

Emergency Remote Teaching from the Perspective of Pre-service Teachers: An Evaluation through Digital Stories

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Abstract

The aim of this study was to determine the perspectives of pre-service teachers regarding the emergency remote teaching that took place with the coronavirus disease 2019 (COVID-19) pandemic. The feelings, thoughts and experiences of the pre-service teachers were examined through digital stories prepared by themselves. This case study was carried out within the scope of the Multimedia Design and Production course in the spring semester of the 2019-2020 academic year. The participants consist of 35 third- and fourth-year pre-service teachers who were studying in the Faculty of Education, Department of Computer Education and Instructional Technologies. The data of the research were digital stories prepared by the participants and their responses to an online questionnaire form consisting of open-ended questions. The data were analyzed by content analysis method and collected under four themes: pre-service teachers' expectations for the distance learning process and their feelings at the beginning of the process, pre-service teachers access to the learning materials, technology and faculty members during the emergency remote teaching, pre-service teachers' self-regulation skills during the emergency remote teaching, and pre-service teachers' mood during the emergency remote teaching.

Keywords: Emergency Remote Teaching; Digital Storytelling, Pre-service Teachers, Distance Learning

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Introduction

With the coronavirus disease 2019 (COVID-19) pandemic in March, schools across the world had to cancel on-campus classes, requiring students to take classes online (UNESCO, 2020a). This happened in a short period of time and affected millions of students, teachers, and parents (UNESCO, 2020b). According to UNESCO over 100 countries have implemented nationwide closures (UNESCO, 2020a), the school closures in Turkey began in mid-March 2020 (16 March) and continued for the rest of the school year for 2020. The school closures were considered as a crucial step to stop the transmission of the virus (Abdulmir & Hafidh, 2020). Many instructors found themselves delivering their courses in an online environment, in which they had never experienced before (UNESCO, 2020a). As the instructors, the students also found themselves in online environment taking their face-to-face courses. While the distance education was not a new term in the field of education, the coronavirus disease 2019 (COVID-19) pandemic situation was different as it came with urgency and there was anxiety about the unknown situation and future that the disease brought.

The situation was different from a well-planned online learning experience as it was unexpected and unprepared for all instructors, students, and parents (Hodges et al., 2020). The situation was called as emergency remote teaching (Hodges et al., 2020) which was formed in response to the pandemic. As Hodges et al. (2020) described “the primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis” (Hodges et al., 2020, p. 6). While a well-planned online course creates flexible and alternative learning environment for students, this new situation with the emergency remote teaching caused an obligation for students to take all of their courses online (Bozkurt & Sharma, 2020).

As primary and secondary schools, postsecondary institutions in Turkey started emergency remote teaching on March 16, 2020 and continued for the rest of the semester. This happened in the middle of a teaching semester and the education and assessments were completed remotely. During this period, instructors and students had to deal with new technological tools, technical issues brought by those new tools and Internet, and feelings of isolation. Besides educational issues, some of the people had to deal with health and economic concerns as the future was unknown (Ferguson et al., 2020). In this new situation, the education was affected by instructors and students’ affective mood (Green et al., 2020).

Even in a normal online class, students become easily isolated and they need to feel presence of the instructor and the other students as well (Garrison, 2009). However, in this emergency situation

they are exposed to many lectures, live sessions, videos, readings, projects, e-mails, discussions, and exams. As cautioned by Bozkurt and Sharma (2020), “when things go back to normal, people will not remember the educational content delivered, but they will remember how they felt, how we cared for them, and how we supported them” (p. 3). While everybody rushed into emergency remote teaching during the pandemic, in this study, we asked students to reflect on their experiences in this new situation through digital stories.

Digital Storytelling

Stories and storytelling have been used for teaching and learning purposes in education. Digital storytelling is the tool that use computer-based tools to tell stories. They usually contain images, text, audio, video and music and shares a point of view (Lowenthal, 2009). Although it is expressed differently in different sources, an ideal digital story should have a duration of less than five minutes and approximately 2-3 minutes (Lambert, 2013). It is appropriate for a digital story to consist of an average of 15 pictures and a script of approximately 250-300 words (Gravestock & Jenkins, 2009). The use of digital stories is described as "an effective instructional tool for teachers" and "an effective learning tool for students" (Robin, 2006; p. 3-4). Digital storytelling may allow students and teachers to experience technology in a meaningful way (Erbaş, 2020).

One of the important features of digital storytelling applications is that students become active learners who apply the scenarios during the process of creating and transferring them to the digital environment, rather than being passive listeners in the classroom. Digital storytelling is considered as a valuable teaching tool that supports learning in educational environments, encourages collaboration, improves decision-making processes, brings together formal and informal learning processes, and ensures active participation of students in the learning process (Clarke & Adam, 2011; Robin, 2008).

Purpose of the Study

The aim of this study is to determine pre-service teachers' feelings, thoughts and experiences about the emergency remote teaching that took place during the coronavirus disease 2019 (COVID-19) pandemic. It was aimed to reveal the meanings that the participants attributed to emergency remote teaching with their experiences and perspectives. Digital storytelling is used as a tool to help students reflect on their emergency remote teaching experiences.

Method

This study, which was conducted to determine the pre-service teachers' feelings, thoughts and experiences about the emergency remote teaching that took place during the coronavirus disease 2019 (COVID-19) pandemic, was designed as a case study, which is one of the qualitative research approaches. The qualitative case study is the study of a current phenomenon within its real-life framework; situations are examined in a multifaceted, systematic and in-depth manner. It is a research

method in which situational themes are defined and in-depth exploration of a specific system (e.g., an activity, event, process or individuals) (Creswell & Poth, 2016).

Participants of the Study

The research was carried out within the scope of the multimedia design and production course in the spring semester of the 2019-2020 academic year, taught by the second researcher. The study group consists of 35 third and fourth year (22 male, 13 female) pre-service teachers who are studying at a public university in Turkey. The pre-service teachers were students at Computer and Instructional Technologies Education Department and attending the multimedia design and production course.

To achieve the aim of the study and answer the research questions, the participants who could provide the detailed information and were willing to participate were selected (Bernard, 2002; Creswell & Plano Clark, 2011). This group of pre-service teachers were selected because they were taking several different online courses that can be considered as emergency remote teaching during the spring semester of the 2019-2020 academic year. In addition, they were the students who were directly influenced by the coronavirus disease 2019 (COVID-19) pandemic as their face-to-face classes converted to online in one night.

Data Collection

In this study, the pre-service teachers were asked to narrate their thoughts about the distance learning process during the pandemic period in a humorous way. The stories were required in the digital format as the mid-term project. Since the meaning each student will attach to this process will be different from each other, they were asked to prepare the digital stories individually. They were expected to complete the paragraph starting with "Being a student in distance education..." with their stories. It was stated that they should take into consideration the principles of multimedia design, vocalize their videos as much as possible, and add text as well. The preservice teachers prepared videos that are approximately two minutes by using animated video tools such as Animatron, Renderforest, Biteable, Vyond, Powtoon and other video editing tools.

In addition to the digital stories, the pre-service teachers were asked to fill out an open-ended questionnaire which consists of six questions. The purpose of the questionnaire was to determine the pre-service teachers' views on the emergency remote teaching during the COVID-19 pandemic. Some of the questions in the open-ended questionnaire form are as follows: '*Write down your point of view on distance education before taking a distance course this semester.*' '*Think about your distance education experience and write down its positive aspects.*' '*Think about your distance education experience and write down its negative aspects.*'

Data Analysis

The data were analyzed in four stages: coding of the data, finding themes, arranging the codes and themes, defining and interpreting the findings (Yıldırım & Şimşek, 2016). Within the scope of the study, firstly, digital stories prepared by the pre-service teachers were transcribed. The coding process was carried out according to the statements of the pre-service teachers in the digital stories. The similarities and differences of the codes that emerged were determined, and themes were formed by bringing together the codes that were related to each other. While coding, numbers were used together with the concepts, it was aimed to create a hierarchical relationship between the codes. It was paid attention to whether the data under the emerging theme constitute a meaningful whole, and the themes and sub-themes were organized considering the theoretical framework. During the content analysis, data were described according to themes and codes, and direct quotations were included. Pseudonyms were used to ensure anonymity and preserve the identity of the pre-service teachers.

Validity and Reliability of the Study

Validity of the research is related to the correctness of the research results and reliability of the research is related to the repeatability of the research results (Yıldırım & Şimşek, 2016). The study group, data collection tools, and analysis of the data were defined in detail in order to ensure external validity in the study. The positive and negative expressions of the participants were also included, and care was taken to present the findings objectively by supporting them with quotations. For internal validity, attention has been paid to the fact that the research findings are consistent and meaningful in themselves and that the revealed categories constitute a whole. In order to ensure external reliability in the research, the role of the researchers, the research process, the participants, the data collection tool and the analysis of the data were explained in detail. In order to ensure internal reliability in the research, the findings were conveyed without any comments and supported with direct quotations. Qualitative data were quantified in order to reduce bias and make comparisons between categories. After these processes, the words most frequently used by the students were visualized with the word cloud. The coding of the data and the creation of the themes were made by both researchers with the 90% researcher reliability score. Then, the findings were presented according to these themes.

Findings

In this section, pre-service teachers' expectations for the distance learning process and their feelings at the beginning of the process, teacher candidates' access to the content, technology and lecturers, pre-service teachers' self-regulation skills and pre-service teachers' feelings in the emergency remote teaching process are given under headings, respectively.

The expectations of pre-service teachers for the distance learning process and their feelings at the beginning of the process

When digital stories are analyzed, one of the prominent themes is the pre-service teachers' expectations for the distance learning process. The meanings that teacher candidates attribute to distance learning and their dreams about the distance learning process and their feelings at the beginning of the process are included under this heading. The expectations of the participants for the distance learning process are given in Table 1 in categories.

Table 1. Pre-service teachers' expectations about the distance learning process

Categories	Frequency	Excerpts from the Digital Stories
Convenience	25	<p><i>'I sleep and wake up whenever I want. "I don't have to worry about going to school, I don't have to worry about catching up to class, most importantly, I don't try to get on buses that pass four or five times and overly crowded"' (S12, Digital story)</i></p> <p><i>'You don't have to worry about catching up to the 8 o'clock class. There are no painful wooden benches in those long classes. When you are hungry, there is no need to wait for the teacher to give a break... No waiting for empty metro, empty bus" (S23, Digital story)</i></p> <p><i>'Now I can eat while I am listening to the teacher" (S14, Digital story)</i></p>
Spare time activities	11	<p><i>'The time we spend going to the school is up to us, to have opportunities, to learn new hobbies' (S17, Digital story)</i></p> <p><i>'There would be a lot of spare time in distance education. I can paint, do sports, read books" (S27, Digital story)</i></p> <p><i>'I will do lots of things. I can learn to do yoga. I can play sports and lose weight. I can meditate and relax a little bit. I will have plenty of time to learn new languages. These are the books I plan to read' (S29, Digital story)</i></p>
Feeling of vacation	11	<p><i>'I dreamed of a life without school' (S30, Digital story)</i></p>
Affordability	3	<p><i>'You do not need tea money, travel money, food money. You do not need to worry about token in bus card' (S23, Digital story)</i></p>

When the digital stories of the pre-service teachers were examined, it was found that they mostly describe the concept of comfort regarding the distance learning process. Regarding convenience, it was stated that the home environment would be more comfortable than the classroom environment in the learning process. In this context, the pre-service teachers stated that the issues with getting up early in the morning and transportation issues. Most of the participants stated that they could attend their classes in their comfortable seats at home. Another situation expressed under the convenience category is the comfort of doing extracurricular activities during the lesson in the distance learning process. Under this sub-category, participants stated that they could do things such as eating and drinking, playing computer games, talking on the phone, texting, and even cooking. The pre-service teachers thought that the distance education process that took place during the COVID-19

pandemic would be easy and comfortable. Two of the participants expressed their views as follows. "I thought distance education could be easier and more comfortable" (S1, Questionnaire) "I thought it would be easier than normal education" (S4, Questionnaire). With the start of the distance learning process, the pre-service teachers thought that they would have a lot sparer time, they would be able to rest during distance learning, and they would spend time for activities such as doing sports, reading books, and acquiring new hobbies.

With the announcement made by Council of Higher Education (2020) that education at all universities was suspended, most of the pre-service teachers in this study made a perception that universities would be on a vacation for the rest of the semester. In addition, a few participants stated that the distance education process would be economical since there would be no transportation and food expenses that they usually spend when they have face-to-face classes. Figure 1 shows sample screenshots from the digital stories of pre-service teachers.



Figure 1. Sample screenshots from digital stories about pre-service teachers' expectations/thoughts at the beginning of the distance learning process

With the interruption of face-to-face education at universities, the students returned to their hometowns. With this unexpected change, the expectation of vacation, the absence of the obligation to go to school, and the expectation that they will be able to continue their education at home comfortably caused the participants to express the feeling of happiness ($f = 16$) in their digital stories. In addition, only three of the participants who will graduate at the end of the semester stated that they got worried because they were afraid if the schools get delayed. Lastly, two pre-service teachers stated that they were sorry for being separated from their friends.

The pre-service teachers access to the learning materials, technology and faculty members during the emergency remote teaching

When the digital stories of the pre-service teachers are examined, it is found that they mostly expressed their opinions about access to materials, technology, and faculty members. The descriptions of the participants about the access status during the emergency remote teaching are included in three categories in Table 2.

Table 2. Pre-service teachers access to learning materials, technology and faculty

Categories	Sub-categories	Frequency	Frequency in total
Learning materials	Time and space flexibility	15	51
	Synchronous and asynchronous courses	12	
	Too much homework	24	
Technology	Problem connecting to the learning management system	10	35
	Inequality in access to technology	6	
	Internet access problem	6	
	Technical difficulties in synchronous sessions	5	
	Low bandwidth and slowness	4	
	LMS related issues	4	
Faculty members	Interest and support	5	9
	Inability to get instant feedback	4	

In their stories, the pre-service teachers stated that they could access the course content whenever they want, from anywhere, and with any device they wanted. The pre-service teachers stated that having both synchronous and asynchronous sessions of the lesson was a positive aspect of distance learning. The other positive aspect reported by the pre-service teachers was the ability to watch the recorded live sessions whenever they want. Regarding this, two of the participants expressed their opinions as follows: *“It was very nice to have the chance to attend classes anytime, anywhere, regardless of time or place. It was a good opportunity to be at home, study at home and have the chance to watch the recorded lessons again”* (S3, Questionnaire). *“The positive aspects for me are that I can access the course materials with any device I want and follow the courses over a long period of time”* (S6, Questionnaire).

The pre-service teachers also mentioned that the learning process was exhausting for them during the emergency remote teaching as they had to do too much work; such as exams, homework, and projects. One of the participants’ commented on this: *“Every teacher thinks that we have too much time because we are at home or they think we only take their own classes; thus, they made too many exams and gave homework. I know that I have been doing homework for a month, unceasingly from morning to night”* (S3, Questionnaire). On the other hand, another participant evaluated the homework aspect from a positive point of view: *“While it is exhausting, I think I gain more knowledge through trial and error by researching the topic. In other words, I think since you do and deal with everything yourself, you have multi-faceted learning and permanent knowledge”* (S2, Questionnaire). Sample screenshots of digital stories about the exhausting theme are shown in Figure 2.



Figure 2. Sample screenshots of digital stories related to homework during the emergency remote teaching

Another issue that pre-service teachers mentioned in their digital stories is access to technology. Under this category, the pre-service teachers stated that they mostly experienced problems with connecting to the learning management system (LMS). However, the lack of access to the internet, low bandwidth and slowness, disconnection during the live sessions can be listed as Internet related problems. In addition, due to the fact that some of the students do not have the necessary technological devices, it is one of the emphasized issues that there is inequality in accessing to technology. Some of the participants described their difficulties as follows: *“Because we live in the village, I had issues with Internet connection. After I do my homework, I walk around the roof at midnight to send it. Even I went to the city center which is 80 km away to do my homework that cannot be done without the Internet”* (S2, Questionnaire) *“I wish everyone had a microphone, a camera, a strong Internet connection. And then, the platform we connect can handle this without any problems”* (S10, Questionnaire). Sample screenshots of the participants' reported problems related to technology access during the emergency remote teaching are shown in Figure 3.



Figure 3. Sample screenshots of digital stories about technology access during the emergency remote teaching

Another issue emphasized by the pre-service teachers is that when an assignment is uploaded to the learning management system (LMS), they do not receive notification by e-mail or message. The participant S3 explains this situation as follows: *“Nothing comes to us as a notification, except announcements from LMS. For example, when the homework is opened, we do not receive a notification. That's why we had to go into LMS almost every hour to check it ”* (S3, Questionnaire).

Finally, under the category of access, the participants expressed both positive and negative opinions regarding access to the faculty member. Two of the participants expressed their opinions as follows, regarding the interest and support of the faculty member: *“In some of my lessons, I can say that our professors were very helpful and explanatory, they were of interest in situations that we do not understand the assignments”* (S7, Questionnaire). *“Some professors pay one to one attention when needed”* (S10, Questionnaire). However, some of the participants stated that they had difficulties in getting immediate feedback from the instructor. One of the participants stated his opinion: *“...Again, late answers to the questions, which I asked to my friends and the instructor, caused time management issues for me”* (S2, Questionnaire).

Pre-service Teachers' Self-Regulation Skills during the Emergency Remote Teaching

One of the themes that emerged as a result of the analysis of digital stories in this study was the self-regulation skills of pre-service teachers. The categories that emerged according to the statements of the pre-service teachers are included in Table 3.

Table 3. Pre-service Teachers' Self-Regulation Skills during the Emergency Remote Teaching

Categories	Sub-categories	Frequency	Frequency in total
Attention and persistence	Pretending to attend the live session	5	22
	Getting busy with other things	5	
	Being confused	5	
	Getting distracted	4	
	Losing motivation	3	
Time management	Loitering	7	18
	Getting up late	4	
	No more time concept	4	
	Procrastinating	3	
Regulation of the working environment	Sound and noisy environment	14	17
	The lack of a specific working environment	3	
Help seeking	Teaching staff	4	7
	Friends	3	

Topics related to self-regulation skills expressed in digital stories were grouped into three categories. The pre-service teachers processed the following sub-categories under the attention and persistence category: they pretended to attend the live session, but they got busy with other things such as messaging with friends, playing games, sleeping, cooking, etc. On the other hand, they got distracted, especially due to long class sessions and videos, lost motivation due to technical problems, and difficulties in understanding some content and assignments.

The pre-service teachers stated that unlike face-to-face education in distance education, students cannot use their time efficiently due to the fact that they can follow the lessons whenever they want, and the home environment is too much comfortable. The pre-service teachers stated that they use the time they spend for transportation to the university campus to leisure activities. For example, they got busy with activities such as watching television and playing computer games at home, instead of using the time efficiently. They also stated that they were confused about the concept of time and day due to being at home all the time. Sample screenshots of the problems experienced by the pre-service teachers regarding time management during the emergency remote teaching are shown in Figure 4.



Figure 4. Sample screenshots of time management during the emergency remote teaching

Under the category of organization of the work environment; the pre-service teachers complained that they could not find a suitable working environment. One of the participants expressed his opinion as follows. *“Lack of finding a quite environment to listen the class. If I need to give an example from myself: I have six siblings, my parents, and my grandmother living in the house. Moreover, my uncles and aunts come home all the time”* (S2, Questionnaire). The screenshots of the digital story prepared by one of the participants about the problems related to the working environment are shown in Figure 6.



Figure 5. Problems in organizing the working environment during the emergency remote teaching

Another category under the theme of self-regulation skills is the behavior of the participants to ask for help from the instructor and other students. Some of the participants stated that they had difficulties in getting immediate feedback from their instructor or friends in understanding the content given. For example, A2 expressed this: *“There was no friend to ask for help.”* It is found that the participants tried to communicate with their instructor by sending e-mails related to the subjects they did not understand and technical problems they experienced. In addition, they usually communicated with their friends by phone.

Mood of Pre-service Teachers during the Emergency Remote Teaching

The mood of the participants in the digital stories is the last theme that emerged in the study. The emotions expressed by the pre-service teachers in their digital stories are shown in Figure 6.

The first theme that emerges in the study is pre-service teachers' expectations for the distance learning process and their feelings at the beginning of the process. According to the results of the study, the interruption of education on March 16, 2020 first caused the perception of vacation among teacher candidates. Later, with the announcement by Council of Higher Education (2020) that the teaching process will continue online at universities as of March 23, 2020, the participants expected that the emergency distance learning process would pass easily and comfortably. At the beginning of the process, the pre-service teachers reported that they expected to have a lot of time for spare time activities such as reading books, doing sports, learning languages. In addition, at the very beginning, the mood of the pre-service teachers was generally positive. Similarly, in the research conducted by Erkut (2020), it was determined that the first reactions of the students were positive because they continued their education at their homes and staying at home reduced the risk of infection and they did not have to spend hours in traffic every day. However, emergency remote teaching situation can be a negative experience on the students as they were caught unexpected and unprepared (Hodges et al. 2020). In addition, the side effects of emergency remote teaching on learning in the long term is unknown and studies are needed to evaluate those effects.

The second theme emerged in the study is pre-service teachers access to the learning materials, technology and faculty members during the emergency remote teaching. The fact that the classes were held both synchronously and asynchronously, and the course contents accessed by anywhere and anytime stand out as positive features of the access category. Similar to Ukata and Onuekwa's (2020) study, having access to learning materials anytime and anywhere and having flexibility were listed as the most favorable features of the emergency remote teaching. In the study conducted by Serçemeli and Kurnaz (2020), the participants expressed positive opinions related to fact that the video recordings could be watched again, having flexible learning opportunities and saving time. Similarly, the pre-service teachers found video recordings as a positive feature of distance learning. The issue that evaluated negatively was related to homework given in this process. Similarly, in the study conducted by Blizak and colleagues (2020), one of the most complained topics by students was the number of homework assignments. In another study, it is found that students do not want to experience exam stress and homework anxiety even if they want to follow the lessons with distance education during the pandemic period (Aktaş et al., 2020).

Another category under this theme is the access status of the participants to technology. During the emergency remote teaching, it was revealed that students mostly experienced problems with Internet access during the distance education (Blizak et al., 2020; Karakuş et al., 2020; Serçemeli & Kurnaz, 2020). Digital inequalities already existed, but the COVID-19 crisis is exacerbating them dramatically (Beaunoyer et al., 2020). In research conducted by Karadağ and Yücel (2020), they found only 63% of students had Internet connection at home in Turkey, 66% of them have a computer

or tablet, and 23% were unable to maintain their distance education. In this particular study, technical problems experienced by students especially in exams and live class sessions caused distraction, anxiety, concentration problems, and motivation lose.

Regarding the category of access to faculty members, it was revealed that some of the participants were satisfied with the attention and support given by the instructors, while some of them had difficulty in getting immediate feedback. Similarly, Karatepe et al., (2020) pointed out students have trouble communicating with their faculty and friends in online classes. In Blizak et al. (2020) study, the inability to reach the instructor and the feeling of social isolation were identified as negative aspects by students in distance education. Thus, it is suggested that designing the learning process in a way that helps the learner to feel the instructor and peers' presence would satisfy students and contribute to their learning.

One of the themes that emerged as a result of the analysis of digital stories in this study was the self-regulation skills of pre-service teachers. Self-regulation skills of the participants were grouped into four categories as attention and persistence, time management and regulation of the work environment, and help seeking. It is observed that the participants experienced distraction during both synchronous and asynchronous lessons. Similarly, Karakuş et al. (2020) found students to have low motivation in distance education courses during the pandemic period. It is observed that the inherent flexibility of distance education causes students to postpone their studies and they keep busy with other activities during the day. The fact that the participants do not have their own study rooms and the home environment is not suitable for listening/studying can be expressed as another factor that causes problems. Keskin and Özer Kaya (2020) states that during the pandemic process, the time spent by students in front of social media and television nearly doubled. The negative emotions that the students experience due to the pandemic and the feeling of isolation might cause them to move away from the lesson and postpone their tasks. This would be closely related to the academic procrastination, which was found to negatively impact learning performance of students (Michinov et al., 2011).

The last theme in the study is the emotions that teacher candidates experienced during the emergency remote teaching. The most expressed emotion in the stories is the feeling of pressure. The technical problems experienced by the pre-service teachers and the assignments might cause the process to be exhausting for them. The flexibility of distance education and the provision of both synchronous and asynchronous lessons in this process are the dimensions that most satisfy the participants. It is found that the pre-service teachers also reflected feelings of longing, loneliness, isolation, and boredom. Limited social change as a result of the COVID-19 outbreak might have fed such negative emotions. There is evidence that social isolation can negatively influence people by triggering stress and reducing well-being (Miller, 2020). In a study conducted by Cığerci (2020), it

was concluded that the COVID-19 pandemic caused students to worry, lose motivation and get bored because of lockdown.

Emergency remote teaching caught us unexpected and unprepared, this also effected the perspective of pre-service teachers in this particular study. While the side effects of emergency remote teaching on learning in the long term is unknown, there is a need for more studies on this subject. Considering the perspective of students who take those online courses, the design of online learning environments can be considered as crucial. Designing online learning environments in a way that increase student engagement and motivation would positively change the students' perspectives toward online learning. In addition, while the students were socially disconnected from their peers and instructors during the COVID-19 outbreak, supporting their social and emotional needs became more important.

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