Journal of Qualitative Research in Education

Is there anybody out there? Insights into Teachers' Emergency Remote Teaching Experiences*

Nevin AVCI**

To cite this article:

Avci, N. (2023). Is there anybody out there? Insights into teachers' emergency remote teaching experiences. *Journal of Qualitative Research in Education, 34*, 1-22. https://doi.org/10.14689/enad.34.807

Abstract: This study aims to explore the phenomenon of emergency remote teaching (ERT) during the COVID-19 pandemic in terms of teaching practices from the perspective of public high school teachers. This study, as a phenomenology design pattern in the qualitative paradigm, focused on the phenomenon of ERT as experienced by public high school teachers and as it appeared to the teachers from the first-person point of view. Data were collected from five secondary education public high school teachers who were selected through criterion and convenience sampling methods using an individual semi-structured interview form, transcribed by dictation.io, and analyzed through content analysis. This study yielded vivid descriptions through the themes of "shifting practices", "pearls and pitfalls of ERT" and "most challenging aspects of ERT experiences." Personal gains aside, the study can provide decision-makers with insights for considering the effectiveness of the execution of ERT. The findings can be used to improve the status of ERT practices and learning during crises.

Keywords: Emergency remote teaching (ERT), Covid-19 pandemic, phenomenology, teacher experiences, public high schools

Article Info

Received: 15 Dec. 2021

Revised: 11 Dec. 2022

Accepted: 22 Dec. 2022

Article Type

Research

* This study was presented in VIII. International Eurasian Educational Research Congress Online (EJER) held in Aksaray, TURKEY, July 07-10, 2021.

** Middle East Technical University, Turkey, nevinavci06@gmail.com ORCID: 0000-0002-8490-6074

Introduction

Since March 2020, the world has faced unprecedented challenges in education and all related sectors - as a result of the COVID-19 pandemic. Similiarly to the experiences of other countries, the closing of the schools on March 16th for two weeks was considered a short-term precaution that was to end in a short time in Turkey. The second long-term extension given by the Ministry of National Education (MoNE) and the probable repercussions of the pandemic put pressure on teachers, administrators, students, andparents and opened a period of uncertainty in terms of school closures and education.

At the time of this crisis, which was felt all over the world, teachers had to reconfigure their courses, reshape, and redesign their teaching practices in a very short time span. During this time, instruction was generally delivered through EBA, Google Teams, and Zoom as the major digital platforms for instruction. Additionally, to those platforms, the public broadcasting TV channels provided asynchronous courses for students with a lack of digital equipment and/or experiencing network or technical problems. In this respect, as reported in the literature, variations in the means of instruction included synchronous and asynchronous teaching and learning activities (Yi & Jang, 2020; Rap et al., 2020).

ERT, defined as "a temporary shift of instructional delivery to an alternate delivery mode at the time of crises" (Hodges et al. 2020, para. 14), started a new phase in education. In contrast to online teaching and learning, which is built upon diligent instructional design and planning from the beginning, ERT, in most cases, lacks a design process and mostly aims to provide quick access to instruction during emergent circumstances (Hodges et al. 2020). Accompanied by its challenges and complexities, ERT could better be understood from the perspective of the central stakeholders in education: teachers and learners. In this respect, the literature, although in its infancy in terms of ERT, provides a good number of studies regarding the experiences of teachers. First, the literature suggests that teachers experienced challenges using educational technologies. Different studies indicate that the challenges experienced were mainly due to poor or limited internet access (Bakioglu & Cevik, 2020; Sari & Nayir, 2020; Wilder, 2020), poor or lack of infrastructure (Bayburtlu, 2020; Sari & Nayir) and technical difficulties (Joshi et al., 2020), particularly in developing countries. Besides, lack of technological support, lack of sufficient knowledge and experience in distance education (Sari & Nayir, 2020; Van der Spoel et al., 2020), and needs for additional knowledge about technological tools and technological pedagogical content knowledge specific to the subject areas (Rap et al., 2020) appear to be the most prominent reasons paving the way for challenges encountered by teachers. According to Van der Spoel et al. (2020), a teacher's perception of technology is also a crucial indicator for teacher professionalizationn in incorporating technology effectively. In other words, the state of teachers' perceptions of technology is claimed to be an important variable that might lead to challenges undermining the process of ERT. The other factors mentioned as impairing teachers' professionalizationin adopting technology were insufficient training focusing on teaching practices (Baran 2014; Hadar et al. 2020), limited time for gaining

familiarity with the technology,and a lack of knowledge and skills to support learning with the use of ICT (Van der Spoel et al., 2020).

On behalf of the challenges for students, on the other hand, the studies report that teachers also had to cope with student behaviors, issues of classroom management (Sari & Nayir, 2020), student engagement and participation, and achieving direct contact with students (Rap et al., 2020). Another aspect of the account of probable challenges for students was referring to the probable academic integrity breaches in assessment (Nasr, 2020), which can be mitigatedon the digital platform and cause unfair judgments about the students' achievement. Last but not least, other concerns raised by scholars were about students with limited or no support and training, highly anxious and lonely students, distracted focus, and students worried about the unpredictability of the closing academic year (MacIntyre et al., 2020). Also, as found out by Mailizar et al. (2020), students with e-learning barriers, including financial problems, insufficient e-learning skills, isolation from peers, motivation, assessment,affection, andsocial domain, establish other aspects of their concerns. Apart from concerns related to students, Petrie et al. (2020), as cited by MacIntyre et al. (2020), noted that teachers were also faced with parents who were overwhelmed and unprepared to help their children with technological educational practices and digital tools. As a result, teachers had to bear the burden of maintaining and balancing "a positive student-teacher-parent rapport," and they acted as catalysts among those players in education. On the other hand, under the threatening circumstances of the pandemic, the American Psychological Association (APA) (2020) emphasized and warned against the potential trauma of isolation, possible post-traumatic stress disorders, the feeling of loneliness, depression, and anxiety. In the blurred areas of work and home life, teachers also had concerns about the health of themselves and other family members, as well as students, and encountered psychological challenges due to the invisible boundaries of the physical, temporal, and/or psychological areas of home and school (MacIntyre et al., 2020). Moreover, according to the Department of Mental Health at the World Health Organization (2020), during the experience of a crisis, children observe and look up to adults for cues in managing emotions and situations, which is also known as teachers' resilience (Wong & Moorhouse, 2020). In this respect, the behaviors of teachers and the coping strategies adopted by them gain a more pronounced value on behalf of nurturing the well-being of the students.

Apart from the personal-technical, student-based, parent-based, and psychological challenges experienced, what might have been more painful and difficult was to transfer and apply teachers' teaching and pedagogical practices. As a new concept, ERT (Code et al., 2020) forced teachers to leave what they knew about teaching until then and enter into a phase of transformation about "how to teach". Relevant to this fact, Darling-Hammond and Hyler (2020) noted that while making up for the students' academic loss and alleviating their social-emotional needs, the educators, in a broad sense, needed to get prepared and supported to navigate teaching and learning processes during and beyond the pandemic.

In 2020, as an era of change and transformation, the rationale of this study evolved around the informal conversations with the teachers who were in close contact with the researcher due to their working conditions. The impromptu and complicated reactions of the teachers about ERT as a result of informal conversations observed by the researcher in the context of COVID-19 provided the basis for the decision to conduct this study. Therefore, based on the felt need for teachers to share their experiences about ERT in the pandemic, the researcher decided to conduct this study to explore and understand the complexities and challenges experienced by teachers as they appeared in their consciousness from their perspective. In this respect, the purpose of this study is to explore the phenomenon of ERT from the perspective of public high school teachers' personal experiences through their teaching practices. The research questions serving to achieve the purpose of this study were as follows:

From the perspective of public high school teachers;

1. As compared to face-to-face teaching practices before the outbreak of the COVID-19 pandemic, based on teacher experiences, how are the teaching practices described during ERT?

    1.1. What is the meaning of ERT in terms of far-reaching consequences for public high school teachers?

Method

Research Design

This study as a phenomenology design pattern (Patton, 1990) in the qualitative paradigm aims to study the structures and the phenomenon of ERT as experienced by public high school teachers and to explore the patterns as they appear to the teachers from the first-person point of view.

As is suggested by the article by Van Manen (2017), to check whether the study indeed takes a phenomenological stance, three areas were checked: whether the research questions in this sense were phenomenological; whether it looked like phenomenology; and whether the results of the study were ordinary phenomenological insights and understandings (pp. 775-776). In a scholarly sense, this study, in the scope of its research questions, was satisfyingly in line with the phenomenological method. Moreover, as the intention was truly to derive phenomenological insights and understandings from the teachers' experiences and their foresights about the far-end results relevant with ERT, it can be said that the design of the study was to a good extent checked against the threats to the phenomenological stance. As Husserl (1970) described, "what we know best, what is always taken for granted in all human life, is always familiar to us in its typology through experience" (pp. 123-124); phenomenology is like a door opening to the world of lives. Accordingly, my aim in this study was to enter theworld of the teachers, reveal and describe the structures of meaning in those lived experiences in the ERT process, and ultimately reach a deeper understanding of the

meaning of the natural flow of the phenomenon of ERT through the consciousness of the public high school teachers.

Context

In the qualitative research paradigm, digging into the reality of the phenomenon under interest requires diligent and careful investigation. Besides, as phenomenology urges us to reveal the way things appear to us, the duration of the experience might have had an impact on the phenomenon's crystallization in teachers' minds more vividly. To reach a more vivid and holistic picture of the phenomenon, the end of a year of ERT practice was thought to be more appropriate as teachers would have experienced the phenomenon in all aspects. Therefore, the study was conducted in April 2021. Up until this time, teachers had been experiencing the phenomenon of ERT for almost a year. The school the participants worked at was a vocational and technical Anatolian high school with 400-600 students. Under the tense and threatening atmosphere of the pandemic, the teachers conducted ERT using their own technical equipment and mostly preparing their own materials for instruction.

During the times of data collection, like it was the case in every other city in Turkey, in Sakarya as well, country-wide lockdowns between the hours of 7 p.m.-5 a.m. during the weekdays and thorough weekend lockdowns starting at 7 p.m. on Friday until 5 a.m. on Monday were still in effect. Besides, the rules of social distancing, hygiene, and using face masks were still in force.

Research Participants

In-depth, individual, semi-structured interviews were conducted with five ($n=5$) teachers. The participants were selected through criteria and convenient sampling methods. While the school from which the participants were selected was convenient to the researcher, the selection of the participants was based on some pre-specified criteria. The criteria used for the teachers were identified as "having experienced ERT for a certain period of time during the pandemic," "having experienced ERT working at the same school during the pandemic," and "teaching either a vocational or a cultural course."

The participants were selected in two phases. While the identified criteria acting as a funnel were used to identify the participants in the first phase, a convenient sampling method was put into action to identify teachers in the second phase depending on their willingness to participate and having time to spare for contributing to research. The second level of identification of the participants was conducted through short phone calls. As a result, five teachers participated in the study, including a graphic design vocational course teacher, a child development education vocational course teacher, a literature teacher (cultural course teacher), a mathematics teacher (cultural course teacher), and an English teacher (cultural course teacher).

Research Instruments and Data Collection Procedures

An individual, semi-structured interview form was employed for collecting the data. The interview schedule was prepared by the researcher. After consulting with the expert, the final form was piloted to assure clarity and accuracy.

The conditions of the teachers, the heavy workload they were going through, and the accompanying household responsibilities were identified as important factors that would impact the quality of the data.. Accounting for those concerns, the interviews were arranged and conducted considering the sensitivities of the teachers and the privacy conditions. As a result, five in-depth interviews were conducted through phone calls due to the precautions of social distancing. The duration of interviews ranged from 45 minutes to 75 minutes.. Each interview was recorded using the audio recorder software on the computer and transcribed through the software application dictation.io.

Data analysis

Following the transcriptions of the interviews, the data were analyzed through content analysis. Data analysis is an iterative and continuous comparative process that requires reducing and retrieving large amounts of data in qualitative research. By coding, the analytic processes of "fracturing," "conceptualizing," and "integrating" theory are facilitated (Fraenkel, Wallen & Hyun, 2012). In this respect, following the inductive coding of the data, the emerging patterns were fractured and then integrated, creating categories, and ultimately themes. This iterative and continuous comparative analysis process was conducted following the framework developed by Yildirim and Simsek (2016). The abbreviations used in the results part were Vt1 and Vt2 for vocational teachers, whereas M, L, and E were used to refer to mathematics, literature, and English teachers, respectively.

Trustworthiness and Ethics

Regarding the credibility of the study, which is about the believability, accuracy, and appropriateness of the research account, the purpose and method of this study and data collection procedures were given in detail to provide the readers with a consistent frame of reference for the findings and the probable future replications. In this respect, member checking and referential adequacy (Lincoln and Guba, 1985) techniques were employed. In this study, member checking was employed at the level of data collection and interpretation. Regarding referential adequacy, a portion of the data was archived without conducting any analysis. Preliminary findings were developed by conducting an analysis of the remaining data. To verify and test the credibility of the preliminary findings, the archived data were analyzed afterward.

On the other hand, the transferability of the study, which is about the applicability of the study in different contexts, was established through purposeful sampling and thick description. In this respect, a good account of information was provided about the context, method, participants, and data collection procedures of the study, and both data gathering and data analysis processes were continueduntil no new insights were

observed. In other words, to assure rich data with thick descriptions and support emergent claims, data saturation was utilized in both data collection and analysis.

To establish full compliance with the ethical principles in research, following the preparation of data collection instruments, approval of the METU Scientific Research and Publication Ethics Committee was saught.

All the participants were fully informed about the purpose of this study, the data collection procedures, and the conditions for disseminating the study results. Besides, the written consent of the participants was obtained. Before starting to record the interviews, teachers were also informed about data confidentiality, and their permission was taken to record the interviews for transcription and data analysis purposes to avoid any probable losses.

To assure confidentiality, the researcher arranged interview dates based truly on participants' wishes for their comfort, conducted each interview in full privacy, coded the names of the participants unmatched with participants' personal information, and kept the files under security programs in digital files.

Findings

To provide a systematic flow, the findings gained as a result of the analyses of the data obtained from the semi-structured interviews belonging to vocational course teachers and cultural course teachers were presented, respectively. Also, the emerging patterns of commonalities and disparities were presented in an embedded pattern to provide a holistic point of view regarding ERT in the teachers' consciousness.

According to the interview analysis, the emerging codes and categories created the themes of "shifting practices," "pearls and pitfalls of ERT," and "most challenging aspects of ERT experiences."

In response to the first research question, the patterns of the analysis revealed that the shifting practices were described mainly through changes in *planning*, *teaching, and learning processes* (phases of learning; materials and equipment; strategies and methods; feedback and correction; assessment and evaluation); *rapport;* and *metacognition of ERT*, as presented in Table 1, representing the overall related categories with the themes. The analysis of the interview data of vocational course teachers indicated that, different from face-to-face education, during ERT theuse of printed materials for planning was replaced with searching for software materials, such as videos, animations, and useful links containing visual and audio content for the topic.

Table 1.

Themes and Categories

Themes	Categories
Shifting practices	Planning
	Teaching and learning processes
	Rapport
	Metacognition of ERT
Pearls and pitfalls of ERT	Technical problems
	ERT execution decisions
	Socio-economic problems
	Students' individual problems
	Silver lining of ERT
Most challenging aspects of ERT experiences	Lack of communication in teaching and learning processes
	Teaching strategies/methods/techniques
	Materials and equipment
	Physical, psychological and social long-term effects

On the other hand, according to the analysis of the teacher responses, *teaching and learning processes* seem to have been affected remarkably in terms of the complementary effect of theory and practice in the context of vocational courses. The analysis indicated that before the pandemic, phases of learning included stimulation of prior knowledge using short revisions of previously learned topics, presenting the new information, including the theoretical part of the topic, followed by demonstrating. Before the pandemic, demonstrating was established through providing guidance to learners and eliciting performance. In comparison to this case, during the pandemic, demonstrating was followed by allowing time for rehearsal to support internalization and partial application of new information instead of providing direct guidance. Due to the changing mode of instructional means, learning context, and "cameras turned off" policy followed by MoNE, teachers were not able to provide instant feedback and guidance to learners. Instead, elicitation of the performance was judged through pictures of the end products of students, which was reported to be impractical and ineffective.

> First of all, I myself turn on my camera, show how the application is done step by step, and give students 2-3 hours of time to apply what I taught. … Nothing comes out of these efforts. When it is face-to-face, I walk into the class, observe, and help students who experience difficulty right on time. In this way (ERT), to what extent a student can see or understand is too questionable! [Vt2]

The analysis revealed that before the pandemic, vocational teachers mostly made use of demonstration and giving examples in the graphic design course, while for the child development and education department, demonstration, drama, and role play were the most commonly employed *inventory strategies and methods/techniques,* which were described by teachers as the heart of their courses yet were all impracticable during ERT. As was described by teachers, not being able to make use of these strategies and methods/techniques was a remarkable hindrance in teaching-learning processes during all this time of experience with ERT.

> We have a course named "nematic activities," which is thoroughly based on applied skills. We constantly make students do rhythm practices and organize plays. I am not able to cover this course

> remotely. Drama means learning by doing and supporting students' creativity. It is impossible to teach learners using computers in live courses, neither now nor in the future. [Vt2]

Another emerging aspect of teaching and learning processes was the use of *materials and equipment*. The main instructional platforms utilized by vocational teachers were EBA and Zoom, while the digital instructional materials were reported as videos, PPTs, animations, films, and useful links. As a prominent finding, the descriptions of the teachers purported that the teachers were not using the digital materials and equipment embedded in instruction but in a complementary fashion for revising the topic. The *in-law case of digital materials and equipment* indicated that digital materials were recognised and articulated as valuable yet not adopted, adapted, or utilized naturally and directly for instruction.

> After a while (during the pandemic), I started searching for videos about what I teach and made them watch them.Also, we use it to fill in time. They may not listen to me, but they may learn something from the video or animation to compensate for their missing knowledge. [Vt2]

Apart from materials and equipment, another remarkable pattern in teaching and learning processes emerged regarding *feedback and correction*. The analysis revealed that while teachers were able to give and receive feedback instantly during the phases of learning on student products and made use of individual and group feedback before the pandemic, during the pandemic, the means for providing feedback changed in the digital learning environment due to the "turned off cameras policy." The impromptu direct individual and group feedback was substituted with *interval individual feedback*. That is, as the teachers provided students with rehearsal time for applying theoretical knowledge and there was no direct intervention of teachers during the time of learners' applying the knowledge, the feedback encountered a lapse of time and became an interval during ERT.

> …and after they send me the screenshots, I put them on the screen and explain where they went right or wrong. It is not like it is the case in our real classrooms; we cannot go for observing what and how they are applying and providing help individually; therefore, by listening to my explanations, at best 50% is understood and corrected. [Vt1]

Under the category of teaching and learning processes, *the effect of assessment and evaluation* emerged as a persistent pattern. The flow of news in the media about postponing or applying for exams was understood to have created a *postponed learning endeavor effect* on students. In other words, parallel to the changing decisions about applying exams by MoNE, the rate of attendance and attempts at learning fluctuated.

> When we say, "The exams will be applied", the attendance rates increase, and they start to present their excuses explaining why they did not attend previously and try to participate. These back-and-forth decision processes influenced learners a lot. [Vt2]

On the other hand, the descriptions of teachers depicted that, due to a *lack of knowledge about the conditions and learning environment of the learners*, *lack of knowledge about students' progress, errors, or omissions in student learning* during ERT, teachers staggered under *the weight of conscientious responsibility for fair judgment of student learning*. It was indicated that the circumstances under which students attended the

courses or not were unknown, and as the cameras were turned off, observing the clues as signs of learning was no longer an option. Therefore, assessment and evaluation emerged as an area vulnerable to making false decisions, which could be remarkably controversial during ERT.

> …as the exams were postponed to the second term, the number of students decreased again. Grades will be given in the second term but depending on what! What if the students could not attend? What would be the grade for someone who did not learn anything? That is, it is a pretty disturbing and conscientious situation! [Vt1]

The data analysis belonging to cultural course teachers (literature, mathematics, and English) working at the same school referred to similar findings with slight differences, which seemed to stem from the peculiarities of the subjects themselves. According to the analysis, the teachers defined planning as *a reflex developed over time* that was reported to be a natural result of gaining experience. Similarly, in the case of vocational teachers, during the pandemic in planning, using already developed plans was replaced with *searching for software materials*. On the contrary, the *teaching and learning processes* had been remarkably undermined as a result of the "cameras turned off" policy for secondary education teachers and learners, which inhibited effective communication. While in face-to-face education times, teachers were following the phases of learning, *starting with icebreakers*, *stimulating recall of prior knowledge* through revisions, summaries, *presenting new information,* and *eliciting performance;* during the pandemic, this routine seemed to be damaged evocatively in the case of vocational teachers. Due to the *barriers to effective communication*, all three teachers were not able to use icebreakers or initiate small talks before embarking on presenting new information, providing direct guidance, or eliciting performance. Instead, they only made use of *a reduced stimulation recall of prior knowledge*, *presented new information,* and *allowed time for internalization of new knowledge,* which overall was defined by teachers as "*teaching for heading nowhere*."

> Now (during the pandemic), we do not see students' faces. For example, I say, "Hello, how are you?" Silence! Maybe one or two students will respond. I present the topic through a PDF file, give them time to write the equations, and solve related questions for internalization…but you reach nowhere and nothing! [M]

Similarly to the experiences of vocational teachers, compared to face-to-face education before the pandemic, cultural course teachers were also negatively influenced in using their regular and most productive strategies and methods/techniques during ERT. Yet, the analysis yielded that, due to the peculiarities of the subjects, the use of strategies/methods/techniques was influenced in different ways for each course. For instance, in mathematics, teachers needed to analyze students' analytical skills and understanding of concepts through practice. However, as was described by the teacher, in ERT, the leg of practice-based applications of the instructional methods, in a sense, was amputated. Therefore, teachers benefited more from teacher-based instructional methods/techniques, such as *lecturing*, *giving examples,* or reducing the value of instructional strategies/methods/techniques to different levels. For instance, the question-and-answer technique was reduced to a *question only with no response* during

ERT due to the one-way flow of communication. That is, lecturing and textbook-based teaching inescapably seem to have dominated the instruction in ERT.

> My way of teaching has now turned into a monotonous routine. I am using the textbook and PDF files. In the past (before the pandemic), we had variety, group 11ctivities, individual activities, and so forth. ... Now (during the pandemic), I ask a question, but I just ask! No answer! [M]

In the literature course, on the other hand, the most commonly consulted and defined as productive inventory strategies/methods/ techniques were *question and answer*, *reading aloud*, *Socratic inquiry,* and *discussion,* which were replaced with the method of *lecturing* and the *question only with no response* technique in ERT.

> I made them read the text or the book aloud to track their reading skills before, which is impossible now. They are unwilling; even the students I knew from previous grades do not want to read. In this case, I read the text myself and also interpret it on my own! [L]

Based on vivid descriptions, it is understood that cooperative learning and instruction based on peer interactions, which were the most consulted methods before the pandemic, were substituted with *task-based activities reduced to a level of "individual only"* and *question-only with no response* technique in ERT.

> Now (during ERT), I assign tasks to students, but I cannot say it works well. Tasks are mostly not not completed due to technical or other problems. Communication is a must in our course. Before, tasks were meaningful because they were done in groups or pairs. [E]

As for the use of *materials and equipment*, the analysis indicated that utilizing individually prepared archives, printed resources, and photocopies of tests, the smart board and whiteboard were substituted with PDF documents, z-books, screenshots of varied instructional and digital materials, tablets, and tablet pens. Compared to the findings of vocational teachers, it can be said that the use of materials by the cultural course teachers presented a more embedded approach. In other words, the descriptions of cultural course teachers revealed that the use of digital materials was slightly more concentric and meaningful.

Similar to the findings of vocational teachers, the cultural course teachers shared common experiences with slight differences concerning *feedback and correction* procedures. The analysis revealed that, regardless of subjects and department peculiarities, challenges were experienced due to -communication breaks as the students' cameras were turned off, which resulted in a *lack of observation for providing hints, feedback, and correction* to students. From the perspective of the literature teacher, the camera policy and communication break also meant *failure in the identification of learners with low reading skills,* despite the teachers' intensive efforts to hear students' voices.

> You cannot judge whether students understand or not. You know, as a teacher, when you look into their eyes, you mostly understand if they understand or not, but here (ERT), there is no chance… when you ask a question, you no longer expect a response, and in a minute or two, you answer the question-yourself as a teacher. [L]

As a common point revealed in terms of the *effect of assessment and evaluation*, the consequence of unstable decisions of execution about whether to apply exams or not by MoNE led to a *postponed learning endeavor effect* on students. Different from the findings of vocational teachers, the analysis of the cultural course teachers' responses indicated that their concerns focused on the *applicability of assessment and evaluation practices* during ERT. Another concern emphasized the *aftereffects* of the absence of assessment and evaluation practices for almost a year, concentrating more on near-and-ong-term future effects. Regarding the applicability of assessment and evaluation procedures, the findings referred to the *uneven balance among the components of teaching and learning processes*. That is, teachers found it meaningless to conduct in-class pen-and-paper tests during ERT, during which the rest of the processes were conducted online. Also, a lack of knowledge of students' progress, knowledge, learning environment, and familial conditions and the difficulty level of the questions prepared for exams stood as disturbing uncertainties. These entities emerged as gaps, disturbing teachers' *conscientious responsibility against the possibility of an unfair judgment* of student learning.

In response to the sub-research question, the meaning of ERT as far end consequences emerged in the patterns of *the aftereffects* in the absence of assessment and evaluation practices during ERT. In this respect, *COVID-19 learning loss*, *gradual long-term loss of students due to learning loss,* and *postponed curriculum* were concerns referring to near-future effects, which underlined the probable situations and/or issues that teachers would encounter in the second term and coming academic years.

> If students pass to the next grade with missing knowledge, it will increase incrementally. If the students do not have prior (baseline) knowledge, they will not be able to understand the next topic either. …Therefore, we will cover the missing parts and the new ones will be postponed to the next! It seems like this is a year of loss. No, it is a lifelong loss. [M]

As for long-term aftereffects, *irreversible negative effects on the educational lives of students*, the *unemployment probability,* and *social injustice* were the emerging concerns as a result of the analysis of teacher responses. In other words, the gap between learners with better conditions and those faced with learning loss due to any reason during ERT was thought to breed *unequal opportunities* for learners in the long run.

> The students with better conditions can compensate for the loss by being tutored, attending private courses, and so forth. In a way, at least, they can have better lives. While a part of society will move towards unemployment, the other part will be graduates of the university and work at better-paid jobs. [M]

According to the analysis of the overall interview data, regardless of the departments and subject areas of the teachers, rapport emerged as an essential requirement that glued the whole teaching and learning process to the theme of "shifting practices." The teachers were not able to see students due to the "cameras turned off" policy, which worsened the teaching and learning practices. This situation created a *domino effect in the absence of rapport* among ERT entities. The failure to establish rapport seemed to have shaped the overall ERT practices. Phases of learning can be said to have lost most of their attributes, particularly those that depend on communication, the give-and-take

transmission of ideas and knowledge, providing and receiving feedback, and correction. As a natural result, the strategies and methods/techniques that proved to be effective in face-to-face education turned out to be impracticable. Finally, the irresponsive communication attempts of the teachers and teaching practices devoid of any assessment practices emerged as havingleft the teachers with no clues about student learning and/or reaching the standards in the curriculum.

> I asked even casual questions just to initiate conversations, understand their problems, etc. No answer! Thus, we are not even sure they are on the other side of the screen. Suppose that they are; it is not evident whether they listen to the lesson or not, either. How can I understand if they learned or not? [Vt2]

Reflecting on teachers' own critical awareness, *metacognition of the overall experience of ERT* was represented with *the definition of ERT teaching and learning processes*; the *definition of the overall experience of ERT*; *definition of teaching;* the *role of the teacher during ERT,* and *ERT as a phenomenon*. In this respect, the findings indicated that the teachers tried their best and put a lot of effort into their job. Yet, the execution decisions taken for enacting ERT might have led teachers to define ERT teaching and learning processes as a *deadlock,* which appeared to be attributed to a lack of communication during the teaching and learning processes. The findings revealed that what was unforeseen was the *shattered rapport with students*, which was described as vital for the teaching processes yet could not be established due to the reasons of cameras turned off, non-compulsory attendance, and no assessment policies during ERT. The patterns appearing in the findings showed that the overall experience of ERT was described as *a sense of paralysis*, *isolation*, *feeling trapped,* and *loneliness,* as expressed "I feel like I am talking to myself, all alone. No one hears me. Sometimes, I ask a question ten times. I yell, "Is there anybody out there?" …I feel exhausted." [Vt2]

All in a nutshell, teaching during ERT was described as *mechanical vs. meaningful*, *monologue teaching* and a *one-way street*; being a teacher as a *knowledge transmitter*; and the phenomenon of ERT as *fragmentary,* which was identified as half without the wing of pedagogy.

"Pearls and Pitfalls of ERT" and "Most Challenging Aspects of ERT"

The descriptions of teachers revealed that ERT was depicted as a phenomenon in which the bad sides surpassed the good sides. In this regard, the pearls and pitfalls of ERT were represented through *technical problems*, *ERT execution decisions*, *students' individual problems, socio-economic problems,* and the *silver lining of ERT*.

According to the analysis of the teacher responses, *technical problems,* such as a *lack of internet infrastructure,* particularly in rural areas, a *poor internet connection*, a *lack of equipment* (i.e., tablets, computers, and mobile phones), and an *unfriendly digital learning environment,* were found to be major factors creating a *digital divide*. According to the teachers, even connectingvia a mobile phone with a quite small screen compared to a computer could influence students' learning negatively. However, the broader picture told us that the *socio-economic problems* of students' families could be accounted

for as a deeper and more serious factor having an impact on students' learning. The emerging patterns in the analysis revealed that *low-income families* and *parents with many children* were not able to afford the necessary equipment for their children.

> I call the parents and I tell them, "Your kid is not attending the lessons!" They say, "We have four children! Who should we put first? I cannot even afford the internet." At that point, there is nothing you can do as a teacher! [M]

*ERT execution could also be an indicator,*providing bases for reasons accounted for in some of the individual problems. That is, the cameras turned off and non-compulsory attendance decisions by MoNE may have led some students to misuse and take advantage of the real problems the other students experienced.

> We have students who live in villages with no internet infrastructure. Their parents are poor and cannot afford the internet or computers. Yet some others, on purpose, do not attend the lessons. Even though they have everything, they do not attend; they say, "It is not compulsory, attendance is not accounted for." [Vt1]

The *students' individual problems*, on the other hand, emerged as *low self-confidence in skills and abilities*, *low motivation*, *nonchalance*, *loss of passion for learning*, *loss of attention,* and *isolation*. The analysis of teachers' responses referred to the possibilitythat those problems might have evolved as pseudo-individual problems in the shadow of the *socio-economic problems* and the executive decisions of ERT. Supported by a quote from a teacher, "students connect to lessons in turn with their siblings. They do not have privacy. How can I just say they have lost their passion for learning? Under such circumstances, everyone would feel helpless." [Vct2], those problems were revealed to be related more to a lack of equipment and internet, trying to connect to lessons in the same environment with other family members, and communication breaks with the teachers. However, although quite rare examples were encountered, for some students, *enhanced learning* occurred, which was defined as the silver lining of ERT in this study. The analysis of teacher responses supported the idea that for some students, the classroom environment might have included too many distractions, causing them to lose their attention easily. Although it was quite a small number, for some students, the digital learning environment under ideal circumstances was described as appropriate.

> They do not waste time commuting to school…of course, it cannot substitute face-to-face education, but there is a good variety of instructors, learning platforms, and learning materials. If they discipline themselves, they will turn it to their benefit. [E]

Also, another discrete finding with a silver lining was about materials. Z-books were found to be a contribution that was described as more *functional*, *environmentally friendly,* and *cost-effective*. Using them reduced the waste of disposable materials, such as papers and ink, and saved teachers' time spared for copying the materials. As was expressed by one of the teachers, "particularly, solving tests using z-books is better and more practical compared to photocopied materials. Waiting for the copy machine, using papers! I wish I had discovered the use of z-books before." [L]

On the other hand, during ERT, one of the most challenging aspects for teachers was not being able to make *use of learner-centered instructional methods,* which were

described as exhaustive and time-consuming and emerged as a result of *communication breaks*. Another challenge was- the *organization of the materials and equipment*, referring to difficulties in *organizing the digital learning environment* and *arranging equipment and activities* that heavily required the psycho-motor skills of the learners.

> I try to adjust the angle of the phone or tablet and experience great difficulty preparing the environment. We are not people who have broadcasted a live lesson before. We have tablets, but as a teacher, you have to show the work and the product to students one by one. [Vt1]

Also, as an answer to the sub-research question, another finding established that the long hours spent in front of the screen with limited interaction could mean *physical and psychological disorders* and have *social long-term effects* in the long run, both for students and teachers. According to the findings, students' living a life in the virtual world would influence their perception of *reality* and cause psychological disorders such as *internet addiction*. The reduced physical activity may lead to health problems. Moreover, assignments given to students on EBA extended the time spent much more compared to teachers, which might lead to *limited physical activity* and intense feelings of *isolation*.

> I think students' spending so manyhours in front of the screen is not healthy, neither for their eyesight nor for their psychological situation. They are isolated from the social environment and stay all alone in a room during the day. [E]

Finally, the findings depicted *the lack of netiquette training among the learners* as a challenge that emerged as an ignored yet vitally significant gap in ERT. The findings indicated that students crossed the *borderline of respect in communication* on social media platforms, which *damaged peer relationships* and furthermore would breed *digital delinquency* and *legal sanctions* in the future on behalf of students. In response to the sub-research question, ERT, far-end consequences go, is susceptible to bearing physical, psychological, and social long-term effects and challenges in the long run.

> There was a case once. Two students started to quarrel and insult each other on WhatsApp. They think that the others do not see or read what they type. I also had to talk to the parents and the students. I told them that each word spelled on the digital platforms can be used as evidence against them and this could cause much legal harm in the future. [E]

In sum, the most challenging aspects throughout ERT emerged as dealing with digital materials and equipment; motivating and engaging students; inappropriate language use of learners in the digital platforms with each other; and isolation as a result of not being able to achieve direct contact with learners.

Conclusion, Discussion, and Implications

In this study, through a phenomenological perspective, it was aimed to discover the meaning and patterns of the phenomenon of ERT as it appeared in the definitions and descriptions of public high school teachers' minds. To achieve the purpose of the study, five teachers were interviewed using a semi-structured interview form. Delving into the data for - answers with respect to teachers' descriptions of teaching practices and the meanings of far-end consequences with respect to ERT, it was found out that the structure through which the elements of teaching occurred has been deeply influenced.

The literature in ERT established sound grounds for the discussion of the findings. According to Wilder (2020), the loss of a brick-and-mortar classroom is a factor that forced lectures and textbook heavy instruction, inhibiting students' sense-making. In comparison to the findings of this study, - the unfriendly digital learning environment with quite limited communication and interaction with students led teachers to define their teaching as mechanical versus meaningful, devoid of concretizing and actualizing the information. Assuming the fact that the execution of ERT in each country may present exceptional situations, the way ERT was executed might have paved the way for mechanical teaching at the level of secondary education in Turkey. As both teachers and students were not allowed to turn on their cameras, the possibility of building a good rapport with students, establishing more learner-based teaching,and making informed decisions about students' learning progress might have been reduced (Clay, 2020; Bayburtlu, 2020). Studies have emphasised that to establish a good rapport with learners, - "immediacy behaviors" are required, which include both verbal and nonverbal acts that communicate concerns, interests, encouragement, and caring (Wilson et al., 2010; Lammers & Gillaspy Jr., 2013). Yet, the impossibility of seeing students' faces due to the cameras turned off policy can be said to have undermined communicating effectively, responsiveness, supporting and monitoring, sharing, and bonding (Murphy & Rodriguez-Manzanares, 2012). As it was suggested by Hargreaves (2020), the unfriendly digital learning environment leads to a "tenuous student-teacher relationship." Students not being able to see each other as well as their teachers on the screen "depersonalizes the classroom environment" (Jones& Kessler, 2020).

On the other hand, as suggested by Zheng et al. (2020), in developing countries, the challenge of digital learning is considered a result of the limited scope of internet services and equipment needed by learners. Lack of equipment, such as computers, tablets, or mobile phones; and poor/lack of internet infrastructure (Sari & Nayir, 2020; Bayburtlu, 2020), particularly for students living in rural areas, might have been other reasons undermining teachers' instruction. Furthermore, no assessment policy during ERT for almost an entire academic year was seen by teachers as a reason for the plummeting attendance rates. In other words, the results showed that the assessed curriculum exerted its impact on teaching and learning practices in parallel to the unstable announcements related to exam procedures. Except for those indigenous results about Turkey, the literature suggests that there might be several other reasons. On the one hand, teachers' definitions of ERT experiences as a sense of paralysis, loneliness, and exhaustion might be related to teacher e-learning barriers, such as the confidence, knowledge, belief, and experience of teachers, as described by Mailizar et al. (2020), or insufficient knowledge and experience related to ERT, as - noted by Sari and Nayir (2020). More specifically, for instance, according to Van der Spoel et al. (2020), teachers' perceptions of technology are an important indicator, and the use of smart boards and PPTs identified as technology used by most teachers are "traditional pedagogical technologies, as is the case in this study. Furthermore, alongside "teachers' technological knowledge," which is about the use of different technological tools, "teachers' technological pedagogical content knowledge" (Rap et al., 2020) presents importance referring to the production and provision of the teaching materials for each subject per se.

On the other hand, the far-end consequences of ERT mainly emerged as social injustice, the probability of unemployment, digital delinquency, health problems, and psychological disorders. As uttered by Pini (2020), the (dis)connection is a new dimension of inequality that became more prominent during the pandemic and created a digital divide that emerges "when a group's access to digital technologies and resources differs based on a group's race, socioeconomic status, or national identity" (McLaughlin & Resta, 2020). In this study, the socioeconomic status of students' emerged as a prominent factor to be considered. Therefore, first of all, based on the evidence derived from studies in the literature compared to the findings, the technical problems explored in this study, such as poor/lack of internet infrastructure and a lack of personal equipment, such as computers and tablets, should be optimized, as this is the minimum prerequisite for the execution of ERT. Secondly, the execution decisions of ERT at the ministerial level should be reconsidered, reevaluated, and adjusted in terms of cameras turned off policy and noncompulsory attendance to prevent arbitrary attendance and thereby diagnose learners who are indeed in need of help in terms of complementary back-up teaching practices. As is underlined by Doepke (2020), we must consider that learning is a cumulative act and "learning losses, once incurred, are difficult or impossible to compensate for later on" (p. 32). Thirdly, teachers should be given technical support and guided when needed. Additionally, as suggested by Rap et al. (2020), high-quality teacher professional development should be provided to teachers, including technological pedagogical content knowledge (Van der Spoel et al., 2020), adaptive expertise, and praxis-based applications to boost teachers' motivation and belief in themselves and gain experience in the methodological integration of ICT.

As a significant finding to be discussed, the effect of assessment and evaluation bears noticeable aspects to be considered. The results indicated that assessment and evaluation practices could be mentioned as playing a distinctive role in giving direction to the implementation of teaching practices as well as shaping learners' actings. That is, the results revealed that due to a lack of assessment practices, teachers were not able to make informed decisions about students' progress, nor could they re-plan future topics, which could turn the later teaching practices into a vicious circle. In this respect, what is to be considered is focusing our perspective on the alternative assessment methods. Instead of drawing students' attention to summative results, which focus on the ends of learning, adjusting the assessment approaches (Chen et al., 2020), and making use of performance-based assessment tools and procedures can be a solution for low attendance and motivation. As noted by Nasr (2020), during the uncertainties of the COVID-19 pandemic, a performance-based assessment that teachers would monitor flexibly would be much more supportive, nurture growth in learning holistically, and provide human-first approach to assessment. Additionally, a multimodal assessment, which requires the assessment of multiple modes (i.e., written words, visual images, or moving digital images) (Ross, Curwood & Bell, 2020), focusing on the growth of learners and assigning different tasks to learners, could be suggested as a solution for assessment based on human-centered instruction.

Another point to be discussed is the result of the pseudo-individual problems of the vocational high school learners, which could actually be related to technical issues, execution decisions, psychological problems, and the socio-economic problems of students' families. That is, the findings revealed that at the first level, following the lessons on the small screen of a mobile phone or not being able to connect to the lesson due to internet problems, together with the impossibility of financing these resources in the families, might be related to students' loss of motivation for learning. At the second level, due to financial problems, students mostly share the same room with other family members, yet this situation would create distractions that would inhibit the learning process. Finally, the psychological crisis of adolescence combined with the lack of peer support might be one of the reasons resulting in unwillingness and nonchalance among learners. Assuming that the technical and ERT execution decisions were optimized, students' perceived social support should be established, which identifies the support received from other surroundings (Yildirim, 2008), boosting both physical and mental health (Zheng et al., 2020). In cognitive behavior theory, it is noted that a lack of social support pushes learners to spend much more time on mobile and become cyber-addicted (Zheng et al., 2020; Pini, 2020). As it emerged in this study, teachers were aware of the dangers of jeopardizing the well-being of students. They were engaged in actions to maintain a good rapport among parents, students, peers, and themselves. In this respect, the literature suggests that teachers should prioritize the well-being of students over their academic achievements during the pandemic and beware that teacher resilience in coping with problems nurtures students' well-being (Wong and Moorhouse, 2020). Additionally, as cited by Zheng et al. (2020), teachers should provide instant support and information when needed, backup their internet self-efficacy to reduce the tendency of dropouts, and provide timely, practical, and multipronged pedagogical support (Tam, 2020). In this respect, peers can also be grouped to help each other promote participation in the lesson. Also, the length of time spent in front of the screen should be reconsidered and shortened by the decision-makers, as it is too long to keep learners' and teachers' physical and mental health stabilized under the circumstances of the pandemic. As a last point, netiquette training for the learners, which encompasses boundaries of respect in communication on digital or social media platforms, can be recommended to be considered by decision-makers to maintain peer relationships and prevent possible digital delinquency.

This study is limited in that the participants were selected from a limited scope of subjects taught at school and therefore might have missing parts that have not been explored yet. Although the sample of teachers included a variety of subjects, including both vocational and cultural courses, the study still lacked the perspective of other subject teachers. Although phenomenology as a design aims to reveal the shared perspective and a common understanding of the consciousness of human beings in terms of the phenomenon of ERT, the results of the study cannot be generalized to all teachers working in public high schools.

Regarding future implications, as the method of this study has been described clearly, it can be replicated. Without understanding how the phenomenon was understood by the

major implementers, it would be unstable to take further decisions. Therefore, more studies are needed to gain a more vivid and detailed picture of the phenomenon of ERT. Also, as the aspect of learning was reflected through the lens of teachers in this study, another phenomenology can be conducted with a group of learners to gain supportive data or to have a comparative point of view, which may produce a counter-comparative perspective.

Practically, this study can act as a means of self-awareness and self-regulation for teachers due to the phenomenology design, which requires thinking and reflecting on one's own ways of thinking, consciousness, and experiences. As was verbally expressed, sharing, and thinking about their own actions and thoughts was a "release and relief of thoughts" for the participants who volunteered to contribute to this study. Personal gains aside, this study can provide decision-makers with insights for considering the effectiveness of the execution of ERT and using the results to improve the status of ERT practices during the pandemic and similar future emergent cases.

Ethics Committee Approval: The study was conducted after the approval of the METU Scientific Research and Publication Ethics Committee was taken. (Date: 15 April 2021, Session no: 132-ODTU-2021)

Informed Consent: Informed consent forms were taken from all the participants.

Peer-review: This study was peer-reviewed.

Authors' Contributions: This study is single-authored.

Conflict of Interests: The author has no conflict of interest to disclose.

Financial Disclosure: The author declared that this study had received no financial support.

References

American Psychological Association (APA). (2020). Available from: https://www.apa.org/practice/programs/dmhi/research-information/social-distancing

Bakioglu B. & Cevik, M. (2020). COVID-19 pandemisi surecinde fen bilimleri ogretmenlerinin uzaktan egitime iliskin gorusleri. [Science Teachers' Views on Distance Education in the COVID-19 Pandemic Process], Turkish Studies, 15(4), 109-129. https://dx.doi.org/10.7827/TurkishStudies.43502

Baran, E. 2014. A Review of Research on Mobile Learning in Teacher Education. *Journal of Educational Technology & Society*, *17*(4), 17–32. https://www.jstor.org/stable/pdf/jeductechsoci.17.4.17.pdf?seq=1

Bayburtlu, Y. S. (2020). Covid-19 pandemi donemi uzaktan egitim surecinde ogretmen goruslerine gore Turkce egitimi. [Turkish Education During Covid-19 Pandemic Distance Education Process]. *Turkish Studies*, *15*(4), 131-151. https://dx.doi.org/10.7827/TurkishStudies.44460

Chen, K., Chen, Y., Ling, Y. & Lin, J. (2020). The individual experience of online chemistry teacher education in China: Coping with COVID-19 pandemic. *J. Chem. Educ.*, *97*, 3265-3270. https://dx.doi.org/10.1021/acs.jchemed.0c00581

Clay, C. (2020). Planning and assessing during difficult times. *Literacy Learning: The Middle Years*, *28*(3). https://search.informit.org/doi/abs/10.3316/informit.431260138397491

Code, J. Ralph, R. & Forde, K. (2020). Pandemic designs for the future: Perspectives of technology education teachers during COVID-19. *Information and Learning Sciences*, *121*(5/6), 419-431. DOI: 10.1108/ILS-04-2020-0112

Darling-Hammond, L. & Hyler, M. E. (2020) Preparing educators for the time of COVID … and beyond. *European Journal of Teacher Education*, *43*(4), 457 465. https://doi.org/10.1080/02619768.2020.1816961

Doepke, M. (2020). Children education amidst the coronavirus pandemic: An economic perspective. *Recent Socioeconomic Issues*, *4*, 32-35. https://www.jef.or.jp/journal/

Fraenkel, J., Wallen, N. E. & Hyun, H. H. (2012). *How to design and evaluate research in education*. (8th Ed.). McGraw Hill.

Hadar, L. L., Ergas, O., Alpert, B. & Ariav, T. (2020) Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis, *European Journal of Teacher Education*, *43*(4), 573-586, https://doi.org/10.1080/02619768.2020.1807513

Hargreaves, A. & Fullan, M. (2020). Professional capital after the pandemic: Revisiting and revising classic understandings of teachers' work. *Journal of Professional Capital and Community*. DOI: 10.1108/JPCC-06-2020-0039

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The Difference between Emergency Remote Teaching and Online Learning. EDUCAUSE Review. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Husserl, E. (1970). *The idea of phenomenology*. Nijhoff

Jones, A. L. & Kessler, M. A. (2020). Teachers' emotion and identity work during a pandemic. *Front. Educ.*, *5*(583775). doi: 10.3389/feduc.2020.583775

Lammers, W. J. & Gillapsy Jr., J. A. (2013). Brief measure of student-instructor rapport predicts student success in online courses. *International Journal for the Scholarship of Teaching and Learning*, *7*(2). https://doi.org/10.20429/ijsotl.2013.070216

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

MacIntyre, P. D., Gregersen, T., & Mercer, S., (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, *94*, 1-13. https://doi.org/10.1016/j.system.2020.102352

Mailizar, Almanthari, A., Maulina, S. & Bruce, S. (2020). Secondary school mathematics teachers' views on e-learning implementation barriers during the COVID-19 pandemic: The Case of Indonesia. *EURASIA Journal of Mathematics, Science and Technology Education*, *16*(7), 2-9. https://doi.org/10.29333/ejmste/8240

McLaughlin, R. & Resta, P. (2020). On systemic digital equity, systemic inclusion, and the teacher librarian in the pandemic era, Part 1. *Teacher Librarian*, *48*(1), 8-14. https://www.digitalequity.us/wp-content/uploads/2020/10/TLMcLaughlinRestaNCDEPart1.pdf

Murphy, E., & Rodríguez-Manzanares, M. A. (2012). Rapport in distance education. *International Review of Research In Open & Distance Learning*, *13*, 167-190. https://files.eric.ed.gov/fulltext/EJ979659.pdf

Nasr, N. (2020). Teachers as Students: Adapting to Online Methods of Instruction and Assessment in the Age of COVID-19. *Electronic Journal For Research In Science & Mathematics Education*, *24*(2), 168-171. https://files.eric.ed.gov/fulltext/EJ1261622.pdf

Patton, M. Q. (1990). Qualitative Evaluation and Research Methods. Newbury Park, CA: Sage.

Petrie, C. (2020). Current opportunities and challenges on Covid-19 in education. Spotlight: Quality education for all during Covid-19 crisis. OECD/HundredResearch Report #011. https://hundred-cdn.s3.amazonaws.com/uploads/report/file/15/hundred_spotlight_covid-19_digital.pdf.

Pini, M. (2020). Digital Inequality in Education in Argentina. *WebSci'20 Companion*, July 6-10, Southampton, United Kingdom. https://doi.org/10.1145/3394332.3402827

Rap, S., Feldman-Maggor, Y., Aviran, E., Shwarts-Serebro, I., Easa, E., Yonai, E., Waldman, R. & Blonder, R. (2020). An applied research-based approach to support chemistry teachers during the COVID-19 pandemic. *Journal of Chemical Education*, *97*, 3278-3284. https://dx.doi.org/10.1021/acs.jchemed.0c00687

Ross, J., Curwood, J. S. & Bell, A. (2020). A multimodal assessment framework for higher education. *E-Learning and Digital Media*, *17*(4), 290–306. DOI: 10.1177/2042753020927201

Sari, T. & Nayir, F. (2020). Challenges in Distance Education During the (Covid-19) Pandemic Period. *Qualitative Research in Education*, *9*(3), 328-360. http://qre.hipatiapress.com/

Tam, P-C. (2020). Response to COVID-19 'Now I send you the rays of the sun': A drama project to rebuild post-COVID-19 resilience for teachers and children in Hong Kong. *Research in Drama Education: The Journal of Applied Theatre and Performance*, *25*(4), 631-637. DOI: 10.1080/13569783.2020.1816816

Van der Spoel, I., Noroozi, O., Schuurink, E. & Van der Ginkel, S. (2020). Teachers' online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *European Journal of Teacher Education*, *43*(4), 623-638. DOI: 10.1080/02619768.2020.1821185

Van Manen, M. (2017). But is it phenomenology? *Qualitative Health Research,* 27(6), 775–779. DOI: 10.1177/10497323176995

Wilder, S. (2020). Remembering what matters in teaching and learning of mathematics. *Ohio Journal of School Mathematics*, *86*, 22-28. https://library.osu.edu/ojs/index.php/OJSM/article/view/7621

Wilson, J. H., Ryan, R. G., & Pugh, J. L. (2010). Professor-student rapport scale predicts student outcomes. *Teaching of Psychology, 37*, 246-25. https://journals.sagepub.com/doi/10.1080/00986283.2010.510976

Wong, K. M. & Moorhouse, B. M. (2020). The impact of social uncertainty, protests, and COVID-19 on Hong Kong teachers. *Journal of Loss and Trauma*, *25*(8), 649-655. DOI: 10.1080/15325024.2020.1776523

World Health Organization. (2020, March 18). Mental health and psychosocial considerations during the COVID-19 outbreak. https://www.who.int/docs/default-source/corona-viruse/mental-health-considerations.pdf

Yildirim, I. (2008). Relationships between burnout, sources of social support and socio demographic variables. Social Behavior and Personality. *Scientific Journal Publishers 36*(5), 603-616. https://doi.org/10.2224/sbp.2008.36.5.603

Yildirim, A. & Simsek, H., (2016). *Sosyal bilimlerde nitel arastırma yontemleri* [Qualitative research methods in social sciences]. (10. baskı). Seçkin Yay.

Yi, Y. & Jang, J., (2020). Envisioning possibilities amid the COVID-19 pandemic: Implications from English language teaching in South Korea. *Tesol Journal*., *11*(3) https://doi.org/10.1002/tesj.543

Zheng, F., Khan, N. A. & Hussain, S. (2020). The COVID 19 pandemic and digital higher education: Exploring the impact of proactive personality on social capital through internet self-efficacy and online interaction quality. *Children and Youth Services Review*, *119*. https://doi.org/10.1016/j.childyouth.2020.105694

Author

Nevin AVCI

Curriculum Theory, Curriculum Development & Evaluation, Curriculum Implementation, Curriculum & Instructional Design, 21st Century Skills

Contact

PhD(c) Nevin AVCI

Middle East Technical University, Graduate School of Social Sciences, Department of Educational Sciences, Curriculum and Instruction, 06800 / ANKARA

E-mail: nevinavci06@gmail.com