





Academic engagement experiences of pre-service teachers during the Covid-19 online education process

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Highlights

- The online education process both facilitated and hindered pre-service teachers' academic engagement.
- Facilitating experiences include effective learning, time efficiency, and flexibility opportunities in the process.
- The drawbacks of the process include concentration problems, stressfulness, the inexperience of instructors, and lack of interaction, motivation, and socialization.

Abstract

This study aims to explore the academic engagement experiences of pre-service teachers (PSTs) during the COVID-19 online education process. For this purpose, a phenomenological study was carried out with a sample of 10 PSTs studying at the Department of Foreign Language Education (FLE) at a state university in Türkiye, selected through purposeful sampling. Data were collected through semi-structured interviews. Content analysis was utilized to analyze and interpret the data. The outstanding results include that there were both facilitating experiences and drawbacks of the process during online education. The facilitating experiences are related to effective learning, time efficiency, and flexibility opportunities of the process while drawbacks of the process are centered around concentration problems, stressfulness, the inexperience of instructors, lack of interaction, motivation, and socialization. Besides, the factors that increased academic engagement include keeping cameras on/off during lessons, facilitative instructors, autonomous learning, and technological facilities. On the other hand, the factors that decreased academic engagement involve keeping cameras on/off, having technological obstacles, instructors' attitudes and teaching styles, distracting home environment, and the lack of interaction and interest. Lastly, the suggestions include using varying methods during lessons, arranging course hours appropriately, having a common course policy among instructors, and increasing student involvement in the whole process.

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1. Introduction

In 2020, World Health Organization (WHO) declared a pandemic caused by the COVID-19 virus, which is highly contagious and surely fatal (Dhawan, 2020). This pandemic did not let the education system remain as before since it created the necessity to switch to online education all of a sudden all around the globe (Chiu et al., 2021; Dhawan, 2020). Nonetheless, there are lots of advantages of online education that education systems had to realize mandatorily due to the pandemic. According to Dhawan (2020), learning online is an opportunity as it allows learners to access from the countryside and/or remote places even by reducing transportation and housing expenses. Dhawan (2020) further states that time flexibility and life-long learning are two other arguments included in pedagogy related to online pedagogy. In light of these

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arguments, it is apparent that the COVID-19 pandemic has caused a lot of changes in terms of online education in the world; thus, it is possible to allege that these effects will be permanent and cause breakthrough changes in online education (Chiu et al., 2021).

First of all, the term “online education” can be defined as an emerging method of teaching and learning from a distance by utilizing various sources including audio and text communication, the internet, software, and technological devices (Basilaia & Kvavadze, 2020). Along similar lines, as Singh and Thurman (2019) state that “blended learning, online education, e-learning, online courses” are some of the expressions that overlap regarding the definition of online educational processes. When it comes to the term “academic engagement”, it is possible to say that there are various definitions in the literature. According to Ouweneel et al. (2014), “academic engagement” has turned into a more pertinent concept since students’ burden of high achievement and the expectancy of successful completion of studies put pressure on them. However, the most relevant definition was made by Newmann et al. (1992) as “student engagement in academic work”, which, for this study, can be used interchangeably with academic engagement. Newmann et al. (1992) refer to academic engagement as “student engagement in academic work as the student’s psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote” (p. 12). They also add to this definition that students devote themselves to complete assignments with some concerns, such as grades as symbols of high achievement and getting approval for social acceptance and appreciation (Newmann et al., 1992). An important point made by Newmann et al. (1992), which is also in line with this study, is that high-achiever students who complete their assignments and engage well in academic work do not necessarily ensure engagement with expertise in a topic or skill.

In light of all of the definitions, explanations, and arguments stated above, the current study will define academic engagement as an indicator that combines academic identification, which refers to getting along with teachers, having an interest in the subject matter, and any related behaviors and attitudes, and academic participation that captures student’s work effort both inside and outside of school, including hours spent on homework, meeting deadlines, not skipping classes, and so on. (Statistics Canada, 2011).

Several studies in the literature can be found regarding the academic engagement of pre-service teachers during online education, even dating back to the pre-COVID-19 era. Pittaway and Moss (2014) reported on an investigation of a completely online unit, which refers to the online type of delivery of instruction, to improve prospective teachers’ online engagement in general. The data analysis obtained from the online unit demonstrated that pre-service teachers engaged academically, and they kept up enhancing their competencies during online education as a result. The academic engagement in this online unit revolved around the participation of pre-service teachers in discussion groups (Pittaway & Moss, 2014). Erarslan and Arslan (2019) demonstrated that 41 pre-service English teachers had both negative and positive opinions on online education. They also found out in their study that online education added to the prospective English teachers’ e-autonomous learning competencies (Erarslan & Arslan, 2019). During the COVID-19 online education, similar studies were conducted about online academic engagement but with a special focus on the effects of the pandemic and the inevitability of online teaching and learning in the future. A phenomenological study with 24 pre-service teachers studying at a state university in Türkiye put forward four themes on the experiences of the pre-service teachers during COVID-19 online education which include successful implementation factors, challenges, opportunities, and recommendations to enhance online learning (Özüdoğru, 2021). Özüdoğru (2021) found out that prospective teachers went through socio-emotional, pedagogical, and technological challenges, and these challenges were much more than the opportunities provided by online education. Also, Özdoğan and Berkant (2020) also revealed in their study that the most mentioned disadvantages of online education are related to loss of motivation, lack of measurement and evaluation, inadequate resources such as internet and computers, inequality of opportunity in education, inadequate communication and interaction, technical problems, inadequate socialization, and being unprepared for the online education process. Another study in Indonesia with a

sample of 285 participants found that pre-service teachers are actively engaged in online education, yet they might differ in readiness and engagement based on their age and gender (Laksmiwati et al., 2022).

As aforementioned, the COVID-19 pandemic obliged students and teachers to switch to online platforms for educational purposes (Chiu et al., 2021). It also seems that the post-pandemic effects related to the online education process are here to stay even if the pandemic itself comes to an end. Chiu et al. (2021) claimed that the pandemic has become a reason to be aware of the need to extend online-education-related technological and pedagogical knowledge in addition to taking students' psychological needs into account. It might be argued that online education has started to form an integral part of education systems all around the world, so as Dhawan (2020) highlights that online teaching and learning should be taught as essential concepts to increase their quality. Therefore, this study aims at examining the academic engagement experiences of pre-service teachers in the Foreign Language Education (FLE) department. By this means, the present study aims to indicate the possible factors affecting the participants' online academic engagement experiences. Additionally, this study will make suggestions on how to increase prospective teachers' academic engagement levels during the online education period. Moreover, in light of the prospective teachers' needs and expectations peculiar to the online education process, the findings are expected to contribute to the development of teacher training. All in all, it is aimed to explore the academic engagement experiences of pre-service English teachers during the COVID-19 online education process.

2. Online Engagement Framework for Higher Education

Redmond et al. (2018) proposed a conceptual framework for online engagement for higher education that involves five key elements as social engagement, cognitive engagement, behavioral engagement, collaborative engagement, and emotional engagement. It is argued that these elements are essential for effective learning during the online education process. The framework is presented in Figure 1 below.

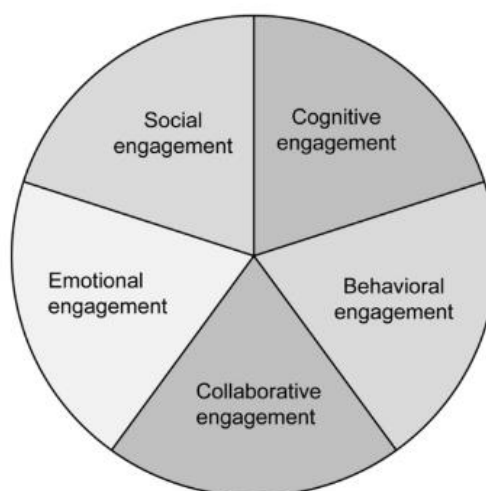


Fig. 1. Online Engagement Framework for Higher Education (Redmond et al., 2018, p. 189).

In the framework, social engagement is described as the social investment of students in their college experience (Redmond et al., 2018). The outstanding indicators of the social engagement component of the framework involve building community, creating a sense of belonging, developing relationships, and establishing trust in the online higher education environment among peers and instructors. As for cognitive engagement, it refers to the active learning process, which is considered as the essential component of engagement (Bowen, 2005). Among the indicators of cognitive engagement exist thinking critically, activating metacognition, integrating ideas, justifying decisions, developing deep discipline understandings, and distributing expertise. When it comes to behavioral engagement, it is regarded with the positive learning behaviors of learners during the online education process (Redmond et al., 2018). The

indicators of the behavioral engagement of the framework include developing academic skills, identifying opportunities and challenges, developing multidisciplinary skills, developing agency, upholding online learning norms, and supporting and encouraging peers. Another key element of the framework is collaborative engagement which refers to developing relationships, networks and collaboration that foster learning (Redmond et al., 2018). Learning with peers, relating to faculty members, connecting to institutional opportunities, and developing professional networks are counted among the illustrative indicators of this component. Lastly, emotional engagement is the emotional reaction of learners to learning (Redmond et al., 2018). The indicators include managing expectations, articulating assumptions, recognizing motivations, and committing to learning.

3. Methodology

3.1. Research Design

The present study aims to explore the academic engagement experiences of pre-service teachers in the online education process during the COVID-19 pandemic period.

In line with the aim of the study, the phenomenological research design is taken as a basis for a qualitative research method because the focus of phenomenological studies is to explore what individuals experience and how they experience the phenomenon of interest (Patton, 2002). In other words, in the current study, academic engagement during online education is the phenomenon being investigated from the perspective of PSTs.

3.2. Data Collecting Tools

In qualitative studies, interviews are argued to enable researchers to gather rich information about participants' experiences, perceptions, and opinions about the topic of interest (Fraenkel, et al., 2015; Yıldırım & Şimşek, 2011). Specifically, the current phenomenological study aims to gather detailed experiences from the perspective of the participants. Since each individual's experience differed during this period, individual interviews were conducted to focus on the shared experiences of participants, which is one of the requirements of phenomenological studies (Patton, 2002). Considering this, in the present study, a semi-structured interview protocol was developed by the researchers for data collection. Once the draft questions were formulated, expert opinions were taken from two faculty members and one Ph.D. candidate working at the Faculty of Education and having expertise in qualitative research. Afterward, two cognitive interviews were done with one third-year and one fourth-year PST from the FLE department. The necessary revisions were done to finalize the interview protocol. The final version of the protocol consisted of 13 main questions in five sections regarding (a) demographic information, (b) opinions and experiences on online education, (c) academic engagement in the online education process, (d) factors affecting academic engagement, and (e) recommendations on increasing academic engagement in online education.

3.3. Sampling

The sample in phenomenological studies is identified among information-rich individuals who have experienced the target phenomenon so that they can contribute to the in-depth exploration of the phenomenon (Creswell, 2013; Patton, 2002). In line with this, to select the participants of the current study, purposeful sampling was utilized. Among the purposeful sampling strategies, the sample was selected through a criterion-based sampling strategy. The criteria included to be studying in the FLE department at a state university in Türkiye and being either third or fourth-year student. In addition, participants must have experienced online education for at least one academic term where alternative online methods were used, and their face-to-face training was interrupted due to the COVID-19 pandemic. Considering these, 10 PSTs that met the criteria took place voluntarily in the current study. Among these 10 participants, six of them were female and four of them were male. Besides, six of the participants were third-year students and four participants were fourth-year students in the FLE department.

3.4. Data Analysis

For the analysis of the collected qualitative data from the interviews, content analysis was utilized, which refers to making sense of the data to come up with certain themes based on the frequent utterances of participants about their experiences with the investigated phenomenon (Patton, 2002; Yıldırım & Şimşek, 2011). First, all interview recordings were transcribed verbatim and read through to get an idea about the collected data. Later, each interview was read for a second time to determine the codes related to the phenomenon. After the coding process of all interviews was completed, the codes were grouped under relevant themes and sub-themes.

3.5. Validity and Reliability

To ensure the trustworthiness of the study, peer debriefing was applied to provide a different perspective to the study (Merriam, 1998). Hence, two of the 10 interviews were coded by two fellow researchers who have expertise in content analysis. The analyses were found consistent with minor differences, on which a consensus was reached afterward. The rest of the analysis process was carried out accordingly.

3.6. Research Procedures

The data collection process started after receiving ethical approval from Human Subjects Ethics Committee in May 2022. First, the target population was informed about the study by the researchers' announcements via email. The volunteer PSTs were contacted to make an appointment for interviews. Individual interviews were done with volunteer PSTs after they signed an informed consent form. Each interview was recorded with the approval of each participant to avoid any data loss. The data collection process ended when data saturation was reached (Frankel, 1999).

4. Results

The present study aims to explore the academic engagement experiences of pre-service English teachers during the COVID-19 online education process. In line with this purpose, the results section presents the findings of the study based on the content analysis of the collected qualitative data from the interviews held with 10 PSTs. The results of the content analysis are presented in themes, sub-themes, and codes.

Three dominant themes emerged in the present study as (1) experiences during online education, (2) factors affecting academic engagement, and (3) suggestions regarding increasing academic engagement during online education.

4.1. Experiences during Online Education

First of all, the experiences of participant PSTs in online education yielded two sub-themes as facilitating experiences and drawbacks of the process (see Table 1 below).

4.1.1. Facilitating Experiences

Regarding the first sub-theme of experiences during online education, most of the PSTs stated that they had facilitating experiences throughout the process in terms of effective learning, time efficiency, and flexibility of online education (see Table 1 below).

To begin with effective learning, it was revealed during the interviews that PSTs had positive learning experiences during online education in terms of effective online instructional methods and the use of online tools that contributed to their learning. It was also mentioned that PSTs had effective learning experiences thanks to the additional support and resources provided during the online education process. In relation to these, it was indicated that "*Online education was effective during the lessons of the instructors who provided additional support, such as additional resources and extra meetings from Zoom (PST2)*".

Most of the participants emphasized that their use of time effectively increased thanks to the online education process because of various factors, such as decreasing the loss of time between the lessons during

face-to-face education, physically less demanding nature of online education, and the chance to speed up the pace of the asynchronous courses during the online education process. A PST stated that “*I think the online period was useful because we were at home, and I was able to do a lot of things on my own because I didn't waste time between classes*” (PST7).

During the interviews, PSTs frequently reported that they enjoyed the flexibility that online education has brought. It was highlighted that many procedures, such as the delivery of assignments and take-home exams, have provided PSTs with an opportunity to handle the process more comfortably. In relation to these, many of the PSTs reflected on their facilitating experiences regarding the flexibility of online education in similar ways as in the following:

Online education was very flexible. In other words, the teachers were more comfortable, the homework was more comfortable. For example, the concept of the take-home exam was obviously a very comfortable one for me. (...) Rather than the face-to-face test, I can honestly say that those take-home exams have been very good for me (PST4).

Table 1.

Themes, Sub-themes, and Codes regarding Experiences during Online Education

Themes	Sub-themes	Codes
1. Experiences during Online Education	1.1. Facilitating Experiences	1.1.1. Effective learning 1.1.2. Time efficiency 1.1.3. Flexibility
	1.2. Drawbacks of the Process	1.2.1. Lack of motivation 1.2.2. Stressful process 1.2.3. Inexperience of instructors 1.2.4. Concentration problems

4.1.2. Drawbacks of the Process

When it comes to the online learning experiences that were negatively evaluated by the PSTs during the interviews, the lack of motivation, stressful online education process, the inexperience of instructors, and concentration problems emerged as prominent codes of the drawbacks of the process (see Table 1 above).

First, the low motivation due to online education was an emerging code during most of the participants' interviews. However, the lack of motivation was linked to different reasons, such as the lack of class interaction, lack of socialization, and change of environment according to different PSTs. The following represents an instance regarding these issues:

I also think it has a connection with motivation. I did not have a lot of motivation, frankly, uncertainties, health concerns, worries, fear of my family, and so on, when it all comes together... I mean, I had a lot of trouble focusing (PST8).

Most PSTs also highlighted that they experienced online education as a stressful process. Some of them mentioned the stress particular to online education due to various issues, such as turning on their cameras and microphones, feeling like in the spotlight, and so on.

Another drawback of the online education process by the PSTs was the inexperience of instructors in terms of using technological tools effectively during the online lessons. Some PSTs stated that “*The instructors*

were also very inexperienced, which is understandable. That is why I did not want to participate because they were not able to organize classes or anything like that very much. So, it was difficult for me” (PST4).

Last but not least, concentration problems were considered as a major drawback among the PSTs as nine out of 10 stated that they had huge problems in concentrating during the online lessons. A related quotation of PSTs is presented below:

I had trouble concentrating a lot, extremely. You look at a screen and it tires your eyes; it is very detrimental. I experienced it when my internet connection went down. I also experienced concentration problems; for example, when someone forgets to turn off their microphone, so different and disturbing sounds would be heard. Someone's cat would walk past from behind and it jumps on the keyboard, etc. (PST8).

4.2. Factors Affecting Academic Engagement during Online Education Process

The interview data revealed a second theme which is related to the factors that had an influence on the academic engagement of pre-service English teachers during the online education process. This theme also yielded two sub-themes as nurturing utilities and constraints as represented in Table 2 below.

Table 2.

Themes, Sub-themes, and Codes regarding Factors Affecting Online Academic Engagement

Themes	Sub-themes	Codes
2. Factors Affecting Academic Engagement during Online Education	2.1. Nurturing Utilities	2.1.1. Keeping camera on 2.1.2. Facilitative instructor 2.1.3. Autonomous learning opportunity
	2.2. Constraints	2.2.1. Lack of interaction 2.2.2. Keeping camera off 2.2.3. Technological obstacles 2.2.4. Instructors' attitude & teaching style 2.2.5. Distracting home environment 2.2.6. Lack of interest

4.2.1. Nurturing Utilities

The results showed that the participant PSTs were more engaged in online education thanks to several utilities that nurtured their academic engagement. Among these utilities, the PSTs most frequently stated keeping their cameras on during the synchronous online lessons, having facilitative instructors, and autonomous learning opportunity (see Table 2 above).

To begin with, the participants stated that keeping their cameras on motivated them to actively engage in online classes because they felt like they were being included or monitored. Moreover, turning their cameras on and seeing other students do the same were said to be increasing the interaction in the online classes, and therefore, their online academic engagement was increased in general. Some related statements of the PSTs regarding turning their cameras on are quoted below:

Turning my camera on helped increase my motivation. Thus, even when it is not mandatory, I was turning on my camera. When mine or the instructor's camera was not on, it did not feel like a lesson. ... Moreover, seeing other students on the screen during online lessons was actually a good motivation for me (PST1).

A number of participants emphasized the importance of professional instructors in the case of increasing their online academic engagement. The facilitative instructors who effectively integrated technology into their online classes and used varying methods and strategies to fit their lessons to the online environment were stated to be increasing the PSTs online academic engagement. Along these lines, a participant stated that *“Some of our instructors, who used technology very well, were benefiting from conducting breakout rooms or using different applications over the internet. So, these things were beneficial to add color to the lesson”* (PST3).

The participants mostly emphasized the importance of learner autonomy during the online education process. They claimed that in such a case, the learners should be more included in the decision-making process and some major educational decisions, especially regarding when and how to learn, should be made by consulting the learners. One participant shared that they improved their autonomous learning thanks to online education. A PST stated that:

I understood those recorded lessons very well on my own because I knew how I could learn better. ... I was very good at the lessons that I arranged myself and when I was in control, but otherwise, it was very difficult to sit in front of that computer at the time the instructor wanted, when there was nothing around when there was no school environment (PST1).

4.2.2. Constraints

Most of the PSTs stated that their academic engagement was much lower during the online education process compared to their academic engagement during face-to-face education due to various constraints. The lack of class interaction during online education, keeping their camera off, the technological obstacles they faced, instructors' unfavorable attitudes and ineffective teaching styles, distraction caused by the home environment, and the students' lack of interest appeared as codes for the sub-theme of constraints of online academic engagement (see Table 2 above).

Participants stated that classroom interaction decreased during online education and the lack of interaction between students and teachers led to a decrease in their online academic engagement. One of the PSTs stated that less interactive lessons were less memorable, especially during the online education process, as the students were not actively involved in the learning process. Accordingly, the following was expressed by a PST:

If it was a lecture style like this – the lessons that the instructor lectured a lot, in which I was very passive—it would not be a very memorable learning experience. ... Obviously, this kind of online course was not very efficient because there were things like that. But when we had instructors who were doing activities that tried to attract more students to the lesson, the lesson was very effective and memorable (PST3).

As some of the participants stated that turning their cameras on helped with their academic engagement during online times, some other participants also had parallel comments stating that not turning their cameras on affected their academic engagement negatively. To illustrate, a verbatim quotation is presented below:

I mean, frankly, even the best lessons accomplished half or something of their objectives. The instructor tells the same story again, but neither the instructor sees the students, because usually our cameras were turned off in the online class, and the instructor just lectures automatically. We don't feel like we are there, either; our attention is very scattered. There are other things in our heads, we cannot focus (PST5).

Several PSTs admitted that they experienced some technological problems that constrained their academic engagement during the online education process. The low-quality internet connection was especially a prominent factor in the occurrence of these problems. As online education was dependent solely on technological opportunities, the PSTs with low access to high-quality technology experienced a decrease in their academic engagement during the online process. A participant shared the struggles with the technological obstacles as *“My internet connection was very low quality. My computer was also very old and very slow. There were times when my computer screen went dark. ... I was distracted from the lesson a little bit, after all”* (PST5).

Some participants stated that the instructors' inconsiderate attitudes towards the students and their continued traditional teaching style led to a decrease in the PST' academic engagement. In general, the instructors who did not make changes in their teaching style and continued using the same old methods were criticized. One of the PSTs mentioned that *“Sometimes the online lessons were very boring. If it was too monotonous, the engagement would naturally decrease”* (PST3).

Many participants stated that not being in the school environment was decreasing their online academic engagement. The problems resulting from the family household were the most frequently mentioned reason of it. In relation to this, it was stated that *“I think being in the family home is also a separate source of stress for many students during online education”* (PST5).

The participants also emphasized the negative effect of mental and psychological difficulties they experienced during online education due to the pandemic on their academic engagement. These mental and psychological challenges were claimed to lower their interest, which constrained their academic engagement. A related statement of a PST is that *“It was a difficult period from a mental point of view. So, my interest was also lower, I think, compared to face-to-face education. I had low academic engagement during the online period”* (PST2).

4.3. Suggestions regarding Increasing Academic Engagement during Online Education

In the last section of the interviews, the participant PSTs provided several suggestions to improve online academic engagement based on their experiences during the COVID-19 online education process. Under the theme of suggestions, three sub-themes emerged as varying methods, common course policy, and student involvement in the process (see Table 3 below).

4.1. Varying Methods

Nearly all of the participants complained about the teaching methods and styles of their instructors during online education. Therefore, when they were asked to provide suggestions for the improvement of online academic engagement, they mostly advised instructors to improve their choices of instructional processes. One of these suggestions was related to making use of diverse methods consistent with online learning.

According to the PSTs, not sticking to traditional methods but using different methods appropriate to online education was put forward as one of the important factors that would lead to an increase in online academic engagement. To illustrate, a related quotation is provided below:

Including more various methods could also increase academic engagement during online education because sitting in a chair and having block lessons for 50 minutes sometimes can be difficult to sit in classes that last longer and look at a blank screen. But that diversity, you know, a sudden change of subject, can engage a student in the activity (PST2).

Table 3.

Themes and Sub-themes regarding Suggestions to Increase Online Academic Engagement

Themes	Sub-themes
3. Suggestions	3.1. Varying methods 3.2. Common course policy 3.3. Student involvement in the process

4.2. Common Course Policy

During the interviews, most PSTs stated that they had difficulties in adapting to the online education process because of the varying course policies of different instructors. Therefore, some of the participants stated that settling upon a common course policy would increase their academic engagement during online education. A sample statement is as follows:

I think that instructors should have a common course policy during online education because some of them are too strict, for example, for turning on our cameras and some of them are not strict at all. Indeed, I don't mean that they should not be strict. Instead, there should be a common policy and the students should apply it to their education (PST4).

4.3. Student Involvement in the Process

Most PSTs made suggestions regarding the active involvement of students in the online education processes. According to the PSTs, the decision-making process should not be left to the instructor alone; instead, the students should be involved in the decisions about how to conduct lessons during the online process. A PST stated the following regarding this:

I was very comfortable with one of my professors during online education because she gave us confidence. She explained to us how and why we should decide on what we want to know. When you give students that comfort, that freedom, I think we would be definitely more comfortable focusing on what we want and what we do not want. Instructors should leave more of the responsibility to us (PST1).

5. Discussion and Implications

This qualitative study was designed to explore the academic engagement experiences of a sample of pre-service teachers during the online education period resulting from the COVID-19 pandemic. The findings of the present study were revealed under three themes as experiences during online education, factors

affecting academic engagement, and suggestions to increase academic engagement of the PSTs during online education. The results of the study relate to social engagement, cognitive engagement, behavioral engagement, collaborative engagement, and emotional engagement components of the online engagement framework for higher education proposed by Redmond et al. (2018).

The two major sub-themes reached for the first theme were facilitating experiences and drawbacks of the process, and some of the participants had opinions concerning both, which goes hand in hand with the findings of Erarslan and Arslan (2019). This duality implies that online education can involve both positive and negative aspects for pre-service teachers taken together with several other circumstances (Altuntaş-Yılmaz, 2020). In line with the present study, Seyhan (2021) also found out that pre-service teachers experienced difficulties in distance education during the pandemic due to reasons, such as access to the internet, material supply, providing a learning environment, learning difficulties, and so on whereas it was also revealed that the distance education process had benefits, such as learning independent of time and space, research, reading and developing learning skills.

The participants of the current study mentioned the inexperience of instructors and distracting home environment among the drawbacks of the process and the constraints that decreased their engagement during the online education process, which regards the social engagement component of the online engagement framework for higher education (Redmond et al., 2018). Özer and Turan (2021) similarly found that instructors' lack of experience in distance education was one of the negative aspects of online education during COVID-19 process. The present study was carried out while the online education process was continuing, and majority of instructors had to handle online education for the first time. Considering this fact, it was expectable that instructors did not have much experience in teaching online and advanced skills in using educational technologies, which led students to have negative experiences during online education. On the other hand, regarding the home environment, Özdoğan and Berkant (2020) revealed contrasting findings with the present study as they found that the home environment was considered as an advantage of the online education process.

The participants talked about their experiences during COVID-19 online education process, such as lacking classroom interactivity, socialization, and motivation, and they also highlighted how those experiences negatively affected their academic engagement levels, which is parallel to the findings of Özüdoğru (2021). Özdoğan and Berkant (2020) also reached similar findings that the most mentioned disadvantages of distance education were related to loss of motivation, lack of measurement and evaluation, inadequate resources such as internet and computers, inequality of opportunity in education, inadequate communication and interaction, technical problems, inadequate socialization, and being unprepared for the distance education process. Although Pittaway and Moss (2014) previously found that pre-service teachers' academic engagement had risen during the online education process, these contradictory findings might have resulted from the context of the COVID-19 pandemic that has greatly affected the educational experiences of individuals as well as all other aspects of life.

It was revealed in previous studies that pre-service teachers find online education as time saving (Görgülü Arı & Hayır Kanat, 2020; Seyhan, 2021). Similarly, the participants of the present study highlighted the time efficiency advantage of the online education process in that they did not waste time for commuting and getting prepared. Thus, these have contributed to their behavioral engagement during this process.

In the current study, pre-service teachers mentioned their concentration problems and autonomous learning advantage during the online education process, which relates to their cognitive engagement. In line with this finding, Seyhan (2021) similarly found that while pre-service teachers had concentration problems during online education, it was also claimed that distance education allows students to learn at their own pace and supports individual and independent learning.

In the present study, technological obstacles were mentioned among the constraints that decreased the engagement of the participant pre-service teachers. Adak and Koç (2022) found similar findings in their

study in which they examined the views of teachers on online education. The literature supported the findings of the present study that the educational infrastructure of universities and the knowledge and equipment of instructors and students were not sufficient for distance education (Keskin et al., 2021; Sarı, 2020).

The results of the current study also referred to the collaborative engagement of the participants during online education with instructor-related results. That means, while the participants mentioned the facilitative instructors as a factor that increased their engagement, they considered the attitudes and teaching styles of instructors as a decreasing factor in their engagement. This shows the importance of instructors and their relationship with pre-service teachers during the online education process as there is a great need for collaboration to handle the process effectively. These findings are in line with the study of Özer and Turan (2021) in which they found that the pre-service teachers expected the instructors to be understanding and interactive during the online education process. Moreover, it was revealed that pre-service teachers could not interact with their peers and instructors during online education, which might have led them to consider that online education decreases the quality of education (Özer & Turan, 2021).

The current study revealed that the online education process was considered as a stressful process by the pre-service teachers and that there was a lack of motivation, which hindered the emotional engagement of the pre-service teachers during online education. These findings are parallel to the related literature (e.g., Özdoğan & Berkant, 2020; Özer & Turan, 2021; Seyhan, 2021). Since the urgent switch to online education was unfamiliar to all shareholders of education, this unfamiliarity might have caused stress for individuals. Also, the lack of interaction with their peers and instructors might have caused pre-service teachers to feel isolated and unmotivated for education.

The results of the present study may lead to several implications for research and practice. First, the online engagement framework for higher education (Redmond et al., 2018) could be utilized in future research to see the similarities and differences regarding the engagement of university students during online education. Also, the engagement of university students in post-pandemic online education could be investigated in future studies concerning the online engagement framework for higher education (Redmond et al., 2018). For practice, the results obtained from this study are believed to be beneficial for future actions in terms of effectively designing and carrying out online education processes. For this, the engagement-decreasing factors revealed in the present study should be considered thoroughly while designing and implementing online education at the university level to maximize the effectiveness of learning and teaching.

It was revealed by Çınar et al. (2021) that success in e-learning was found to be closely related to readiness, and teachers with e-learning experience were found to adapt to e-learning more quickly. In line with this, pre-service teachers need to engage in effective learning processes during online education so that they can increase their effectiveness in online education as teachers in the future. Moreover, it is essential to keep track of the students' psychological conditions regularly and to build intimate relationships with them so that they do not feel isolated in such unfamiliar and stressful processes, which in turn would decrease the effectiveness of education.

6. Limitations

The limitations of the current study might be beneficial to be taken into account when evaluating the findings. First, the data were collected through interviews, which are viewed as time-consuming, prone to interviewer bias, and potentially inconvenient for respondents (Cohen et al., 2007). Moreover, interviewee fatigue has the potential to endanger the interviews. Also, the confidentiality of participants in interviews may be challenging. These may apply to any study that uses interviews to gather data (Cohen et al., 2007). As the data were collected through interviews only in the present study, these issues may have caused a restriction for this study as well by preventing participants from sharing as much as they might have to offer a more thorough understanding of the phenomenon of interest. In addition, the participants of the current study consist of pre-service teachers from the FLE department. Thus, future studies that are going to be

conducted with more varied and comprehensive samples might present comparatively more extensive results.

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