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TECHNOLOGY AND HIGHER EDUCATION | RESEARCH ARTICLE

Synchronous and Asynchronous Online Learning: Perceptions of Students at a State University in Turkey

Mehmet Gazan*

Abstract: This case study explored English preparatory school students' experienced perceptions of synchronous and asynchronous modes of distance education. Qualitative data from 24 participants, who study at a state university and experienced both modes, were collected via semi-structured interviews. Thematic analysis was conducted to analyze the data. The analysis included themes generated from the participant responses. The results showed that participants favored the flexibility aspect of both synchronous and asynchronous modes by repeatedly stating adjectives like easy and comfortable. Cybersecurity, technical problems, and interaction themes were stated as the major weaknesses of both modes. The results of this study can be taken into consideration to create a better distance learning environment for language learning and increase learner satisfaction with the courses.

Keywords: Synchronous learning; asynchronous learning; online education; distance education.

In the previous decades of language teaching, much research has focused on distance learning emphasizing it as a key factor in compensating for traditional face-to-face classrooms and being a great aid in teaching (Arkorful & Abaidoo, 2015; Katane et al., 2015). Some teachers have been hesitant in their attitudes to distance & online teaching environments due to a variety of reasons including technical hardships, lack of Information and Communication Technologies (ICT) skills, and ethical considerations as maintained by Alebaikan (2010). On the contrary, a great number of educational stakeholders have been in favour of the blended education on the grounds of easy access, learner centeredness and communicativeness. (Dashtestani, 2014).

Turning now to the perspectives of the modern-day learners, who can be classified as Generation Z and digital natives & tech-savvy, it can be stated that they have more inclination in utilizing whatever electronic device they have around them compared to the previous generations (Krause et al., 2017). Due to these reasons, it has been always an enormous challenge for the teachers to keep up with the recent developments in their fields and thus catering for students' needs as well as the expectations of their institutions. In line with these expectations and technological developments, synchronous and asynchronous distance learning modes have emerged. To provide a short explanation, although these terms seem different, they have some certain inherent similarities as well. Scheider (2019) lists three of them: Attending class from anywhere (no requirement of being physically in the classroom), communicating regularly with course instructors and the ability to form networks with their classmates. To mention the discrepancies, Pappas (2015) pointed out that in synchronous learning students need to attend class virtually by logging on to a platform and thereby participate in the class discussions. Namely, their physical presence in a virtual setting is required. This type of learning can happen in live webinars, or on CMC (Computer-Mediated Communication) platforms that offer instant messaging. On the other hand, asynchronous learning does not call for learners to be in a certain place at a specific time. Therefore, students can reach the courses regardless of time and place as long as they have internet connection (Lawless, 2018). In this sense, it can be maintained that asynchronous learning is more flexible and more student-centered. This type of CMC-based learning does

not necessarily have to be a pre-recorded video lesson. E-mails and blogs may also work for the same purpose. Overall, students' and instructors' perceptions may differ according to their needs towards (dis)favoring synchronous or asynchronous learning modes and both of them offer pros and cons. No matter how many studies have been conducted about the teachers' side, the students' opinions still need further investigation. Thus, this article aims to provide a detailed conceptualization of student's perceptions of synchronous and asynchronous learning modes and fill the gap in the literature about this matter from the perspectives of English language learners. In this theoretical and empirical research study, specific attention was given to the analysis of students' point of view since their perceptions can shape further implementations of teaching and guide people who are interested in education. Furthermore, pedagogical consequences of using both modes in the same environment can be observed better.

1. Literature Review

Up to now, a number of studies have attempted to explain why students have warmer and/or colder attitudes towards two modes of distance learning (synchronous or asynchronous) and highlighted the factors that are associated with their perceptions (Cox et al., 2004; Hopkins, 2010; Somenerain et al., 2010).

1.1. Studies Focusing on Synchronous Learning

There are a lot of research papers dealing with student perceptions about this issue and as it was previously stated, social interaction is one of the biggest motives for students who favor a blended synchronous learning environment. According to Szeto & Cheng (2014), students want to interact with each other and with the instructor no matter what method of teaching their instructors implement. This view is also supported by Kuo and colleagues (2019) who put forward that both student-student and student-teacher interactions were significant predictors of student satisfaction and it has an impact on their achievement. In the second place, flexibility and comfort can be included in the positive aspects of synchronous mode. For instance, as Wang and colleagues (2018) concludes, the students favored the flexibility of synchronous learning since it provided them extra chances for them to participate in the lessons from anywhere using any device. This flexibility and comfort offered more participation in the lessons.

Contrary to the aforementioned perceived benefits, Wang and colleagues (2018) mentioned in his article that students disliked some aspects of synchronous learning mode. They have highlighted the significance of problems related to technology. To illustrate, one of the participants said he had neither the necessary devices nor internet connection. Moreover, the tool that is being used for this type of learning might pose challenges including delays in communication or lack of safety for protecting the data. These aspects can have an impact on students' perceptions towards this mode. Whilst Wang and colleagues (2018) identifies technical dimensions of the challenges, Lawless (2018) questions the social presence side as a downside of this mode. In other words, inflexible learning schedule can be a significant disadvantage as the learners might not be able to connect to the platform at the same time flawlessly. Similarly, Yamada & Akahori (2007) supported the findings of the previous author by analyzing the social presence issue and their study discovered that social presence hindered the consciousness of the learning context by being inflexible for some of the students. A study carried out by Karal and colleagues (2010) and titled "Perceptions of Students Who Take Synchronous Courses through Video Conferencing about Distance Education" investigated students' perceptions. According to the results of the study, students claimed eye contact, feeling of loneliness and communication deficiencies as the main drawbacks.

1.2. Studies Focusing on Asynchronous Learning

This section presents a short review of the recent literature pertaining to the asynchronous mode of distance learning. As far as the seminal contributions are investigated closely, it can be proposed that most of the research has addressed the factors affecting student satisfaction. To name a few, a study done by Swan (2006) indicated that students favored active discussion among course participants more in this mode. In a similar vein, the findings of Lopez & Rodriguez's research (2006) proved that students preferred asynchronous mode since it gives them more opportunities regarding the possibility to participate. Namely, these participants thought this mode is easier to participate in a lesson than a traditional classroom environment. According to Pinto-Llorente and colleagues (2017), students found autonomy aspect of asynchronous mode more because they can adjust their own learning pace individually. This might be also linked with the flexibility that this mode inherently possesses.

To mention the drawbacks of this mode from the perspectives of the students, interaction takes the lead. To begin with an earlier research study, Hiltz & Wellman (1997) sought to examine the virtual classroom context and their paper drew attention to the difficulty in establishing close personal relationships. Later, in their article, Ocker and Yaverbaum (1999)

concluded similar results. They compared CMC and face-to-face collaboration and their results demonstrated that students are less satisfied in asynchronous mode in terms of both group interaction processes and the quality of the group discussions. Finally, Lawless (2018) holds the view that lack of interaction also exists between students and the instructor in addition to the student-student interactions.

In view of all that has been mentioned so far, one may suppose that there seems to be more evidence to indicate the perceptions in a case where both modes of distance learning are applied. Overall, this section has attempted to provide a summary of the literature relating to the advantages and disadvantages of using both synchronous and asynchronous learning modes according to the students' perceptions.

To sum up, previous studies conducted on this specific topic have almost exclusively focused on one mode of distance learning and there needs to be a further investigation of a case study where both modes are experienced within the same course.

Research Questions

- What are students' overall perceptions of distance learning?
- What are the reasons for students to favor/disfavor synchronous education?
- What are the reasons for students to favor/disfavor asynchronous education?

2. METHODOLOGY

2.1. Research Design

In this intrinsic case study, qualitative method was adopted to obtain rich descriptive data to facilitate the exploration of the issue. First of all, this type of method was chosen over the quantitative one as the research questions of this study are open to interpretation and necessitate personal opinions and perceptions of the participants by not limiting them only for a couple of options. According to Reeves and colleagues (2006), "qualitative interviews are important in generating rich, in-depth data that illuminate our understanding of complex social, behavioral and educational issues" (p.291).

As a part of the qualitative research design, semi-structured interviews were implemented. This type of interview offers several benefits to the researcher. Klandermans and Staggenborg (2002) notes that semi-structured interviews provide a greater opportunity to discover the respondent's interpretation of experiences and thoughts in their own words. On the other hand, Hove and Anda (2005) remind the probable challenges of using semi-structured interviews such as estimating the necessary costs and ensuring good interaction between the interviewer and the interviewees. However, both of these issues are not a challenge for this research study as the interaction between the two parties has been already consolidated with the help of a common classroom teaching setting. In short, intrinsic case studies, qualitative method and semi-structured interviews serve the same purpose accordingly to triangulate the data.

2.2. Context

This study was conducted online with students of a state university in Ankara, Turkey. For the purposes of distance education, a video-conferencing platform named ZOOM (a CMC tool that allows its users to have conferences, video webinars and meetings in general) and an asynchronous (an online tool designed by Pearson English and named as myenglishlab helps teachers and students to access course materials including grammar videos and online messaging) platform were used. Selection of these tools was up to the institution itself. The students had their regular weekly instruction via ZOOM starting from the 16th of March, 2020 till the 6th of May, 2020 on weekdays. During this period, the students did not participate in a traditional classroom. Their instruction took 2 hours per day. The course instructor inspected their participation on a daily basis. At the same time, the students watched videos of the relevant lessons via myenglishlab and did necessary grammar drills on that platform. Both platforms provided the students to communicate not only with the instructors but also among themselves via instant chat feature. Thus, the participants had a chance to evaluate both modes of distance education based on their 8 weeks of experience.

2.3. Participants

In order to collect data from the participants, homogeneous purposive sampling method was adopted. Palinkas and colleagues (2015) suggests that this type of sampling covers choosing people who are especially experienced with a phenomenon of interest. The most important reason for this selection was that all of the participants share the same set of characteristics as shown in the remaining part of this chapter.

To begin with the description of the participants, they were English Preparatory School students at a state university in Ankara. The total number of the participants was 24 and they were all at the age of 18. They completed their secondary education in various high schools in Turkey. Then, they became the members of the same classroom and they had been allocated into that classroom according to their English proficiency levels according to an exam conducted by the university at the beginning of the fall term of 2019-2020 academic year. Their proficiency level was intermediate (B1). That is, the students were homogenous in their English proficiency. All of the students used the same tools and went through the same English instruction, experience and exams throughout the whole term. Besides, they were taught by the same English teacher. Lastly, all of the participants experienced the same distance learning tools in the same way. Beginning from the 6th week of the spring term, they were expected to follow their regular education via two distance education tools. Before that, the participants had experience with only one distance education tool named “myenglishlab”. They were able to study reading, listening, writing skills and grammar on that tool. However, factors like their previous distance education experience, socio-economic background, ethnicity and gender were not taken into consideration and viewed as independent variables for this study.

Given all these circumstances, these shared common characteristics paved the way for a purposeful sampling strategy.

2.4. Data Collection

In order to obtain a comprehensive understanding of the case, semi-structured interviews (See Appendix A) comprised of 7 open-ended interview questions were sent. To illustrate the content of the questions briefly, they commenced with the participants’ general views about distance learning and then followed by asking them advantages and disadvantages of each method. Finally, the participants were asked if they have any further comments or questions. To add, these interview questions were not copied or adapted from another study. Rather, because it is an intrinsic case study per se, they were formed by the researcher himself and directed to the participants.

To conduct interviews with the participants, a tool named ZOOM that enables easy video chat was used. The reason why it was chosen to gather the data is the fact that practicality was one of the main concerns of the study. Firstly, it is free of charge and suitable for students. Secondly, this tool can record the videos of the chats and store them on a computer or a disk, which is highly useful for the aims of this study.

Before collecting data, all participants were sent a consent form (Appendix B). Participants were able to read the overall purposes of the study and stated their approval if they wanted to participate. In addition, participants were informed that they were free to withdraw from the study at any point and their videos would be recorded. They were also asked if they had any technical problems preventing them from participating in the interviews. Then, upon receiving 24 approvals via email, an online meeting schedule was arranged with the participants. At this point, they were given numbers (e.g. Participant1, Participant2, etc.). The order of the interviews followed this way. First, the researcher explained brief definitions of what synchronous and asynchronous terms mean to each participant. Then, they were asked the interview questions one by one. The interviewees were not asked extra questions. Each interview was recorded and these recordings were kept in a file on a Sony Vaio computer. The total amount of interviews took 168 minutes and 54 seconds.

For a better conceptualization of the research questions and the related interview questions, Table 1 is given below.

Table 1. Matching research questions with related interview questions

Research Question	Interview Question
1. What are students’ overall perceptions of distance learning?	1. How do you describe your overall experience with distance learning? Give 3 adjectives to describe it.
	2. How do you compare synchronous and asynchronous language learning with traditional face to face classroom?

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- | | |
|---|--|
| <p>2. What are the reasons for students to favor/disfavor synchronous education?</p> | <p>3. What potential benefits does synchronous language learning have?</p> <p>4. What potential disadvantages does synchronous language learning have? Do you have any suggestions about it?</p> |
| <p>3. What are the reasons for students to favor/disfavor asynchronous education?</p> | <p>5. What potential benefits does asynchronous language learning have?</p> <p>6. What potential disadvantages does asynchronous language learning have?</p> |
-

3. Data Analysis

The collected data was analyzed by using thematic analysis. Braun and Clarke (2006) defines thematic analysis as “a method for identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail” (p.6). The phrases/steps of thematic analysis pinpointed in their article (2006) in the exact following order: identifying and familiarizing with data, identifying codes, finding themes, finalizing themes, reviewing each theme and analyzing documents.

Since qualitative studies can be defined as iterative and inductive, the first phase of the analysis already began by forming concepts and taking necessary notes while the interviews were being held to familiarize with the data. As Javadi and Zarea (2016) argue, it is a very hard and time-consuming procedure to conduct, yet highly valuable. Later, interesting and valuable elements in data were discovered and kept in another Microsoft Excel file by paying attention to the random numbers that were attributed to the participants (P1, P2, P3, etc.).

After that, themes were searched in the data. As Vaismoradi and colleagues (2016) conclude, “Themes are codes that have a common point of reference and has a high degree of generality that unifies ideas regarding the subject of inquiry” (p.101). Therefore, by analyzing these “codes”, common reference points/themes that repeated as a pattern among the answers of the interviewees were sought.

Later, these themes were categorized in line with the research questions and being either a disadvantage or a disadvantage for the explanation of the second and the third research questions. For example, a recurring code “lack of hardware” was linked with “technical problems” theme and it was combined with disadvantages part of the related distance education mode. Namely, codes composed the sub-groups of the themes as illustrated in Figure 1 below. Then, each theme was reviewed for its credibility as well as for checking that all data were sorted out in some relevant theme.

Finally, a report documentation of the data was designed by making use of tables, figures and some selected extracts. Finally, yet importantly, the analysis was related back to the research questions and previous literature reviewed in this study.

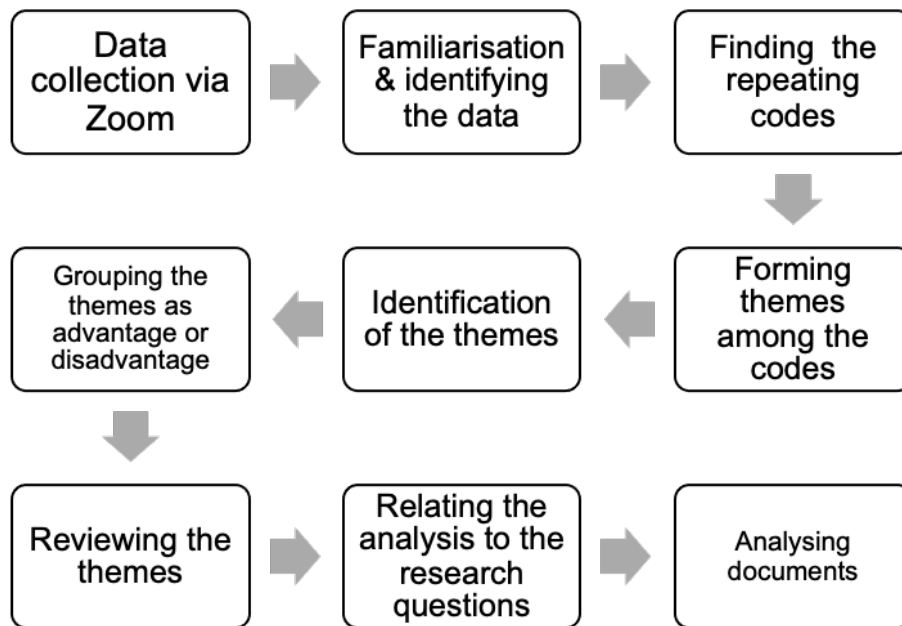


Figure 1. Process of data analysis

4. Findings

In order to shed light on the exploration and analysis of the research questions, Table 1 provided a conceptual framework of each research questions' corresponding interview question. As it was explained in the methodology section of this paper, thematic analysis was utilized for the in-depth analysis of the data. Based on the themes that were emerged from the data each concept will be described in more detail with illustrations from cross-analysis in an effort to answer the research questions in this section. The results and analysis of the first interview question showed overall experiences and perceptions of the participants. So as to form a clear cut between these two aspects (i.e. participants favoring/disfavoring distance learning), it can be argued that statements of the 15 participants (62,5 %) revealed favoring attitudes and nine of the participants (37,5 %) stated their negative perceptions. As the participants were also asked to give 3 adjectives to describe their experiences, analysis of these adjectives was also quite useful. Figure 2 below indicates the reoccurring adjectives.

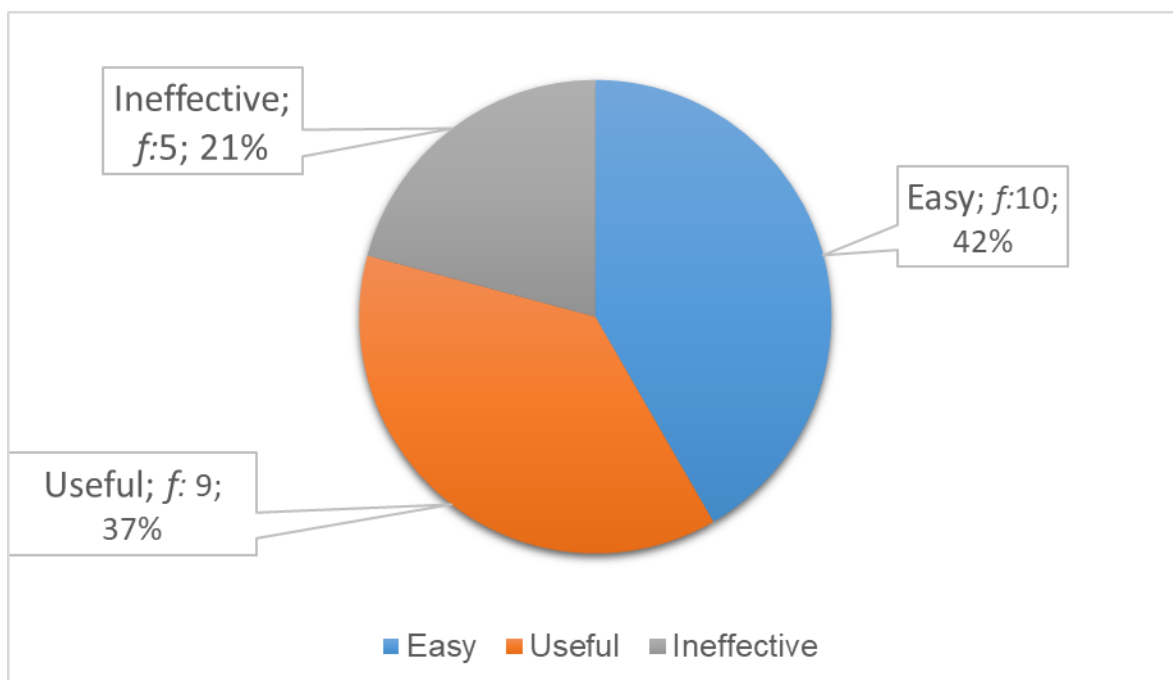


Figure 2. Illustration of overall experience with distance learning

The numbers in Fig. 2. illustrate the participants overall perceptions of distance learning. The adjective “easy” became prominent and told by 10 of the participants. It made 42% of the pie chart. “Useful” was uttered by 9 of the participants and it comprises 37% in the pie chart. Finally, those who disfavor their overall distance learning experience (nine of the participants) used the word “ineffective” (21% in the pie chart).

As for the themes, two of them were prominent. These were “flexibility” for the favoring side and “interaction” for the other side. There are two extracts from the interviewees below about these themes:

“When I think about not going to school and joining lessons online, I feel more freedom. I can study whenever I want. Distance learning is the best for me.” (P3)

“Maybe distance learning has some advantages but still I like face to face education more. I like chatting with friends, going to events after school. I don’t feel social like this.” (P12).

The second interview question, comparing traditional classrooms and distance learning, found support for the first interview question. In particular, the comments about favoring traditional classrooms were striking in that none of the studies reviewed for this study mentioned factors such as discipline at home or too many distractions. For instance, P4 commented that “I cannot study at home very well because I feel more disciplined at school”.

After the analysis of overall experiences with distance learning, 3rd and 4th interview question describe a detailed exploration of perceptions of synchronous learning mode and answered the second research question. Figure 2 below illustrates the issue by making use of reiterative responses and corresponding categories according to the codes.

Table 2. Students’ perceptions of synchronous mode

Type of Perceptions	Themes and Frequency	Emerging Codes
Advantages	Flexibility (f8)	<ul style="list-style-type: none"> • Ease of access • Physical presence • Relax environment
	Interaction (f8)	<ul style="list-style-type: none"> • Communication among the students • Between the instructor and student
Disadvantages	Technical Problems (f10)	<ul style="list-style-type: none"> • Lack of necessary infrastructure • Problems with the applications and websites • Hardware problems
	Cybersecurity (f6)	<ul style="list-style-type: none"> • Recordings of the lessons • Safety of the account information

Closer inspection of Table 2 reveals four main themes: Flexibility, interaction, technical problems, and cybersecurity. As for the flexibility, the results demonstrated that when there is no obligation of social presence in a classroom, the participants felt more satisfaction. Additionally, the participants liked the fact that they can join the lesson regardless of their location. They emphasized the flexibility advantage of this mode over the traditional classroom setting. Therefore, it can be maintained that the participants set similar criteria for satisfaction from the synchronous mode.

“Normally I don’t even want to take the bus and go to school. It is the worst part of my education. If I had distance education all the time, maybe I would feel more satisfied with my lessons”. (P6)

8 of the participant responses (33,3 %) indicated instances of views about interaction. The analysis of the interaction theme suggested two different ways of communication: Interaction between the instructor and the students & interaction among the students. As for the first type, P10 concluded that “I am OK with online video lessons because like in the normal classroom I click on a button and raise a hand. I can ask my question to my teacher. It is not difficult”. As it is known well,

with the help of special buttons, the virtual classroom can be turned into a real classroom. For example, students can raise their hand, have a chat with the instructor and even reflect on something with an emoji. This finding correlated with the research done by Kuo, Y. et al. (2019) signifying interaction as an important predictor of student satisfaction and achievement.

As for the disadvantages of the synchronous mode, the participants' responses can be categorized under two main topics. Firstly, technical problems constitute the first category. In total, 10 of the participants (41,6%) mentioned this as a weakness. Then, among these 10, four of the participants mentioned that they did not have the necessary hardware for accessing the course materials from time to time. This included internet connection, computer, earphones, etc. Apart from these problems, as also mentioned by the participants, the tools that were used itself created problems such as poor-quality sound, image, delays in emails, etc. One of the participants (P21) noted that:

"In one of the lessons my teacher's voices disappeared suddenly. I wanted help from him, he helped, but it didn't work. Finally, I couldn't understand the lesson that day."

As for the final perceived disadvantage of synchronous mode, six of the participants mentioned the cybersecurity issue. They remarked that they were not sure if some anonymous people can steal their account information, identity, images or sounds.

"The news said my credit card information can be stolen by some people. I talked of this to my teacher, he said it is not a problem. I don't know maybe my videos or lesson videos can be watched everywhere". (P9).

When the participants were asked their suggestions about this topic, seven of them stated their favor and willingness for distance education by saying:

"More video lessons can be useful. 10 hours a week is not enough for me" (P2).

"If you had more online lessons, I would be happier" (P7).

The remaining 16 of them said they did not have any valuable suggestions.

The following section will demonstrate the participants' reflections on the pros and cons of the asynchronous mode of distance learning by addressing the emerging codes.

Table 3. Students' perceptions of asynchronous mode

Type of Perceptions	Themes and Frequency	Emerging Codes
Advantages	Flexibility (f14)	<ul style="list-style-type: none"> No requirement of physical presence Ubiquitous access
	Consolidation of Learning (f6)	<ul style="list-style-type: none"> Individual learning pace Opportunity to do the activities again
Disadvantages	Technical Problems (f10)	<ul style="list-style-type: none"> Lack of necessary infrastructure Problems with the applications and websites Hardware problems
	Lack of a real classroom environment (f8)	<ul style="list-style-type: none"> Less face to face communication Less peer teaching Limited social interaction Practicing speaking skill

As pointed in Table 3, the results of the analysis of this section yielded two similar themes with the synchronous mode: Flexibility and technical problems. These common themes seem to provide evidence that two modes are actually perceived similar in some ways. About flexibility, P7 remarked that "When the lesson is not online, I can join because sometimes I have work and I can't join. Videos can be watched every time. For example, I don't sleep at night and do my homework at night". In the same vein, 6 of the participants stated that they favor asynchronous mode more because it allows them more flexibility considering the presence and participation issue in online lessons. This aspect can be also combined with the consolidation of the learning theme. In this mode, the participants open the tool and watch the videos of the lesson again, do the exercises and more importantly see their progress all the time regardless of time and place. All of these might contribute to their learning satisfaction and have an impact on their success. About the technical problems, there wasn't any significant code arising from the responses that do not correlate with the reasons stated for the other distance learning mode.

Another critical issue to be discussed in the light of the findings is that lack of a real classroom environment was mentioned by eight of the participants (32,2 %). One of them concluded that "Even if I am not successful, I can hear and learn my friends in the normal classroom. For example, my desk-mate helps me immediately when I need. Here I write in the chat and wait for the answer. I don't like it." (P18). In a similar response, P2 said that "I miss my friends and our friendship. Online education is not the same thing." This is an important finding in understanding students' experiences and perceptions about asynchronous tools because they might not provide the same classroom experience although it offers offline chat. Finally, two of the participants reflected on the issue with a negative stance. One of them (P15) concluded: "If we don't have online lessons, it is bad for my speaking skills. I could speak in the classroom more". This excerpt and the previous responses show how important interaction and communication for education is.

The seventh interview question asking for extra suggestions or questions yielded two valuable insights. The participants mentioned that they needed more feedback and they would favor it more if this course was a blended one. These two ideas might be of great help while designing a new course or making decisions about pedagogical issues.

5. Discussion

Based on the findings of this study, it can be argued that the responses were sufficient enough to form a basis for the analysis of the research questions. First of all, to remind the key findings shortly, the number of participants who favored distance learning (15 participants) was slightly more than those who did not (9 participants). Irrespective of the responses, these figures indicate how effective distance learning is for this specific research context. Upon collecting data about overall perceptions of the participants, the second and the third research questions revealed significant findings for the literature. Synchronous and asynchronous modes of distance learning have been echoed in the previous research studies (Cox et al. 2004; Hopkins, 2010; Pappas, 2015; Somenerain et al., 2010).

The findings of the second research question are commensurate with the previous literature on students' perceptions of synchronous distance learning which has revealed students' overall satisfaction with that mode. As shown in Fig. 2., the students favored flexibility at most. This finding correlates with Wang and colleagues (2018) and Hall (2001). Then, thematic analysis of the data offered similar themes about the interaction issue with what was put forward by Karal and colleagues (2010) and Yamada and Akahori (2007). The students disliked that they have fewer opportunities to interact with their instructors and classmates during the distance learning period. Furthermore, this theme emerged as a key pattern in an asynchronous mode as well. To overcome this lack of interaction, educational authorities may find out more ways to increase communication online. In that way, there might be an increase in student achievement and satisfaction of the course both for this particular context and for elsewhere.

Thirdly, technical problems were mentioned in the findings of this study as it did in Lawless (2018) and Wang and colleagues (2018). If all the students have equal chances to have access to online learning, this important barrier can be handled better. When the findings of the research papers were reviewed for this study, there was no mentioning of the "cybersecurity" theme in none of them. This study was unique in this sense by bringing up this focal issue. Hence, based on the data available, the security of the data might have played a key role in students' perceptions of varying degrees. This "abnormality" can be explained by the fact that the participants were classmates and therefore might have had similar mindsets towards some issues inspired by the news around them.

6. Conclusion

To conclude, the present study was limited to the Turkish higher education context. It focused on students' perceptions and provided insights about their experiences with distance learning, which is inevitably in high demand in today's world. The data unearthed some vital issues such as cybersecurity and the significance of functioning of not only hardware systems but also software systems for a better experience with online learning platforms. Besides, this study contributed to the existing literature with its parallel results as well.

Nevertheless, this paper has also limitations. Firstly, this study was conducted with 24 participants. Small sample sizes may undermine opportunities to draw useful generalizations to make broad recommendations based upon the findings. As for the second limitation, a qualitative method was used to collect the data and a better exploration of the research questions. This might be more challenging while evaluating more samples. To provide recommendations for future studies, more participants can be included, qualitative and quantitative methods can be utilized together. Further research can also be conducted in an environment where there are no technical problems. Then the results may yield more pedagogical implications for the whole sphere of educational stakeholders.

Disclosure of Conflict

The author declares that they have no conflicts of interest.

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APPENDICES

Appendix A. Semi-Structured Interview Questions

- 1-How do you describe your overall experience with distance learning? Give 3 adjectives to describe it.
- 2-How do you compare synchronous and asynchronous language learning with traditional face to face classroom?
- 3-What potential benefits does synchronous language learning have?
- 4-What potential disadvantages does synchronous language learning have? Do you have any suggestions about it?
- 5-What potential benefits does asynchronous language learning have?
- 6-What potential disadvantages does asynchronous language learning have? Do you have any suggestions about it?
- 7-Do you have any other comments or questions about the topic?

Appendix B. Interview Consent Form

Interview Consent Form

This is a consent form for a research study conducted by Mehmet GAZAN. This research study aims to investigate students' perceptions of synchronous and asynchronous distance learning. Participation in the study is on a voluntary basis. No personal identification information is required for the interview. Your answers will be kept strictly confidential and evaluated only by the researcher; the obtained data will be used only for scientific purposes. The research also notifies hereby that a video of your interview will be recorded.

The interview does not contain questions that may cause discomfort in the participants. However, during participation, for any reason, if you feel uncomfortable, you are free to quit at any time. In such a case, it will be sufficient to tell the person conducting the interview that you cannot complete the interview.

If you want to participate in the study on your own will, please send an approval email to: mehmetgzn.metu@gmail.com