was in the lesson a week ago. So we used to find it and watch it […] Yes, we could easily reach all of them." (U8). "Lecture notes were pre-loaded into the system […] there were various links to the materials as lecture notes, slides, and various articles." (G2).

Additional Lesson Subjects

One category that makes up the learning-teaching process theme is "additional course subjects". During the interviews with the students at the associate and undergraduate level (11 students), it was identified that course materials related to more course topics than the topics in their syllabus were uploaded to the system. For example, an undergraduate student expressed this situation with the following words, "Many subjects were given because we are at home, they think we can study because we are at home, I am under 20 years old, I cannot go out. Although the notes were uploaded to the system beforehand, there were too many course and lecture notes; there were also subjects that are not in the syllabus. Many topics were explained each week; it was like an information overload. We used to tell the teacher that he went very fast because a lot of information was given in the lessons. Still, they were saying that we are young and have a lot of time at home to work" (U7). Furthermore, an associate degree student expressed the same situation as follows, "Subjects that were not in the syllabus were also added, […] There were lecture notes. Still, I think it was too much" (AD2).

The Time Order of Lessons and Breaks

When Figure 3 is examined, it is seen that the codes that make up this category consists of the codes "long course times" and "long breaks between courses". 20 students participating in the research think that the course durations are long and 10 of these 20 students think that the course breaks are also long. Regarding courses and course breaks, associate- and undergraduate-level students also indicated that, for example, if a course is three hours long, they usually organise it into two block courses and a long break, since this is a joint decision of the class.They stated this arrangement did not pose a problem, but it does in online teaching. An undergraduate student expressed this thought as, "The duration of the course should not be exceeded. We listen to the lecture for one and a half hour. It is very boring to be in so many classes. […] It should be like in school, for example, 50-minute lessons with 10 minutes break. If the break is long, we stop the class, [...] There is a half-hour break, block classes should not exist" (U7). Another associate degree student expressed his thoughts by saying, "Maybe the length of the class could have been kept shorter, the teacher cannot rest for an hour

and a half" (AD9). In general, the students said that the long duration of the lectures, especially in the theoretical lectures, distracts them, and they get bored in the lectures.

Furthermore, the long breaks reduce their desire to return to the lecture, and they have difficulty focusing on the lecture. The students requested that the duration of the lesson should be 40-45 minutes in general, and the time between the lessons should be 10-15 minutes. An associate degree student, unlike other students, expressed his views on the course and break times with the following words, "The duration of the lesson should not be too long, when the breaks are long, we break out of the lessons. A 20-minute lesson can be arranged with a 5-minute break" (AD2).

Attendance, Participation, and Interaction in Classes

Another category of the learning-teaching process theme is "attendance, participation, and interaction in classes". When Figure 3 is examined, it is seen that the code of "not attending classes" consists of "not taking attendance" (20 students) and "lack of interaction in the classroom" (24 students). One student said, "I think not taking attendance prevented participation in the lesson. 10-15 of us listened to the lecture in a 40-person class, which decreased even more after this visa. Everyone tried to attend the teacher's lecture who said he would take attendance." (U7); another student talked about the necessity of taking attendance and thought that participation in the assessment would increase attendance; "When there is no attendance, class attendance is low. I think attendance should have been added to the grade. They did this in English [in English class], and the impact on the grade was 20%. This was effective in attendance." (AD7). All the students participating in the research associated "no classroom interaction" with the teaching methods and strategies used in the lessons, as well as the absence of the obligation to open their cameras. Students expressed their opinions on this subject as; "Most of the lessons were done with slides and lectures, there was little interaction in the lessons." (U7), "I can say that I didn't attend the theoretical classes, the teacher just talks, it's really boring." (AD2), "Friends were usually turning off the camera, there was not much interaction, 6-7 people from the 70-person class were attending the lesson, most of them were turning on their computers and laying back" (AD7), "It would be great if a rule about keeping the cameras on were set at the beginning. We usually got busy with other things when the camera wasn't on. It would be appropriate to make arrangements to not turn the cameras off. This creates a problem in classroom communication. It would be great if we could get together outside of class hours; I think this is necessary to increase communication." (AD6).

When Figure 3 is examined, one of the codes that make up the class attendance and interaction category is "not turning on the camera". This code consists of sub-codes "no obligation to open a camera" (21 students), "comfort" (17 students), "privacy" (8 students), and "cameras must be on" (12 students). The students said that they usually turn on their computers or phones during the lessons, even if attendance is not taken. From the teacher's point of view, the students who seemed to be attending the lesson

turned off their cameras and mostly engaged in other things and did not attend the lessons. A student expressed his views on this subject: "We did not turn on the cameras because there was no obligation to open the camera. After a while, the teachers did not turn it on either. The teachers said that you could turn off the camera, but this is very boring for me, we need to see everyone's faces. I think that the students must turn on the camera and microphone. We mostly got busy with other things when the camera wasn't on. No one has been opening lately. We were lying in bed listening. I think we would be ready for the lesson if there were an obligation to open the camera" (U3). In addition to the fact that the students do not have to open the camera, it is also seen that they associate turning off their cameras with the early hours of the classes with "privacy" and "comfort" reasons. An undergraduate student said, "I turned off my camera because the lessons were early in the morning, you have an image in the classroom, you are at home in the morning, you can't get up early, you have no make-up, you are in bed most of the time, you do not want to turn on the camera." (U1). While an associate degree student expressed the obstacle in attending classes in the early hours as, "You know, due to Covid [Covid-19], everyone is at home, we go to bed late, we cannot get up when the lesson is early, we try to pick up the phone in bed and listen, we do not want anyone to see us in the morning" (AD1), it is seen that they associated the reasons for turning off the camera with not being able to make personal care and preparations for the lessons held during these hours, since the lessons are early in the morning. one of the students studying at the undergraduate level expresses this situation as follows; "Students turn off their cameras for convenience. Some of our lessons were very early, some of us were watching the lesson from bed. Sometimes we were in environments that were not suitable for everyone to see" (U3). It is seen that the subcode "Cameras must be on" is repeated 12 times. An undergraduate student said, "We have 20 people in the class, I think this is an advantage. Everyone [instructors and students] needs to have their cameras on. Students may not like this requirement at first. However, I think it should still be mandatory." (L6) and says that he thinks both instructors and students must open their cameras. A student draws attention to the methods and strategies used in the learningand teaching process by saying, "I can say that I have never attended lectures. I prefer to learn the subject taught by the teacher by researching it on the Internet [...] because it is boring to listen to the teacher" (G2).

Learning-Teaching Methods and Strategies

The "learning-teaching methods and strategies" category used in the learning and teaching process consists of the codes "instructor presentations", "student presentations", and "other learning strategies" (Figure 3). The research results show that the instructors' presentations only use narration, narration with slides, and narration on the board. The experience of one student regarding the lesson in which the instructors only gave narration says, "One of our instructors only gave narrations and did not use slides, I was bored in this lesson." (U4). 23 of the students who participated in the research said that the instructors mostly gave lectures with slides,

and one of the instructors gave lectures using a blackboard. One of the students studying at the undergraduate level stated this situation; "Most of our teachers taught the lesson with slides. Some of our teachers projected their own notes on the screen, and one teacher had a blackboard and a swivel chair in his own house; he was spinning and writing, then he was talking, the lesson required writing on the board. Some instructors reflected from pdfs and some who only narrated the lesson" (U6). Among the methods and strategies used in the learning-teaching process, it is seen that the "presentation with slide" strategy is mostly used. Subcodes that make up the slide presentation code from the presentations made by the instructors, it can be seen that "boring" is repeated 23 times and the "no interaction" subcode is repeated 12 times (Figure 3). Students also draw attention to the format and quality of the instructors' presentations and the lack of interaction strategies used during the presentation; "Some teachers only present the slide, there is no interaction in the classroom, we only see the slide, the students are not asked questions." (U1), "Sometimes there are texts and many slides on the slides, we cannot understand what is important or unimportant, the teacher just tells. Some teachers explain with few slides and more with examples. There is not much writing on the slides of these teachers, we understand better, we do not get bored, some teachers are interactive while teaching the lesson, they ask questions, this way we both attend the lesson and learn better." (AD4). The sub-codes under the "other learning strategies" code used by the instructors are "film analysis" (5 students), documentary analysis (8 students), and "case studies" (5 students). For these strategies used in learning and teaching, students used the expressions "there is interaction" (13 students) and "we learn without getting bored" (11 students). Students express their interaction and learning experiences in these lessons with the following sentences: "For example, if we are going to analyse a movie or documentary in their classes, our teachers used to tell us what that film or documentary was in the lesson a week ago. So we used to find it and watch it. These lessons were very productive, I think almost everyone attended them." (U2), "In the lessons where we did case studies, the interaction was very good, we learned very well, they either sent the case scenario beforehand or presented it in the lesson, we worked on it" (U6), he said that these strategies have a positive effect on class participation and interaction.Some of the students who participated in the research said that various computer games could make the lessons more fun and efficient. An undergraduate student made this suggestion saying, "If games are prepared for teaching lessons, we love games; there are some applications to teach certain things. For example, a computer game was used in a course I learned English. It was a lot of fun, and you learn while having fun, you don't even understand how you learn, I think universities should use these kinds of games as well." (U5), and an associate degree student stated that "Learning through games can be very easy. Still, I don't know how the school [university] can do this" (AD11).

It is seen that 8 of the students who participated in the research defined the slide presentations made by the students as "not sufficient" (Figure 3). They stated that the students generally could not prepare slides, that they were usually downloaded from the internet, and that they only used the slide by changing the name of the person who

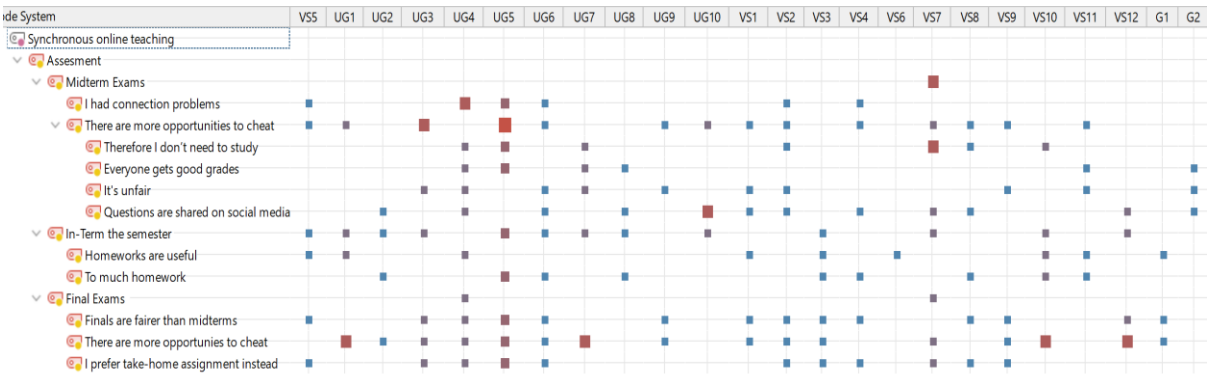
prepared it. Additionally, they stated that students mostly read this presentation, which they did not prepare themselves, and that they cannot explain the concepts on the slide. Hence, the student presentations were not instructive for the presenter or the listeners and were boring. An associate degree student explained his experience with the student presentations saying, "Generally, we made presentations in most courses. The presentations were in the form of group work; a student from the group took charge, copying and pasting; he did not even know the meaning of foreign words in the thing he copied and pasted, we could not learn anything. The presentations are not of high quality; we prepare a presentation in one hour and come to the lesson. I do not understand anything." (AD11); another associate degree student said, "Students' presentations are very inefficient. The slides are all text, and the student reads. It's so boring, and we don't want to listen to it." (AD4); and an undergraduate student said, "Student presentations are not very instructive, and some cannot even load the slide. Most of them read the slide instead of presenting it" (U2).

Students' Experiences on Assessment

The assessment theme is formed of the categories "Interterm evaluations", "Midterm exams", "Final exams", and "Connection problem". Table 5 below shows the participating students' contributions to the formation of each code that constitute the assessment theme.

Table 5.

Code Matrix Browser Image for Assessment Theme

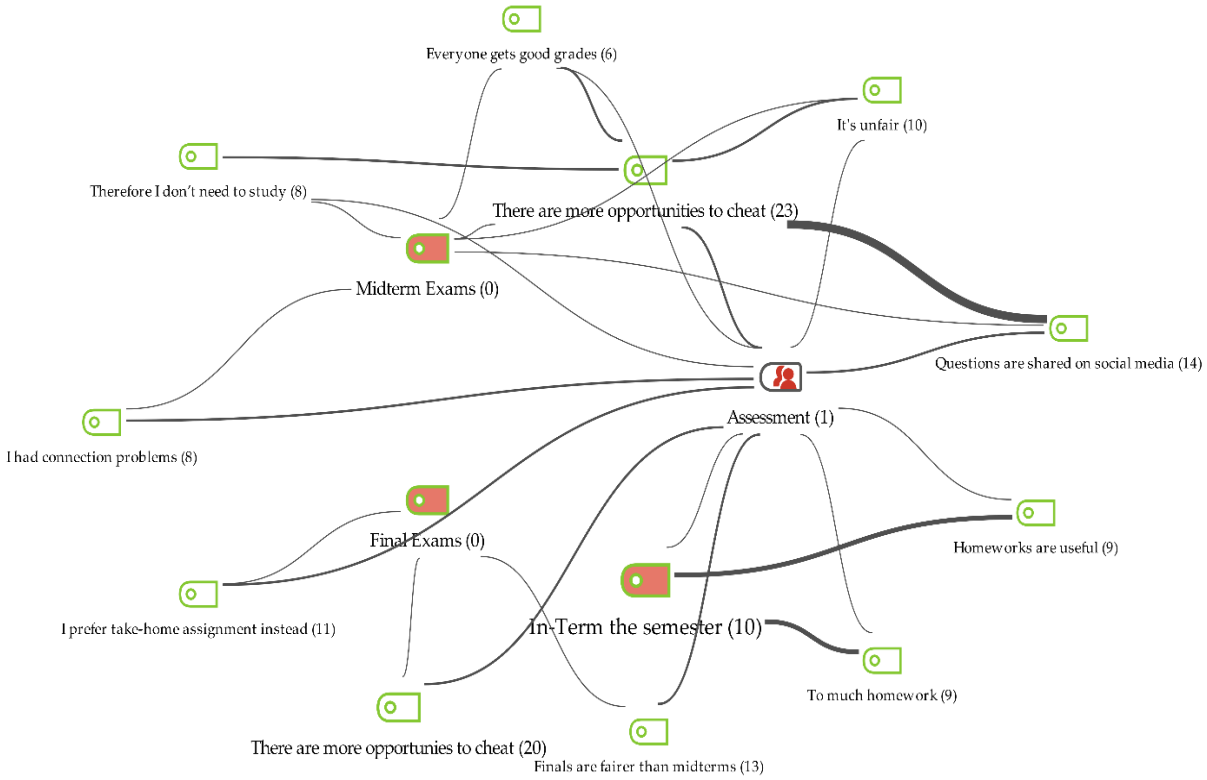


The mid-term evaluations category includes the codes "homework instructive" and "much homework given". The visa exams category includes "connection problem" and "cheating" codes, and the cheating code consists of the sub-codes "I don't need to study", "everyone gets high marks", "not fair", and "questions are shared on social media". The final exams category codes consist of "fairer than visas", "cheating", and "homework preference for the exam". In Figure 5 below, there is a co-occurrence model

(code intersection) that makes up the "Assessment" theme and shows the relationship between categories, codes, and subcodes.

Figure 5.

Assessment, Code Co-occurrence Model (Code Intersection)



Evaluations During the Semester

Evaluations during the semester: It is seen that the "homeworks are useful" code, which constitutes this category, is repeated 8 times (Figure 4). The students who participated in the research stated that some of their courses were given homework by the instructors during the semester. These assignments were very effective in their learning. Still, they were generally not given feedback on their homework, and they did not know if they got their grades or not. An associate degree student, who had experience with midterm evaluations, said, "In one of our lessons, our teacher gave homework. But we are not given feedback on our assignments. Also, we can't understand which sections we got graded for or not […] no rating scale was given to us." (AD3). It is seen that the code "much homework given", which is another code, is repeated 8 times. One undergraduate student explained this situation by saying, "Continuous homework, homework. We are stuck when there is an expectation every week. Our motivation has plummeted." (U2).

Visa exams

The "connection problem" code, which constitutes the visa exam category, is related to the technology theme. Under the technology theme, the measures taken by the university are explained. The university administration solved the problem in the learning-teaching process dimension of the subject. A letter was sent to the academic units on 30th April 2020 to solve the problem experienced in the midterm exams – e.g., internet freezes during the exam or exam stress due to internet problem - and students who wanted to retake the visa exams on 3-4 May 2020 were granted. Students stated that the methods used in midterm exams are mostly online multiple-choice tests, a small amount of homework, and very few online oral exams. Especially after expressing that student were "cheating" (23 students) in the exams, they clarified this with the subcode "they are shared on social media" (14 students). In Figure 4, the frequency between this code and subcode is easily seen.

Additionally, students reveal the problems they have experienced in exams in general by using the expressions "it is not fair" (11 students), "everyone gets high grades" (4 students), and "I don't need to study" (8 students). A student states this situation, saying, "Exams are really problematic. 5 hours were given for the midterm exam, it is not fair, the spread of the exams over time causes the first takers to share questions, the questions are circulating. It does not distinguish between those who know and those who do not know; everyone gets high marks. Questions are shared on Instagram. During the exam, they are meeting on WhatsApp." (U4).

Furthermore, (U7) says, "Only one of our lessons was tested as homework. I learned a lot in classes where homework was given as an exam. I was not studying for the test exam; my notes were open in front of me, I was looking and marking." Another student states, "Test exams are unfair, there is a lot of cooperation. It would be fairer if there were live oral exams." (AD11).

After the general evaluation of the midterm exam results by the university administration and the general feedback received from the students, it was realised that the exams spread over five hours made it easier for the students to cheat during the exams, and new regulations were made regarding the exams. Teachers were asked to arrange a new exam in the final exams, to diversify the exams, to make the students take the exams one hour after the other by dividing them into groups for the same course if there is a test exam, and to differentiate the questions asked to the groups.

Graduation (final) exams

Final exams category was again made up of the codes "cheating" (20 students), "fairer than visas" (11 students), and "I prefer homework" (10 students). The University Administration shared the article of the Council for Higher Education dated 27.05.2020 on "Basic principles of examinations that can be conducted in the digital environment"

on May 29, 2010, and all relevant deans and directorates were asked to diversify the application of examinations based on the experience related to visa examinations of all academic units. In the test exams to be held, it was requested that groups be formed, a different question pool should be created for each group, and the exams of the groups should be done one after the other. The students participating in the research state that the final exams are "a little fairer" compared to the midterm exams, but exam security is still not adequately provided. One student says about this situation, "In the final exams it was a little fairer, there were two groups, the questions were different, two groups took the exam 5 minutes apart, but still those who took the exam in the second group could at least get information about the structure of the questions from the first group, I think it would be fairer if the students took the exam at the same time." (AD12) and another said, "There were teachers who gave homework in the final exam, there were more test exams. Two groups were made, but those who took the exam first shared their screens with those who took the exam in the second group. [...] There are some applications for games that we use for screen sharing" (U3). A master's level student indicated that others were taking the exams instead of the student and suggested, "For online exams, the necessary technical measures should be taken to verify that the students themselves have taken the exam. [...] Students can be asked for their IP addresses, or a model can be developed in which only the student can access the exam system with the off-campus access model." (G1). In the evaluations, it is seen that the students are generally in favour of diversifying the exams, and they talk about the lack of methods to ensure exam security. One student expressed this by saying, "Other methods can be used instead of tests in exams. For example, parts from some games can be used in practice exams. I learned sewing from a game. Examinations can also be done orally" (AD3). It is seen that 10 students expressed the "I prefer homework" code regarding the exams. An associate degree student described this situation as, "Exams; test exams are not very convenient, homework is more instructive. Tests and assignments can be used together in assessment. We study all subjects for test exams, we focus on only one subject in homework, but there is a lot of help in test exams, so I don't think it's a very fair assessment. Those who take the exam first share the questions with others." (AD9). It is seen that the "homeworks are useful" code, which constitutes this category, is repeated 8 times (Figure 4). The students who participated in the research stated that some of their courses were given homework by the instructors during the semester. These assignments were very effective in their learning. Still, they were generally not given feedback on their homework, and they did not know if they got their grades or not. An associate degree student, who had experience with midterm evaluations, said, "In one of our lessons, our teacher gave homework. But we are not given feedback on our assignments. Also, we can't understand which sections we got graded for or not [...] no rating scale was given to us." (AD3). It is seen that the code "many homework given", which is another code, is repeated 8 times. One undergraduate student explained this situation by saying, "Continuous homework, homework. We are stuck when there is an expectation every week. Our motivation has plummeted." (U2).

Conclusion and Discussion

In this study, the experiences of university students regarding synchronous online teaching at the beginning of the Covid 19 epidemic process were investigated. The online teaching process's experience and the student's expectations and suggestions are discussed under three themes: technology and learning-teaching process and evaluation.

Research findings show that students have some problems with technology, especially in accessing computers, and students mostly watch the lessons via smartphones. In the report titled "Mardin Artuklu University (MAU) during the Covid 19 Process" published in June 2020, which contains the results of the research conducted by Mardin Artuklu University, it is stated that students generally do not have devices to follow classes, that this situation is aggravated in rural areas, and that students mostly try to follow classes with their cell phones. According to the survey conducted by Istanbul Middle East Technical University Alumni Association to evaluate the distance education of METU students who are scholarship holders, students perceived the lack of a computer/mobile phone with 28% higher capacity and strong internet access with 44% (ODTUMİST, 2020).According to the MAU report, there is a decrease in students' internet access towards the countryside. Furthermore, it shows that students mostly disliked the aspect of a weak network connection during the Covid-19 process (Adnan &Anwar, 2020; Al-Balas et al., 2020; Farooq et al., 2020; Hasan & Khan, 2020; Wan Hassan et al. 2020). This research shows that most students have to attend classes with their smartphones and give up watching the lessons because the process is interrupted due to the slow internet.

Technology use skills of students and instructors are among the categories that make up the technology theme. These technical skills include presenting topics via screen sharing, using synchronous chat during presentations, etc. The research findings show that students generally do not experience problems due to the lack of teaching practices requiring their devices' active use. Still, during teaching practices in which students are active, for example, when they make presentations, some students experience problems with technology use from time to time. Barnard-Ashton, Rothberg, and McInerney (2017) state that online teaching can be very difficult for students with limited computer literacy skills and difficulties with internet connection. Students state that although rarely, teachers, especially those in the older age group, experience problems with technology use. The findings of studies on online teaching during the epidemic also overlap with the findings of this study and show that teachers lack technical skills (Coman;et.al. 2020; Aboagye, Yawson, Appiah, 2020). Many teachers and students are most likely encounter synchronous online teaching for the first time or use specific learning platforms or software for the first time in this process. Research shows that familiarity with the learning platform can be an indicator of student success. Students who receive some form of orientation or introduction to their virtual classrooms perform better on assessments than students who do not (McKenna et al., 2018). Some researchers argue

that it is the responsibility of the relevant institution to provide educators with the necessary technological and educational support to develop a quality online course and understand the differences between an online and a traditional classroom (Downing & Dyment, 2013). Given the predictions of international health organizations about the course of the epidemic, it is necessary to make the necessary infrastructure investments and regulations related to technology, so that the state and all educational institutions can carry out their training without problems. In addition, it is thought that determining the learning platforms to be used by the institutions in advance and providing trainings to students and educators to improve their use of these platforms will increase the performance of students and educators.

Research findings show that students are reluctant to attend and continue to attend classes. In this research, attendance means that students and the instructor are at the device simultaneously during the learning-teaching process. The results obtained from the interviews show that the students were willing to attend the classes in the first days of the synchronous online education but gradually lost this desire for various reasons. Students state one of these reasons as "not taking attendance". Additionally, the students stated that they attend more in some courses where attendance is taken and has a 20% effect on the course evaluation. Therefore, they think that attendance should be included in the assessment and recommend making arrangements in this direction. During face-to-face teaching at the university and college level, poor student engagement has been the subject of research in many countries for many years (Moore, 2004; Newman-Ford et al., 2008). The issue of absenteeism has led researchers to evaluate its possible consequences, especially its impact on student performance (Newman-Ford, 2008). The results of a study conducted by Nieuwoudt (2020) also reveal a significant positive relationship between students' final grades and the time spent in online classes, and these results are in line with the results of research conducted other researchers (Nieuwoudt, 2018).

Students state that another problem related to attendance is that cameras are not required to be turned on and suggest that they must be turned on. Students generally said that they turn on their devices during the lessons, even if attendance is not taken. From the teacher's point of view, the students who seemed to be attending the lesson turned off their cameras and mostly engaged in other things and did not attend the lessons. The reasons why students turn off their cameras are usually the changes in their daily routine (because everyone is at home due to the Covid 19 epidemic and therefore go to bed late and get up late), the fact that they are not able to take care of their personal affairs and make preparations to join the online environment when they get up late, that they watch classes, especially morning lectures, lying in bed, and that they are in environments that cannot be shared with everyone (privacy). Norman (2017) notes that students do not like to leave their webcams on all the time, especially when they are participating in synchronous online classes from home in their pyjamas. He explains that getting students to turn on their cameras in anticipation of a lesson (and explaining the reasons why they do not) creates a sense of connection and

accountability.Remarkably, the students frequently reference not taking attendance and mention the necessity of making it compulsory for attendance, participation in the lesson, and opening the camera. This situation reveals the need to direct attention to a problem related to students' self-regulation skills. The term self-regulation refers to the regulation of one's thinking and actions (Zimmerman & Schunk, 2011). Students with self-regulation skills use metacognitive, motivational, and behavioural processes to achieve a learning and performance goal and assume the greatest responsibility for their learning outcomes (Zimmerman, 1990; Zimmerman, 2011). Researchers have repeatedly demonstrated the enhancing effects of self-regulation behaviours on students' academic performance in regular classrooms (Barnard, Lan, To, Paton, & Lai, 2009). As the online learning environment is characterised by autonomy, self-regulation becomes a critical factor for success in online learning. In higher education, it is felt that it would be more useful to work on improving self-regulation skills rather than forcing adult learners to open their cameras and participate in class. According to Zimmerman (2008), self-regulated learning refers to the process a student is involved in when they take responsibility for their learning and applies themselves to academic success. Self-regulated learning takes place in three steps; 1) Planning: Student planning their task, setting goals, outlining strategies to overcome the task, and/or creating a schedule for the task; 2) Monitoring: Implementing the student's plans and closely following their performance and experience with the methods they choose; 3) Reflection: Finally after the task is completed and the results are obtained, the student reflects on how well they did and why they did it in that way. When students lack the will and the ability to succeed academically, educators need instructional strategies that can provide insight and guide their self-regulated learning processes (Zimmerman, 2008). Self-regulated learning goals include making these strategies visible first and eventually automated for the adult learner.

Another important issue that students expressed about not attending classes, turning off their cameras, and therefore not attending the lesson, is the absence of any interaction in the classroom. The distance education and online learning literature include many studies on the importance of interaction (Abrami et al., 2011). The results obtained from the student satisfaction surveys about synchronous online teaching also show that one of the student complaints is the lack of interaction (Brown et al. 2016). In this process, the findings of studies on online teaching also emphasise the lack of interaction in the classroom (Farooq et al. 2020; Coman et al. 2020) and are in line with the findings of this research.

Although synchronous online teaching starts with the opening of devices and cameras, attendance and participation are different concepts. In this study, attendance means that the student enters the learning platform, and participation means that the student takes an active part in the learning-teaching process. Astin (1999) defines involvement as "the amount of physical and psychological energy a student dedicates to academic experience" (p. 518-529). Fredricks, Blumenfeld, and Paris (2004) defined three types of student engagement based on the literature: cognitive, emotional, and behavioural.

Behavioural participation is based on the idea of participation; It includes participation in academic, social, or extracurricular activities and is considered crucial to achieving positive academic outcomes. Emotional involvement encompasses positive and negative reactions to teachers, classmates, academics, and schools and is assumed to form bonds with an institution and influence the willingness to do the job. Finally, cognitive engagement is based on the idea of investment; It involves thoughtfulness and a willingness to make an effort to understand complex ideas and master difficult skills. Research shows that enabling students to collaborate and interact in the learning process increases student participation (Umbach & Wawrzynski, 2005).

According to Moore (1989), in any educational context, interaction falls into one of three categories: learner-instructor, learner-student, or learner-content. Student-instructor interaction refers to the dialogue between students and instructors and their participation in the learning and teaching process. Students and instructors; using features such as audio, video, text chat, interactive whiteboard, application sharing, instant voting, statements, and breakout rooms (Martin, Parker, & Deale, 2012). Additionally, instructors and students have the tools to deliver learning content in different formats and implement collaborative and individual activities. In this type of interaction, the teacher has a significant moderator role, guiding the learning process and supporting group activities and discussions. (Martin & Parker, 2014). Participating students stated that the learning-teaching methods and strategies used in the lessons were narration, slide-accompanied explanation, and some interaction on the board. They defined this method as boring and stated that they left the lesson after a while and did not want to attend the next lessons. Because such methods contain a one-sided information flow, they are generally methods that minimise in-class interaction.

Student-content interaction is the process of interacting intellectually with content that changes the understanding, perspective, and cognitive structures of a student's mind (Moore, 1989). Content interactions engage students with content, including reading, watching, listening, and doing activities. Besides course readings and assignments, discussions are also where many student-content interactions occur (Truhlar & Walter, 2018). Students stated that the course materials were uploaded to the system before the lesson; the instructors mostly used these materials in PowerPoint presentations. They stated that the slides consisted of a small number of the instructors' lecture notes, electronic books, and fewer articles, films, videos, documentaries, and links related to the subject. The research results show that while the students interact with the content asynchronously, they do not interact with the content in the classroom in general, especially in the lectures where the instructors present and there is no other interaction other than listening. Although few, the students stated that they interacted with both the instructor and the content in the courses that included film, video, and documentary analysis and case studies, they described these courses as productive and stated that the interaction was high and also the attendance and participation in these courses was high.

However, students did not mention any student-student interaction during the synchronous lessons. Student-student interaction refers to the dialogue and exchange between different participants in an online course (Yang, 2017). Kearsley and Shneiderman (1998) state that interaction between participants is the most important requirement for successful online education. In a classroom setting, this interaction occurs naturally as students listen to each other's comments, ask each other questions, and establish relationships through frequent communication. Research shows that online courses with high levels of student-student interactions positively affect learning. In one study, students with high levels of interaction with other students reported high levels of satisfaction and learning (Swan, 2002). Research shows that encouraging the active participation of students by providing more interaction opportunities is an effective approach that promotes success in online lessons (Nieuwoudt, 2020). Interaction in online classes ensures that students become active and collaborative learners (Yang, 2017). Additionally, student-student interaction is vital for building community in an online environment that supports productive and rewarding learning and helps students develop their problem-solving and critical thinking skills (Kolloff, 2011). These interactions affect how students perceive their learning and general education experiences and the perceived quality of teaching and learning in an online course (Bonk & Cunningham 1998).

Researchers argue that learning designs that enable interactions and online learner participation are necessary to improve learning (Bower, 2016; Hrastinski, 2009). With student-centred approaches, increasing student participation can develop a sense of community by providing opportunities to share ideas, receive useful feedback, develop critical thinking, and engage in tasks that include co-structuring (Bower, 2016; Park & Bonk, 2007; Brown, Schroeder, & Eaton, 2016; Young & Bruce, 2011). Weimer (2013) suggests five areas to change to use the student-centred approach: 1) Teachers and students should share a balance of power regarding activities, decision-making, and assigned roles; 2) The function of the content is to contribute to the learning process and the acquisition of skills rather than simply memorising concepts; 3) The role of the educator is shifting from being the sole source of information to being a guide, designer, and facilitator of learning; 4) There is an assumption that responsibility for learning lies with students who are independent and self-motivated; and 5) The purpose of assessment is not only to establish grades, but also to be a tool for students to learn, practice skills, and receive feedback.

The findings of the study show that learning environments do not provide opportunities for deep and meaningful learning and teacher-centered approaches are used predominantly. In studies conducted to understand learning experiences, two different levels of information processing and understanding are defined superficial and deep processing (Garrison, 2016). Superficial processing is when the student understands memorisation or rote learning and has a corresponding learning strategy. In deep processing, the learning intention is to understand and organize information's importance and integrate new knowledge with existing knowledge. The learning

environment greatly influences these approaches to learning. Students adapt to the expectations and characteristics of the learning environment. Because teaching high-level concepts inevitably involves a significant amount of discourse (Garrison, 2016), research in face-to-face and mediated learning environments confirms the benefits of thinking and collaborating to support deep and meaningful learning experiences (Garrison, 2016; Garrison & Archer, 2008; Johnson and Johnson, 2009).In this context, the "Community of Inquiry Model" was developed by Garrison, Anderson, and Archer (2000), whose primary function is to manage and monitor the dynamic of thinking together and learning together. This model shows that a deep and meaningful teaching experience can be achieved by developing three interdependent elements: social presence, cognitive presence, and teaching presence. These create a sense of presence or identity through purposeful communication and distributed teaching and learning responsibilities.

Social presence is defined as the ability of participants to identify with the group or the lesson, communicate consciously in an environment of trust, and gradually develop personal and affective relationships by reflecting their personalities (Garrison, 2009). Social presence can be created through effective communications during large group discussions, small group discussions, or individual teacher-student interactions (Akyol, Vaughan, & Garrison, 2011). Cognitive presence is defined as the "discovery, construction, resolution, and validation of meaning through collaboration and reflection in inquiry learning communities" (Garrison, 2007, p. 65). Structured collaboration is essential to achieve this. From this, students benefit from deliberate and meaningful interactions designed for specific learning objectives. For example, an instructor can use discussion rooms to move students into smaller groups to encourage collaboration. Creating expectations about what to do in the discussion room is just as crucial during teacher-led interactive activities as assigning a specific time for a particular task (Brown, Schroeder, & Eaton, 2016).

Teaching is the perceived role of the teacher in designing, facilitating, and presenting the lesson (Akyol & Garrison, 2008). Teaching presence is expressed as "designing, facilitating, and directing cognitive and social processes to realise personally meaningful and educationally useful learning outcomes" (Anderson, Rourke, Garrison, & Archer, 2001, p. 5) and is seen as a fundamental element of developing a sense of community (Garrison, 2007). Teaching presence begins for a teacher before the lesson begins. It first acts as the instructional designer, planning the lesson, preparing it for practice, and continues throughout the lesson as the instructor facilitates the discourse and teaches directly when necessary (Garrison, & Archer, 2001). There is broad agreement that teaching presence is an important determinant of perceived learning and sense of community (Akyol, Vaughan, & Garrison, 2011). Effective online pedagogy emphasises student-centred learning and uses active learning activities (O'Neil, Fisher, & Rietschel, 2019). According to Carr-Chellman and Duchastel (2000), the essence of an online course is the organisation of learning activities that enable

students to reach certain learning outcomes. In this sense, it is thought that the "Community of Inquiry Model" can provide a general perspective.

One interesting finding of this study is that the teachers added new subjects to their syllabus after the transition to online teaching, apart from the subjects included in the syllabus arranged following the face-to-face teaching period. In the literature, no research findings were found on this subject. In this process, the expected course time from the teachers is as the course times in face-to-face teaching. Teachers may have had to choose such a path, as the duration of the lessons they usually carry out through slide presentations was shorter than planned. Another important finding is related to the duration of the lessons and the intervals between the lessons. Students think that the course duration and course breaks are long. They state that, as a class, they decided to divide the three-hour lesson session into two (as is usually the case in face-to-face education), but that each session lasting one and a half hour is boring. Additionally, the students state that the breaks between lessons, which are 15-20 minutes, are long, they get distracted from the subject, and do not want to go back to the lesson. Bates (2020) states that presentations should not exceed 20 minutes and that teachers should avoid long-winded presentations. Also, presentations should cover the main topics or key points in an extended discussion and allow students to expand on the details through further reading or video examples on the Internet.According to attention span and cognitive overload studies, Mayer (2009) draws attention to the importance of breaking up online lessons into small chunks, giving students opportunities to stop, think, answer questions, and continue when they are ready. This requires the lesson time to be divided into independent parts, where students can do different activities immediately after the presentation (Bates, 2020). When the literature is examined, it is seen that online course, which include the strategies used to enable students to attend the course, vary between 90-120 minutes on average (Lomax & Massachi, 2020). In general, in face-to-face teaching in Turkey, the duration of lessons is 50 minutes, and the breaks between lessons are 10 minutes. Since the pedagogy of face-to-face teaching and especially student-centred online teaching differ, it seems appropriate to make a new arrangement in the timing of lessons in online teaching processes.

Student-centred learning is often characterised by small group work. Still, a mix of diverse methods involving student and teacher-centred approaches to learning and teaching is common and successful in providing high-quality education (Sursock & Smidt, 2010). However, one of the most important issues that should not be overlooked is the number of students in the classes. Although there is no agreed number on this issue, it is stated that the number of students in the class can vary between 12-30. Since student-centred approaches mostly involve group work, perhaps it would be appropriate to express this number enough to enable an instructor to participate in group work actively and productively. In this context, universities need to reconsider the number of students in the classrooms and rearrange the number of students according to this approach.

Research findings show that student assessments are applied in three ways: midterm assignments, midterm exams, and final exams. It is revealed that assessments are carried out through assignments during the semester, but the instructors do not use assessment scales and the students are not given feedback. Giving the evaluation scale for assignments and giving feedback on the assignments can increase the student's performance. Dreher et al. (2011) found that giving meaningful feedback to learners about their progress, strengths, and aspects that require improvement empowers them to take the necessary measures to improve their learning performance. The assessment method used in midterm and final exams are mostly tests, small amounts of homework, and oral exams. The students stated that the exams given by homework are more instructive, and the evaluation is fairer. In multiple-choice tests, students stated that they could cheat during the exams by sharing screens, sharing questions on social media, and making meetings through social media during the exam. According to OECD (Organization for Economic Co-operation and Development) (2020), student academic fraud, which means cheating and plagiarism in practice, is one of the most frequently discussed challenges regarding online exams in higher education today. Students who take exams from home or elsewhere can access unauthorised resources and materials, communicate with outsiders, and even ask someone else to take exams for them. Many universities in the United States have reported widespread cheating in online exams held in the spring of 2020. The prevalence of this problem was raised to the media agenda, through Washington Post (Newton, 2020) and Inside Higher Ed (Lederman 2020). The results of a study conducted in Australia in 2020 and published in 2021 also show that cheating occurs in all types of exams in online environments, with or without supervision, just as it does in face-to-face teaching (Reedy et.al. 2021). The results of this research overlap with other research or articles in the media and reveal that the problem is widespread worldwide. When cheating in exams is considered as a result, it is necessary to investigate the reasons that push students to cheat, and another and more importantly, the issue of academic honesty should be placed on the agenda of educational institutions.

Assessments give students an idea of their progress in a course, identify individual strengths and weaknesses, and ultimately serve to measure whether students are meeting the course's learning objectives. The research results show that the Summative Assessment approach is generally used following the teaching approach. Outcome evaluation is an evaluation method generally applied at the end of the teaching and provides judgment about whether the student is successful or unsuccessful. In such assessments, multiple-choice questions in general and the systemic weaknesses in online systems regarding exam security make it easier for students to cheat. The findings of this study also confirm this. Academic fraud can reduce the credibility of higher education degrees and diplomas (OECD, 2020). Therefore, higher education institutions need to develop exam strategies that limit the risk of students cheating and plagiarising when taking exams. These strategies are discussed under two headings. First, technological tools are used to reduce students' academic fraud risks. One of the methods used is "online monitoring". Online monitoring relies on different

technological tools that allow test-takers to be authenticated at the beginning of the test, locking student computers to prevent access to other applications, and recording students using webcams and microphones throughout the test. These automated technologies generate alerts when they detect unusual or suspicious events, such as when a student disappears from the screen or engages in a conversation (OECD, 2020). However, according to Lieberman (2018), students take the exams under the supervision of an online supervisor can negatively affect students' success in the exam. The other technique is redesign of exams. These include oral exams instead of written exams (although this requires a significant time investment), flexibility in exams (offering oral and written exam options), diversifying exam questions, shortening exam duration, and conducting open-book written exams (OECD, 2020).

Evaluation gives students an idea of their progress in a course, identifies individual strengths and weaknesses, and ultimately serves as a measure of whether students are meeting the course's learning objectives. Formative assessment is preferred for evaluating students in learning environments where student-centred pedagogies are used. Wiemer (2002) states that both can be used in student-centred assessments. The main concern of online student-centred teaching is learning. Therefore, the purpose of student-centred classroom assessment is not only to create grades but, more importantly, to encourage learning (Weimer, 2002).

For this reason, giving feedback to both individual and group work of students will correct wrong learning and improve their learning. This means that the processes used in the evaluation will also change. Therefore, it is important to ensure that students are aware of the course objectives and learning objectives. Weimer (2002) also states that students should be taught to evaluate their work and the work of their peers by constructively asking critical questions. Another type of assessment used in online environments is authentic assessment.

On the other hand, authentic assessment helps students develop their skills, requires the practice of creative thinking and problem solving, and provides multiple ways to demonstrate knowledge. Most authentic assessments involve complex questions and tasks with no simple solutions. Students must research, brainstorm, practice, draft, and refine solutions to complete the assignment. Wiggins (1998) stated that the basic criteria for an assessment to be authentic are 1) being realistic, 2) requiring reasoning and innovation, 3) asking the student to do the topic, 4) copying or simulating the contexts in which the topic is tested in the workplace and personal life, 5) assess the student's efficient and effective use of the repertoire of knowledge and skills to negotiate a complex task, and 6) rehearse, practice, consult resources, and receive feedback on performances and products, and provide appropriate opportunities for improvement. For this, defining the learning outcomes clearly, defining the task related to the outcomes, defining the assessment criteria, preparing an assessment scale (rubric), and passing assessment techniques from tests to projects, assignments, and case studies is

necessary. Weimer (2002) also states that student-centred assessment strategies can increase self-regulation skills and reduce test anxiety and cheating tendencies.

The Covid-19 epidemic has emerged recently. It has left teachers of all ages and backgrounds to prepare their courses from home and all the practical and technical difficulties they entail without proper technical support (Hodges et al. 2020). Online education has been studied for decades, including online teaching and learning. These studies reveal the necessity of careful instructional design and planning using a systematic model for effective online learning design and development (Branch & Dousay, 2015). Institutions often hire instructors to design online courses (Ching, Hsu, & Baldwin, 2018). However, research shows that teachers do not have the pedagogical content knowledge (PCK) necessary to design and implement meaningful online learning experiences (Ching, Hsu, & Baldwin, 2018). The findings of this study also confirm this information. In this context, it is necessary to develop pedagogical content knowledge and technological-pedagogical content knowledge that will combine this knowledge with technology and the mastery of the trainers in technical skills. It would be appropriate to develop these skills through training for trainers and universities to employ instructional designers.

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