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It is time to restructure initial teacher education in Turkey due to the covid-19 pandemic

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Highlights

- This research can contribute to the existing literature by revealing the opinions of preservice teachers regarding their emergency remote teaching experience during the COVID-19 pandemic.
- This research discusses the roadmap of Turkey for universities and teacher education programs at the time of COVID-19.
- After the COVID-19 pandemic, the majority of the pre-service teachers suggested revision in the curriculum considering blended learning.

Article Info: Research Article

Keywords: *COVID-19 pandemic, Initial teacher education, Online teaching, Preservice teachers, Roadmap of Turkey*

Abstract

This study aimed to describe the roadmap of Turkey for universities and teacher education programs at the time of the COVID-19 pandemic and to investigate the rapid online learning experiences and preferences of preservice teachers throughout the COVID-19 pandemic. The participants of this case study were preservice teachers who enrolled in various departments in the faculty of education in different regions of Turkey. The data were collected via an online self-reflection form. The participants reported a preference for face-to-face learning. They also reflected that online learning is more effective than video and presentation. The majority of the pre-service teachers suggested revision in the curriculum regarding blended learning. The findings of this study can be used either to improve preservice teacher professional development or restructure the programs around the world for the future.

1. Introduction

With the arrival of the COVID-19 pandemic in Turkey and other countries, a renewal in every aspect of human life is necessary. While struggling with the pandemic, some strategies should be followed in education to get over this period with the least risk. In reaction to the COVID-19 outbreak, schools and universities were closed in approximately 190 countries all over the world (UNESCO, 2020). As a consequence of this, education systems all around the world have been confronted with an unprecedented challenge following the closure of universities in an effort to restrict the spread of COVID-19 as part of efforts to improve public health. Due to the fact that more than 1.6 billion students across all educational levels have been affected by this problem, there has been a rapid resurgence in the popularity of online teaching and homeschooling (UNESCO, 2020). The abruptness of the transition and the experiences of the students, teachers, and parents during this time could more accurately be described as emergency remote teaching since it is a temporary transition of teaching in crisis rather than homeschooling with pre-planning experiences (Hodges et al., 2020). Thus, it is necessary to restructure the policies of education in order to adapt education according to changing conditions (UNESCO Futures of Education, 2020).

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In the rapid transition to the online teaching process, a major challenge faced by all societies is digital transformation. Digital transformation is defined as the process of combining information processing, communication, and technology so that individuals can adapt to changes in their environment and make them better (Vial, 2019). Although all educational stakeholders are familiar with digital technology in their daily lives, the continuity of the existing education system in digital environments has led to limitations because of no preparation for the pandemic (Bozkurt & Sharma, 2020). School and university closings, expected to be short-term, take longer and required new actions in this area. Despite the fact that online education practices are not new in the world and in Turkey, researchers have emphasized for many years that teachers and teacher educators should be prepared for online and blended learning methods (Ferdig & Kennedy, 2014). However, these calls have not been taken seriously. Hereby, it has been seen the teachers and pre-service teachers are not ready to adapt to this situation (Hodges et al., 2020). Some of these difficulties include but are not limited to; listed as producing content for online environments, learning new digital tools, online pedagogy, addressing students' mental health, and attempting different pedagogical methods to address synchronous and asynchronous learning environments.

When teacher education during the time of COVID-19 pandemic was concerned, the studies focus on how the adaptations to face to face teacher education to online (Flores & Gago, 2020; Moorhouse, 2020; la Velle et al., 2020; Toquero, 2021; Zhang et al., 2020) and different teaching strategies (Ferdig & Kennedy, 2014) reported. However, there needs to be more research on the emergency online practices of different countries to develop the quality of online teaching and learning. Regarding the Covid-19 pandemic process, it was suggested that several studies should be conducted with various stakeholders in the field of educational technologies (Hamad, 2022; Pelin Yıldız, 2022). On the other hand, the studies conducted with pre-service teachers highlight some aspects of emergency remote teaching (Adedoyin & Soykan, 2020; Düzgün & Sulak, 2020; Özüdoğru, 2021; Türküresin, 2020). In the study of Yurdakal and Susar Kırmızı (2021), preservice teachers' opinions on remote online teaching during COVID-19 were examined. It was concluded that there were problems such as system and internet speed in the emergency remote teaching and so the process brought an economic burden to the candidates as it required technological tools and high-speed internet. Also, emergency remote teaching failed especially in applied courses such as drama and teaching practice. Similarly, Türküresin (2020) categorized the opinions of pre-service teachers during COVID-19 as advantages and disadvantages of emergency remote teaching. In particular, the advantages are classified into three categories as economics, repetition, and flexibility of time and space while the disadvantages are classified into six categories as inconsistent learning, measurement and evaluation problems, discipline problems, internet boredom, system problems, and lack of interaction. Thus, pre-service teachers claimed that emergency remote teaching makes it difficult to develop professional teaching skills. In this regard, pre-service teachers argued that certain phenomena, such as observation, communication, social learning, experience, eye contact, and being a role model could not be taught via remote teaching which limits their professional teaching skills. The studies conducted with pre-service teachers in other countries during the COVID-19 pandemic also provide similar results. Carrillo and Flores (2020) conducted a literature review on the topic of online teaching and learning techniques in the field of teacher education. The social, cognitive, and teaching presence of online teaching and learning activities were investigated. The researchers proposed that the issues related to belongingness, cohesiveness, an optimal level of presence by instructors and learners, interactivity, and participation categorized under social presence, collaborative and reflective practices related to concrete experience, contextualization, conceptualization, and action development categorized under the cognitive presence and also issues related to pedagogical approach, learning design and facilitation categorized under teaching presence (Carrillo & Flores, 2020). Although the importance of technology in education is always emphasized, today it is time to comply with this change rapidly.

2. Literature

2.1. Emergency Remote Teaching

Distance learning is defined as an institution-based, formal education in which the learning group is physically separated and interactive communication systems are used to communicate with students, educational resources, and instructors (Schlosser & Simonson, 2009). Both asynchronous and synchronous modes of delivery are used in the delivery of distance education (Chou, 2002). Asynchronous education refers to a form of distance learning in which students are not required to participate at a specific time and can instead attend classes whenever and wherever it is convenient for them. Synchronous education refers to a form of distance learning in which students are required to participate at the same time. On the other hand, emergency remote teaching is defined as distance education carried out during the pandemic period is the temporary transfer of face-to-face education to the technology environment in a crisis (Hodges et al., 2020).

In this particular circumstance such as COVID-19, students had a responsibility to participate in remote teaching due to an unexpected circumstance, but students who participated in well-planned distance learning had a more flexible and alternate learning environment (Bozkurt & Sharma, 2020). Both the curriculum and the course materials for distance education are different from emergency remote teaching. The approach in which students are participating in the process is another crucial distinction to highlight. Emergency distance education is not an option but a necessity; in other words, it is a situation that needs to be approached with different priorities and strategies (Bozkurt, 2020). Hence, distance education always offers learners alternative and flexible learning environments, but emergency remote teaching is not an option but a necessity.

2.2. The Roadmap of Higher Education in Turkey at the time of COVID-19

The compulsory transition to online education during the COVID-19 pandemic has prompted Higher Education institutions in Turkey to make some efforts to adapt. Accordingly, the roadmaps implemented by the Turkish Council of Higher Education (CoHE), which is the constitutionally mandated governing body responsible for strategic planning as well as coordinating, supervising, and monitoring all higher institutions in Turkey are explained. In particular, different practices applied by education faculties and preservice teachers' online learning experiences and their perspectives on engagement in synchronous and asynchronous courses are investigated in this study. Some suggestions could be made based on the previous experiences in Anadolu University Open Education System, which was the major attempt in Turkey in integrating the distance education approaches in 1982 as a dual university. When the studies examined the experiences of students who enrolled in these distance education programs in Turkey, the advantages and disadvantages were highlighted. Although time, transportation, and flexibility have been identified as advantages of distance education programs, technical difficulties, a lack of communication, a lack of expertise, and an inability to obtain feedback have been identified as disadvantages of these programs (Cesur & Sağlam, 2022; Güler, 2018). Due to the critical nature of the health risks, it has been decided that the Spring Term of the 2019-2020 Academic Year will be conducted entirely through distance education and digital education techniques that can be delivered synchronously or asynchronously for all courses, as announced by the CoHE on March 26, 2020. As a result of these decisions, to carry out this period as efficiently as possible for both students and academic staff and to solve the problems that may be caused by the rapid developments, arrangements have been made in the universities' academic calendar; a variety of improvements have been made in distance education methods, and new regulations have been introduced on subjects like dropping the courses students are currently taking. In addition, the CoHE Courses program (https://yokdersleri.yok.gov.tr/#ders) was developed and made available to the public. Attractive and educational resources are combined in this resource. It was through this platform that open course resources such as books, lecture notes, and videos were offered to universities that were in need of digital course resources. There are still more than 2,000 open course materials from Turkey's top universities available

for download. These resources are available for free download to any student who desires to reach them. In response to the challenges that many academics experience when it comes to online learning and content preparation in the digital environment, the course "Introduction to Digital Education Environments" (http://akadema.anadolu.edu.tr/) has been launched online with the support of Anadolu University Open Education System.

In August and September, universities, deans, and academics scheduled theoretical lessons for students at all levels of academic programs through online learning, as well as intense academic calendars for students taking applied lessons. Although there is a great deal of flexibility in the higher education system during the COVID-19 crisis, applied lessons conducted via distance learning are becoming increasingly popular. In accordance with legal principles, the competent boards of higher education institutions decided that exams and evaluations of students could still be conducted online, taking into consideration the expected learning outcomes of the programs and any conflicts that might arise, and this decision was communicated to the universities. As a result of the decision, postgraduate programs' proficiency exams, meetings of thesis monitoring committees, and thesis defenses will all be conducted in a digital environment as long as the necessary infrastructure is in place and the examination process is recorded and can be audited. Some students who live in remote locations, on the other hand, have had difficulty gaining access to the system because of issues with internet connections and other infrastructure. To solve the problem, mobile network operators have provided free internet for students and also scholarships have been provided to the students who are attended one of the leading universities in Turkey and do not have access to the Internet. On the other hand, CoHE gave students the right to freeze enrollment without counting from the maximum period due to the COVID-19 pandemic. As a result of the work carried out in collaboration with the Ministry of National Education, and in response to the requests submitted by pre-service teachers to the council, and taking into consideration that prospective teachers participate in school experience programs in schools for a period of 5-6 weeks, it has been decided to compensate for the shortcomings in the practice-based programs through a written project such as the preparation of lessons, homework, and assignments. However, one of the foundation universities in Turkey has started a pilot online practice school experience for pre-service mathematics, language, and school counseling teachers (Erkut, 2020). Some universities have exhibited their own strategies as in the stated example.

In August 2020, the Turkish Council of Higher Education gave the authority to Education Faculty in the universities in order to develop and update their own teaching undergraduate programs considering the Turkish Qualifications Framework and Teacher Professional Qualifications set by the Ministry of National Education. Hence, this decision enables education faculties to be easily adapted to changing conditions regarding their own capabilities. On the other hand, CoHE conducted a survey with university students and faculty members in mid-February 2021 to evaluate their opinions on online education carried out in universities during the COVID-19 pandemic. 1 million 255 thousand students from 207 universities and 27 thousand 820 academic staff voluntarily participated in the survey. While 27 % of the students preferred face-to-face learning in the Spring Term of the 2020-2021 Academic Year, 47 % of them preferred online learning and 26 % of them preferred blended learning. Also, 46 % of the students participating in the survey preferred face-to-face learning after the Covid-19 period, 29 % of the students preferred online learning, and 25 % of the students preferred blended learning (CoHE, 2021). In addition, 83 % of the students and 97 % of the instructors stated that they have electronic devices that provide access to online education, and 89.6% of the instructors and 97 % of the students stated that internet access is sufficient. When students' accessibility to online course materials and contents was examined, 90 % of the students stated that they could benefit from the course materials and course content offered in online education and 25% of the students stated the courses conducted online had a positive effect on learning. 48% of the students pointed out that online education positively affected or did not have a significant effect on their education life and also 37 % of the students spared more time for both themselves and the lessons in the online education process (CoHE, 2021). When the opinions of the instructors on online education were examined, 69 % of

the instructors stated that they spent more time on preparation for the course while 43 % of the instructors stated that both the attendance and success of the students decreased. Furthermore, 61 % of the instructors reflected their opinions that the online education process did not change or positively affected the extra-curricular activities, and 64 % of the instructors reflected their opinions that they did not have any serious difficulties to carry out the teaching efficiently. The results of the survey indicated that 74 % of the instructors had acquired new technological and pedagogical skills. Similar to the findings from the students' preference for the Spring Term of the 2020-2021 Academic Year, 61 % of the instructor preferred online learning, 26% of them preferred blended learning, and 13 % of them preferred face- to-face learning. Also, 44 % of the instructors preferred face-to-face learning after the Covid-19 pandemic and 56 % of them preferred online learning or blended learning (CoHE, 2021). Thus, the decision on the initial teacher education program held by CoHE and the results of the survey indicated that restructuring the initial teacher education program according to the needs of the 21st century is important. Within this scope, rapid online learning experiences and preferences of preservice teachers are investigated in the current study. In this regard, this study addresses the following research question:

- What are the opinions of pre-service teachers about emergency remote teaching experience during the COVID-19 pandemic?

3. Methodology

3.1. Design of the Study

In the study, it was tried to determine the opinions of pre-service teachers about emergency remote teaching experiences during the Covid-19 pandemic process. For this purpose, one of the qualitative research methods, the case study design was used in the study. Qualitative research is a method of research that focuses on the interpretation of socially constructed phenomena and social experiences (Denzin & Lincoln, 2005). In this study, a qualitative research method was employed because the main focus is on the opinions of pre-service teachers regarding the social situation that they experienced during the pandemic. Case studies are defined as a method in which one or more events, environments, or social groups are interpreted depending on time and place (Creswell, 2005). In addition, case studies aim to examine people, problems or programs closely Yin (2002), on the other hand, expresses it as a method in which researchers seek answers to *how* and *why* questions for situations where researchers have little control over events. In this study, pre-service teachers' opinions on their experiences with emergency remote teaching during the COVID-19 pandemic were considered as a case.

3.2. Participants

The participants of this case study were 22 preservice teachers (12 female and 10 male) who enrolled in various departments (childhood, primary education, guidance, mathematics, science, religious, social sciences, linguistic) in the faculty of education in different regions of Turkey. Detailed information about the participants was given in Table 1. The convenience sampling method was used for the present study. In this approach, the investigators enroll participants based on their availability and accessibility to participate in the study (Creswell, 2005).

Table 1.

Demographic Information of the Participants

Pre-Service Teacher	Department	The Type of University	Region	Class
PST 1	Childhood	State	Black Sea	2
PST 2	Linguistic	State	Mediterranean	3
PST 3	Primary education	Foundation	Southeastern Anatolia	2
PST 4	Mathematics	State	Aegean	3
PST 5	Religious	State	Black Sea	4
PST 6	Guidance	State	Eastern Anatolia	2
PST 7	Science	State	Eastern Anatolia	4
PST 8	Linguistic	State	Black Sea	4
PST 9	Social sciences	State	Southeastern Anatolia	3
PST 10	Primary education	State	Mediterranean	2
PST 11	Childhood	Private	Marmara	3
PST 12	Mathematics	Private	Central Anatolia	3
PST 13	Religious	State	Marmara	2
PST 14	Primary education	State	Aegean	4
PST 15	Guidance	Private	Central Anatolia	1
PST 16	Primary education	State	Mediterranean	2
PST 17	Science education	State	Southeastern Anatolia	3
PST 18	Childhood	Foundation	Marmara	4
PST 19	Mathematics	State	Aegean	2
PST 20	Guidance	Foundation	Marmara	4
PST 21	Science	State	Central Anatolia	2
PST 22	Social sciences	State	Eastern Anatolia	1

As shown in the above table, diversity with regard to school type, region, and class levels was considered for participants.

3.3. Data Collection

The data were collected via an online self-reflection form. During the development of the pre-service teachers' self-reflection form, the primary focus was on determining the areas for which participants might generate opinions during the Covid-19 pandemic, and interview questions were designed accordingly. The literature on ensuring the efficiency of emergency remote teaching experiences of pre-service teachers during the COVID-19 pandemic was used to develop the interview questions that were asked. Accordingly, the expert opinion was obtained from two academicians from technology education and the form was restructured based on their opinions. Some example questions are as follows: Before the COVID-19 outbreak, did you take courses via distance education? If your answer is yes, please share your experiences; Have you considered freezing your enrollment after CoHE granted you the right to do so? If your answer is yes, please share your experiences; Please provide your opinion on the decisions made by CoHE regarding school experience if you are a prospective student. Please specify if your university applies for any extra school experience programs; Do you think your department is appropriate for online education? Justify with reasons; Compare the courses you took face-to-face with the courses you took with online education during this period. What advantages or disadvantages would you have if you had taken these courses face-to-face? Please explain.

3.4. Data Analysis

First of all, descriptive methods are used to analyze demographic information. Then, the raw data obtained from the pre-service teachers through a semi-structured interview form were tabulated separately for each question, and then content analysis was carried out. The researcher and colleague first examined the

answers given to open-ended questionnaires independently. For this reason, only the codes obtained from the answered questions were compared. For situations where there is a conflict of opinion when creating codes for answered questions, the questionnaires were re-evaluated and this situation continued until an agreement was reached As suggested by Lincoln and Guba (1985), the final list of codes and categories was offered to the opinion of an expert in the field of qualitative research, and peer evaluation was made. Thus, the coding accuracy of the study's data was increased. According to Miles and Huberman's (1994) reliability formula, a consensus of 96 % was obtained. Within the framework of research ethics, no student's name was used but was shown with one of the letters from the alphabet. The PST abbreviation was used by the pre-service teacher in the findings section of this study.

4. Findings

According to demographic information from pre-service teachers, all of them stated that they have their own technological tools. They mostly have smartphones (86 %) and laptops (63 %). Although 91% of the pre-service teachers provide easy access to the internet, 9 % of them do not. Only 13% of the students took online learning before the COVID-19 pandemic. Pre-service teacher 11 stated that "I took two lessons via its learning platform. The course and mid-term exams were online, but the final exam was at school. Our university provides some theoretical lessons such as Turkish and History in that way". One of the students conceived the right to free enrollment after the decision of the Turkish Council of Higher Education because of doing the double major. In addition, pre-service teachers in the study express their negative thoughts about the school experience. Pre-service teacher 14 expressed their views as "I should have done field experience; I do not have any school experience. The university gave ridiculous assignments instead of the school experience. I am not satisfied with this decision at all".

Furthermore, pre-service teachers have encountered some difficulties related to technical problems and technological deficiencies of the instructors with the transition to online education. For instance;

PST (1): "Technological inadequacy and inexperience of the teacher who will teach the lesson, and the inefficient and poor quality of the lesson was a great difficulty in understanding the lesson".

PST (6): "Freezing was happening in the lessons. There were no voices. They gave more homework. We taught fewer hours. So inefficient".

PST (5): "During the busy hours of the system, there is a connection problem in both teachers and students entering the class. Apart from that, it has no difficulty".

PST (2): "I had difficulties accessing classes. Even the instructors cannot enter the system properly".

On the other hand, two of the pre-service teachers stated that they have no problems related to online education. Pre-service teacher 22 stated the opinion as "I thought I could not adapt, but I have not had any trouble so far".

Compared the courses taken in distance education during this period with the courses taken face-to-face just before this period, they expressed that face-to-face learning has many advantages over distance learning. For example;

PST (2): "In face-to-face learning, main points that we did not understand were emphasized. In distance education, the teachers record, and upload videos. Recordings are necessarily just reading slides. No lessons to be learned by reading slides".

PST (14): "The field lessons I took in the preschool department are mostly based on activities and practices. Therefore, while it is possible to carry out and apply these activities in face-to-face education, more lessons are taught with the note, and slide system in distance education. I see this as a disadvantage".

PST (20): "Face-to-face lessons would make me understand better, and at the same time, it would be more efficient for my future teaching life".

PST (3): “Absolutely, face-to-face training is always better for discipline and adaptation”

PST (5): “I could not learn anything in this distance education, if I were face to face, I would be able to understand and learn this information”.

In addition, pre-service teachers pointed out that they took lessons by methods (online, video, and presentation). Pre-service teacher 7 said that the “online method is better for me because we have questions to ask. If it is not online, it does not keep in my mind”. Pre-service teacher 6 also supported the opinion as “This method is more effective in establishing mutual dialogue”.

When pre-service teachers evaluated whether distance education contributes to them and their future teaching life or not, more than half of them stated distance education provided a positive contribution to them. For instance,

PST (1): “Distance education was a subject I had not experienced before. Although I am not satisfied with the situation, I am glad to have experienced this. I do not know whether I will take this compulsory distance education again in the future or not, but I think it will contribute to being prepared and conscious “

They expressed the opinion that the compulsory transition to distance education provides them with technology-integration competency. Pre-service teacher 6 said that “Now I’d be prepared for anything. I know what to do in the pandemic and difficult conditions”.

On the other hand, pre-service teachers made some suggestions for administrators who organize educational activities in case of pandemic is to be encountered again in the future. Some suggestions are as follows:

PST (8): “First of all, while talking about equality in education, we have people whose understanding of education in this pandemic is completely based on technology and who do not have the necessary opportunities to use this technology. I would have demands to provide these people with the necessary facilities “.

PST (12): “First of all, decisions should be made by considering student psychology. For example, the hours and intensity of the lessons should be carried out accordingly, the contents should be selected and applied accordingly, the situations should be avoided and the students should be treated more motivated and positive. It should be prevented; it will only affect this process badly”.

PST (4): “Curricula should be more prone to distance education. There should be no sudden transition”.

PST (3): “I expect students who do not have easy access to courses to be identified and necessary tools should be provided”.

PST (18): “In light of the fact that not everyone will be under the same conditions, I would propose that the appropriate steps be taken to provide educational platforms that are accessible to all”.

PST (22): “I would request that measurement and evaluation be improved in terms of reliability and this issue should be approached more carefully. I would like to establish an e-library where students can benefit from distance education and where research for the courses of each department and each book is included”.

PST (13): “With an official order at the beginning of the academic year, the assessment and evaluation of the courses to be delivered in that term should be communicated to the students. Hence, uncertainties regarding the process should not be excluded”.

As shown above, pre-service teachers’ suggestions are related to facilities, and measurement and evaluation methods.

5. Conclusion and Suggestions

The findings from this study revealed that pre-service teachers prefer to face-to-face learning because of permanent learning and social interaction with peers and instructors. The findings are consistent with data

obtained in the study conducted by CoHE (2021) that many university students preferred face-to-face learning after the COVID-19 period. In addition, pre-service teachers stated generally face technical problems like internet disconnection. The problems related to internet connection were also stated in the literature (Türküresin, 2020; Yurdakul & Susar Kırmızı, 2021). On the other hand, they stated that online learning is more effective than video and presentation when considering the imperative in this pandemic. Pre-service teachers also stated that they could ask their questions and conduct a dialogue in the lessons through online learning. Hence, it could be concluded that pre-service teachers supported instructional methods that encourage both active and social learning.

Moreover, the majority of the pre-service teachers suggested revision in the curriculum considering blended learning. The findings from the studies (Eryılmaz, 2015; Jovanovic et al., 2015) also support that pre-service teachers prefer hybrid and blended learning. They also expressed their negative feelings about the decision by CoHE related to the school experience. They thought that school experience is an important component of their education to develop their teaching skills. Cochran-Smith et al. (2015) supported this notion that pre-service teachers should be given opportunities to gain experience in the classroom setting in which they will be teaching in the close future. High-quality online courses and learning experiences were developed by higher education institutions to ensure that students could continue their education even if their campuses were abruptly closed for maintenance. Many universities, on the other hand, struggled and lacked the knowledge and time necessary to come up with innovative methods of delivering instruction and assignments. Online courses were available before the pandemic, but only a small number of students believed online learning to be the only feasible option to traditional face-to-face schooling. Students learning trajectories and advancement were restricted, which had an impact on their ability to perform well in examinations.

Although the current study is limited to a small number of participants, the findings indicated that some results are consistent with the studies conducted with a high number of students. In accordance with the findings from this study, current programs in education faculty should be revised based on new technologies and blended learning. Pre-service teachers as future teachers should have technology skills and technological pedagogical content knowledge. For each program, the online platform pool should be prepared with all books and digital materials. In addition, preservice teachers should acquire online school teaching experience or micro-teaching experience in this technological era. Thus, they could be provided with experience against the possible situation they may experience in the future. What the pandemic has taught us and how we can use these gains for the next pandemic should restructure the preservice teachers' professional development for the future.

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