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Distance Education and Remote Literacy Instruction: Experiences and Opinions of First-Grade Teachers During the Covid-19 Pandemic

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Abstract

First-grade students, their parents, and teachers met distance education (DE) and remote literacy instruction (RLI) as a result of the quarantine measures and rigorous regulations implemented to stop the spread of COVID-19. The aim of this study was to investigate first-grade teachers' experiences and opinions on RLI in DE during the COVID-19 pandemic. Qualitative research paradigm and case study design were used to gather the data. Focus group interviews using a semi-structured interview form were carried out as a data collection method. The study group included 15 first-grade teachers working in public primary schools in Istanbul. Data were collected online, and content analysis was applied. The findings revealed that the teachers perceived DE as a crisis because they were more fatigued mentally. They could not communicate with their parents properly. They could not teach values. They could not manage the classroom. DE was also an opportunity because the teachers were less fatigued physically. They could develop professionally. While teaching online, teachers used various materials. They could apply different activities and instructional methods. They achieved student-student interaction as well as student-teacher interaction. Teachers could assess both reading comprehension and writing not only during the course but also after the course. They had some expectations and plans about school life after DE although they predicted to have some problems. They thought they could teach literacy online if they had to. The results highlighted the need for a sense of belonging, collaboration, and positive relationship among teachers, students and parents in RLI.

Keywords: COVID-19, distance education, first-grade teachers, remote literacy instruction

Introduction

The legacy left by COVID-19 pandemic to humanity from 2020 to the present and future with long-term regional and global assessments will be better understood in the following years. During COVİD-19, countries experienced a period with options ranging from restricting to completely stopping all social activities in order to ensure social distance, and then a period in which restrictions were eased or even lifted. Although the policies followed by some states during the pandemic have produced positive constructive results, some states have faced a transformation process that includes economic, social and psychological destruction, social rebellion and collapses (Sánchez Amate et al., 2021; Timmons et al., 2021).

As a global health crisis, COVID-19 pandemic has profoundly affected education systems, radically changing learning and teaching practices in traditional classroom environments. As of March 2020, countries applied diluted education or hybrid education (Barnett et al., 2021) as well as distance education (DE) and online education (Greenhow et al., 2021) according to their conditions and educational policies. In 2021, many countries switched to face-to-face education (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2021; UNICEF, 2022). Distance education with the support of parents and technological devices used in online education was expressed as an "educational renaissance" (Harris & Santilli, 2021) and

an irreversible "school evolution" (Carpenter & Dunn, 2020). However, the opportunities and risks of the process should be evaluated holistically, including all educational levels from early childhood to higher education (Backes et al., 2021).

The volatility–uncertainty–complexity–ambiguity (VUCA) world showed its effects on education during the pandemic (Hadar et al., 2020). Some students could not access technological resources, and education, so learning losses increased with the prolonged process, psycho-social support became the primary need of children, and the meaning of physical school has changed. These can be considered as the obvious reflections of VUCA World in education (Demir & Yıldızlı, 2022). Foster et al. (2021) asserted the concepts of "technology, human and collaboration" would be on the agenda after the pandemic.

The functions of education in economic, psychological, social, and sustainable development as well as the policies that countries respond to the pandemic with their resilience and agility was more vital than ever (Lepeley et al., 2021). It was predicted that nearly 7 million students from primary to secondary education could not attend school due to economic reasons caused by the pandemic (Azevedo et al., 2020). Learning losses were expected to reach irreversible rates (Haeck & Lefebvre, 2020). The learning loss studies (Ardington et al., 2021; Coşkun & Kara, 2022; Skar et al., 2022) and international reports

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examining different age groups and disciplines during the pandemic supported these predictions (Bao et al., 2020; Neuman & Powers, 2022; Nugroho et al., 2021; UNICEF, 2022). On the contrary, DE increased students' academic success, students could discover and use different types of educational resources, and there was an increase in students' academic self-confidence and self-regulation skills (Demir & Yıldızlı, 2022; Jandrić & McLaren, 2021). Although these controversial results were explained by teacher qualifications (Ata et al., 2021), and parents' homeschooling qualifications (Sonnenschein et al., 2021), research and reports stated that the result of rapid dissemination of DE practices depended on the socioeconomic level of students (UNESCO, 2021; UNICEF, 2022).

Distance education in primary schools is specifically important because children get to know their peers, school, and social life; develop their attitudes and values; and gain basic literacy skills, life skills as well as soft skills in primary school (Alsubaie, 2022; Lepeley et al., 2021). Focusing on the opinions of parents, students, and teachers about early childhood and primary school literacy instruction during the pandemic, researchers investigated the design and planning for school processes and routines (Kim, 2020), technology and its use in literacy content (Ata et al., 2021), home environment qualities (Guo et al., 2021; Sonnenschein et al., 2021), control, teacher competencies, methods and techniques (Dotan et al., 2021; Mankki, 2022), learning loss (Coşkun & Kara, 2022; Skar et al., 2022), ease and difficulties brought by the process (Chamberlain et al., 2020), level of parent support (Demir & Yıldızlı, 2022; Sayko, 2020), attitude towards DE (Karalar & Sidekli, 2021), absenteeism in and evaluation of DE (Ciampa & Jagielo-Manion, 2021) and values (Gultom et al., 2022). On the other hand, the experiences of first-grade teachers were left behind. The insights of first-grade teachers are significant as they are the main actors/actresses on the stage, and the results will also contribute to the literature.

The remote literacy instruction (RLI) started in Türkiye in March 2020 with the closure during the pandemic, and continued after a short face-to-face adaptation process in September 2020. Although face-to-face education was introduced intermittently, literacy instruction was carried out remotely for a long time with devoted teachers, using the Ministry of National Education's (MoNE) platform (Education Informatics Networks-EIN) and/or different platforms. In this process, educational discoveries, experiences, and achievements of students with their teachers are cornerstones of many soft skills such as literacy, problem-solving, and communication needed in the following years (Alsubaie, 2022). With literacy instruction, children can develop other 21st-century literacy skills (Bozgun et al., 2022), be open to language stimuli in written and visual media, and become more ready for cognitive and affective development than before (Ata et al., 2021). Learning losses that may occur in this process may be the beginning of irreversible cognitive, social, and economic losses in the future.

In the changing conditions of the VUCA world, determining teachers' insights on RLI in DE in Türkiye may be utilized for improvements towards opportunities and precautions against risks. Thus, educational plans can be reviewed. The results of this study will contribute to policymakers, educators, parents, and other stakeholders in education within Türkiye. Moreover, the results will also contribute to the international literature by revealing what happened in Türkiye about RLI in DE during the pandemic. Therefore, the aim of this study was to examine first-grade teachers' experiences and opinions on RLI in DE during the COVID-19 pandemic in Türkiye. The study was guided by the following research questions:

1. What did first-grade teachers experience that they described as a crisis during DE?

2. What did first-grade teachers experience that they described as an opportunity during DE?
3. How did first-grade teachers teach literacy during DE?
4. How did first-grade teachers assess literacy during DE?
5. What do first-grade teachers think about school life after DE?

Methods

Research Design

In this study, qualitative research paradigm and case study design were used to raise the questions "how?" and "why?", and the researchers had little control over the case (Yin, 2002). The case study design was used to examine DE and RLI due to the COVID-19 pandemic in a multifaceted, systematic, and in-depth manner (Cohen et. al., 2011; McMillan, 2000; Patton, 2002) and to collect data in order to explain concepts, facts, relationships (Merriam & Tisdell, 2015). A case study should include the following steps: (a) developing the research questions, (b) developing the sub-problems of the research, (c) determining the situation to be studied, (d) choosing the study group, (e) collecting the data and associating the data with the sub-problems, (f) analyzing and interpreting the data, and (g) reporting the findings (Cohen et. al., 2011). In this study, the mentioned steps were applied sequentially. Distance education due to the COVID-19 pandemic was considered as a case, and this design was preferred in order to develop a detailed understanding of this situation by examining the experiences and opinions of first-grade teachers. The research design and flow is given in Figure 1.

Study Group

Convenient sampling method, one of the purposive sampling methods, was used in the study. In order to add speed and practicality to the research, convenient sampling method was preferred, and first-grade teachers who were close to the researchers and easy to reach constituted the study group of the research (Yıldırım & Şimşek, 2011). Several criteria were taken into consideration to eliminate the problems in purposive sampling methods (Knight et al., 2013). First, the study group consisted of first-grade teachers who were working in state primary schools in MoNE in İstanbul and teaching literacy in the 2020–2021 fall and spring semesters. Second, the teachers were informed about the aim of the study and how to contribute to the study. Next, teachers were informed that the interviews would be recorded, and the transcriptions would be produced. Finally, 15 teachers from five different primary schools accepted to participate in the research voluntarily. Characteristics of the participants are given in Table 1.

As seen in Table 1, 10 female and five male teachers participated in the study. Most of the teachers ($N=12$) were 40 years old or younger. Nine teachers were undergraduates, four of them had Master's degrees, and only two of them had Ph. D. Only three teachers have taken pre-service courses or in-service training about DE. The teachers were teaching students with low income ($N=10$) and medium income ($N=5$). The majority of the teachers ($N=12$) were teaching in classes with 30 to 40 students enrolled. However, 20 to 30 students attended their classes ($N=11$) regularly.

Data Collection Tools

A semi-structured interview form developed by the researchers after the literature review was used in the study. In order to ensure the content validity of the draft interview form, two experts were consulted in terms of clarity and suitability of the questions in line with the aim and conceptual framework of the study. The experts suggested that some questions should be rewritten in a more general way because they were very detailed. The semi-structured interview form was modified in line with their suggestions. The interview form included questions about the characteristics of the participants and 15 open-ended questions (Appendix 1).
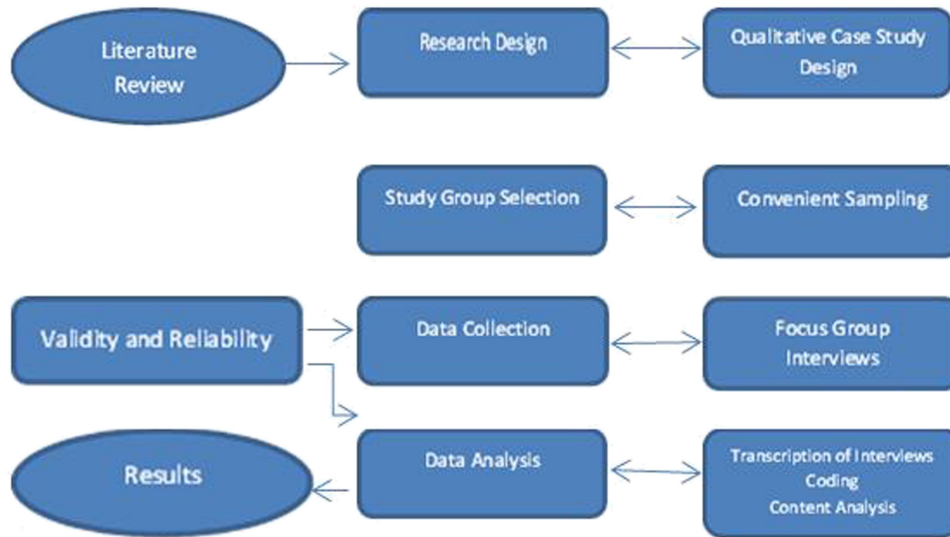
Figure 1.
The Research Design and Flow.

Data Collection

The data about experiences and opinions of first-grade teachers about DE and RLI during COVID-19 pandemic were collected via focus group interviews. Focus group interview was preferred as a data collection method because of its advantages. First, it saves time. Second, it is more efficient than personal interviews in terms of collecting information about individuals' feelings, thoughts, ideas, and perspectives. Third, it creates less tension among participants compared to other data collection methods. Next, the group members do not feel lonely or under pressure because the interview is carried out collectively within the group; therefore, sharing information becomes easier and more sincere compared to one-on-one interviews. Finally, in contrast to personal interviews, participants can think aloud and feel free to say what they think, discuss with others about counter-arguments, and change their opinions as the discussion proceeds like in informal life settings (Krueger & Casey, 2000). Due to the interaction during the focus group interviews among the participants, the information is deeper than that

of personal interviews (Kurasaki, 2000). In order to avoid this interaction from becoming a disadvantage, such as causing the participants to direct each other, the researchers led the passive participants to convey their opinions as long as the active ones (Patton, 2002).

A WhatsApp group was used to determine the date and time of the meetings. The participants were categorized into two groups in terms of their availability for the meetings. The date, time, and link of the meetings were shared with the appropriate participants. The researchers conducted Zoom meetings with the participants, and each group attended two online focus group interviews. The first interview with each group began with meeting each other (both the researchers and the participants), and continued sharing experiences and opinions in a more conversational atmosphere. The first interview lasted for 40 minutes. The second interview were conducted using the semi-structured interview form developed for the study. In the second interview, the questions were elaborated if any clarification was needed, and in-depth data were collected with probing questions in order to expand on the opinions. The second focus group interviews lasted for 120 minutes. The data were collected in 2020–2021 spring semester, and interviews were recorded.

Ethical Considerations

Participants were informed about the research purpose and the focus group interview method. Informed consent from all participants was obtained. The study was approved by Ethics Committee of Nevşehir Hacı Bektaş Veli University (Approval no: 2021.04.102, Date: 16.03.2021).

Data Analysis

Content analysis was used to analyze the data about the experiences and opinions of the teachers. Content analysis was preferred to uncover the consistencies and meanings of the qualitative data (Patton, 2002), and to reveal the hidden facts within the data (Cohen et. al., 2011). The answers given by the teachers were transcribed. For the analysis, the text was segmented regarding the questions, codebook coding was created and each researcher coded the data independently. For consistency, the codes were checked by the researchers whether their use of codes has changed over time (Krippendorff, 2004). In other words, the researchers independently revised the codes that they labeled after a period of time. The researchers met online and examined the similarities and differences among the assigned codes. Then they combined their coding systems after they reached a common understanding. Finally, they reported the findings.

Table 1.
Characteristics of the Participants

		N
Gender	Female	10
	Male	5
Age	25–30	1
	31–35	5
	36–40	6
	41–45	2
	46+	1
Graduation Level	Undergraduate	9
	Master's Degree	4
	Ph. D.	2
Pre-service courses or in-service training taken about DE	No	12
	Yes	3
Socio-economic status of parents	Low	10
	Medium	5
Number of students enrolled in the classes	25–30	3
	30–35	6
	36–40	6
Number of students who attended classes regularly	20–25	8
	26–30	3
	31–35	2
	36–40	2
Total		15

Validity and Reliability

Validity shows the extent to which research data are consistent with real life. It is examined in two categories as internal and external validity (Lucas, 2003). Internal validity assesses whether the study findings are accurate/correct or not while external validity deals with the extent to which research findings can be generalized to different contexts (Merriam & Tisdell, 2015). For the validity of the research, codes, and themes are clearly displayed to assist researchers working on similar topics. When presenting the findings of the study, direct quotations were included in order to reflect the opinions of the teachers more accurately. Therefore, sample sentences from explanations of the teachers were selected to represent each category in the best way and included in the findings. Related studies were reviewed to ensure consistency and discussed in discussion (Cohen et. al., 2011).

Reliability is the degree of consistency between the comprehensiveness and correctness of the data (Bogdan & Biklen, 2006). Interrater reliability was measured to test the level of consistency between coders and to make sense of the way coders encode data. Interrater reliability was calculated to determine the reliability of the coding step and/or to determine the validity of the final coding structure. Interrater reliability (81.5%) was calculated via the reliability formula proposed by Miles and Huberman (1994), which is sufficient as it is expected to be at least 80% (Miles & Huberman, 1994; Patton, 2002). Once the researchers had a mutual understanding, they integrated their coding before presenting the findings. When coding was finished, the researchers invited all participants to Zoom meetings, and all the teachers attended to the appropriate meeting when they were available. The researchers shared the findings of the study, and the teachers confirmed them. The aim of these meetings was to get confirmation from the participants and to ensure the reliability of the study. According to Lincoln and Guba (1985), reliability in qualitative studies can be assured using some strategies such as confirmation of participants.

Results

The findings of the current study revealed that reflections of first-grade teachers on DE and RLI during COVID-19 pandemic were divided into five themes: DE as a crisis, DE as an opportunity, teaching in DE, assessment in DE, and school life after DE. They were presented based on the themes, subthemes, and quotes in the following sections.

Theme 1: DE as a Crisis

The theme "DE as a crisis" was divided into six sub-themes. The sub-themes and codes are given in Table 2.

As seen in Table 2, the teachers were more tired mentally due to the problems caused by DE. They tried to overcome these problems with the support of their colleagues. T1 stated, *"I frequently wonder whether I can teach them well, or whether I can finish all the content, or I can achieve it in DE."* T5 explained how they coped with this problem, "*We are constantly on the phone with our colleagues. We are in contact somehow. We share problems and discuss solutions. We help each other."*

Communication with parents was another matter in DE. Parents were too informal. They intervened in the courses and disturbed the teachers a lot. They competed and led students to compete with each other. In addition, they were not good role models for their children. T3 remarked on the situation, *"The parent is always in front of us next to the child. Obviously, it is a disadvantage for the child, too. ... when I am teaching, the parent is feeding the child. When the students are reading one by one, the child asks her mother, 'Where are we, mommy?' For instance, when I ask something, the mother answers. I can hear it because the microphone is on."* T2 explained, *"I turned off the children's microphones, and the parents turned them on. Sometimes the*

Table 2.
DE as a Crisis

Theme	Sub-Theme	Code (Frequency)
DE as a crisis	• More mental fatigue	• Colleague support (15)
	• Communication with parents	• Too informal relations (12)
		• Parents intervention (10)
		• Competition between parents (8)
		• Parents not being role models (7)
	• Values education	• Honesty (11)
		• Respect (10)
		• Listening to others (10)
		• Reading habit (7)
		• Enjoying reading (7)
		• Making self-decision (5)
		• Patience (5)
		• Persistence (5)
		• Industriousness (5)
		• Tidiness (5)
		• Cleanliness (5)
	• Teachers' room	• Physical distance (15)
		• Professional need (10)
		• Social need (8)
		• Emotional need (8)
	• Health problems	• Poor sitting posture (15)
		• Low back pain (13)
		• Long screen time (10)
		• Eye problems (10)
		• Sedentary lifestyle (8)
	• Classroom management	• Observing students (15)
		• Sitting posture (10)
		• Grasping a pencil (8)
		• Writing (8)
		• Communication (8)
		• Listening (8)
		• Classroom atmosphere (7)
		• Classroom privacy (7)
		• Childlike teacher (5)
		• Emotional bond (5)
		• Sharing (3)
		• Doing together (3)
		• Excitement (2)

parents texted me on WhatsApp, for example, 'Mehmet did not speak, he is crying now.' or 'He has got offended because you didn't listen to him. He won't attend the course anymore.' We have overcome such difficulties by explaining to the parents again and again."

The teachers agreed that they could not help students learn/acquire values in DE. They mentioned such values as respect, listening to others, reading habits, enjoying reading, making self-decision, honesty, patience, persistence, industriousness, tidiness, and cleanliness. For values education, T7 stated, *"I think we haven't taught the habit of listening. I am anxious because listening is a very good habit and it should be acquired in the classroom."* He also expressed his motto: *"The one who does not listen cannot learn!"* T9 added, *"We couldn't teach honesty. A parent claimed that she did not tell the answer to her child, even though she did. I asked them "How can we teach honesty?" It is not important that a student will have the most prestigious job if he is dishonest and learns fraud."* Honesty is the most mentioned value that T15 also said, *"No matter how much you try to tell the worth of truth, the children do better what they observe. One day, a student said that he did the homework although he didn't do it. When I asked him to show me his homework, he said 'In fact, I didn't do it.' Maybe not lying is the first thing we should teach."*

All teachers expressed that they felt deeply about the absence of teachers' room as well as missing the school and classroom environment. They stated that the teachers' room is a place to be together physically, to get professional support, and to meet social and

emotional needs. T12 reflected it by saying, *"There is no 10-minute break in synchronous classes. I can't even stand up during the breaks. We were drinking tea for 10 minutes at school. While we were drinking tea, we were talking about our problems and experiences in the classrooms. Teachers' room was a place to consult each other."* T4 added, *"I think what all teachers really need right now is the dust of the classroom. I think we are really addicted to the atmosphere of the classroom. I used to complain by saying 'It (the classroom) smelled like a chicken coop'. We all miss that smell. I talked to my colleagues on the phone, but I missed seeing them, being with them, chatting with them, so I missed the atmosphere of the teachers' room. We are going on teaching in 10-minute breaks, or we are preparing for the next course in DE."*

The teachers perceived DE as a crisis since it caused health problems for both teachers and students in terms of poor sitting posture, low back pain, long screen time, eye problems, and sedentary lifestyle. To illustrate, T6 expressed, *"In DE, being in front of the screen all the time makes us tired. This is a disadvantage not only for me but also for the children, because we look at the screen for a long time, and it bothers me."* T14 declared, *"I've sat in a poor posture and I have low back pains now. My eyesight has deteriorated. We sit too much in front of the screens. We were very active, and we were constantly walking around in the classroom. Teaching in a stable way affected me negatively in terms of health."*

Last but not least, classroom management was another problem faced in DE. The teachers emphasized that the inability to observe students while they are sitting, grasping a pencil, and writing was stressful for them. They felt that they couldn't ensure that children communicated well with each other because they did not listen to each other. The most important issue about classroom management was the inability to form an adequate classroom atmosphere. They said that they couldn't have classroom privacy, act like a child, establish emotional bonds with children, share something with children, do something together, and feel the excitement in the courses. To exemplify, T8 clarified it by saying, *"I want to have fun in the classroom. I want to jump. I want to sing. But I cannot do these in DE. Maybe, I am embarrassed because of the parents. However, I was more comfortable in the classroom. Most importantly, we have no classroom privacy. Actually, as teachers, we should be able to act like a child, but we cannot do it in front of the screen, and it affects the children."*

Theme 2: DE as an Opportunity

The theme "DE as an opportunity" was divided into four sub-themes. The sub-themes and codes are given in Table 3.

Table 3 illustrates that the teachers were less tired physically because they taught online. T11 illustrated, *"I am less tired physically. When you press the mute button, the students go silent. The first-grade teachers usually get very tired when they really have to silence the students in the classroom. I used to feel very tired in face-to-face classes because I didn't usually go out during breaks. I used to hang out with them in the classroom."*

Because schools were open in the first month of the first semester, the teachers thought that both students and parents got familiar with and accustomed to the teacher. Students learned how to hold a pencil and how to use books and notebooks. In addition, they learned letter and sound differences. They learned the meaning of a syllable and a word. During this period, the teachers prepared their students for online education by doing online courses every day after school, which also increased literacy rate. T13 expressed, *"In that one-month introducti on/adaptation period, we were able to teach at least how to use a notebook, where to start writing on a notebook, and how to hold a pencil."* T10 also emphasized, *"We observed the students and established*

Table 3.
DE as an Opportunity

Theme	Sub-Theme	Code (Frequency)
DE as an opportunity	• Less physical fatigue	• In front of computer (15)
	• Face-to face introduction	• Familiarizing the teacher (10)
		• Holding a pencil (8)
		• Using books and notebooks (8)
		• Letter-sound difference (7)
		• Syllable-word difference (7)
		• Online lessons (6)
		• Literacy rate (6)
	• Communication with parents	• Teacher-parents collaboration (15)
		• Parental guidance (10)
		• Competition (9)
	• Professional development	• Deficiencies of the curriculum (8)
		• Recognizing EIN* (8)
		• Using EIN* (8)
		• Research (7)
		• Creativity (7)
		• Colleague support (4)
		• In-service trainings (4)

*EIN, education informatics networks.

relationships not only with the students but also with their parents within a month's time, which helped us a lot. I think we couldn't have been successful if we had directly started online education at the beginning of the semester. I could teach them how to pronounce sounds, how to write letters, and what a syllable or a word means in that period. It was very important for me to see them and correct their mistakes face-to-face."*

As well as being mentioned as a crisis, communication with parents was also an opportunity for teachers in DE. Parents helped and collaborated with the teachers, and guided their children well. Moreover, competition between parents sometimes helped the teachers and reduced their burdens. T2 explained it in detail, *"First grade is a period in which our communication with parents is as important as literacy instruction. Everything becomes easier when we establish strong communication and relations with parents. When the relationship between the student-teacher-parent trio is strong in the first year, we will not have much difficulty in the following three years. Moreover, having their parents with/near my students has made my job easier."* T4 spoke about this issue by saying, *"We communicated more easily and established stronger relationships. It was something I had always dreamed of. I had dreamed that parents would see how I taught and took care of children in the classroom and how my relationship and communication with children were. I had also wondered what was going on at my students' homes, what kind of environment it was, and what kind of relationship they had with their parents."*

The teachers regarded DE as an opportunity in terms of professional development. They recognized the deficiencies of the curriculum, got familiar with EIN better, and started to use it. Distance education process, as a first and emergent application, encouraged the teachers to research and to attend in-service training voluntarily. It increased their creativity and colleague support. For professional development, T1 stated, *"We attended more in-service training activities because we have more time. In this sense, we have also developed ourselves in terms of using technology and EIN."* T14 signified, *"When there is a problem, people's creativity goes beyond. We learn less when everything is given to us ready-made. I think the scarcity of resources contributed to us a lot in terms of creativity."*

Theme 3: Teaching in DE

The theme "Teaching in DE" was divided into four sub-themes. The sub-themes and codes are given in Table 4.

Table 4.
Teaching in DE

Theme	Sub-Theme	Code (Frequency)
Teaching in DE	• Materials supply	• Books of MoNE* (15) • EIN** contents (15) • Internet sources (13) • Attention and memory booster kits/cards (5) • Supplementary/Reference books (5) • Developing own materials (2) • Authentic materials (2) • Popular science magazines (1)
	• Delivering materials	• Online (15) • Paper-copy (5)
	• Activities	• Fine motor skills (15) • Counting (10) • Demonstrations (8) • Writing (7) • Role-plays (5) • Educational plays (5) • Online games (3)
	• Students	• Student-student interaction (15) • Self-control (11) • Attending online courses (10) • Raise hand button (9) • Chat box (9) • Chatting everyday (2)

*MoNE, ministry of national education.
**EIN, education informatics networks.

Table 4 shows that in terms of materials, the teachers used the books of MoNE, EIN contents, Internet sources, attention and memory booster kits/cards, supplementary/reference books, authentic materials, popular science magazines, or they developed their own materials. While delivering the materials to the students, the teachers usually copied and left them at school or sent them on WhatsApp. T13 stated, *"I used the books of MoNE and I have benefited a lot from the internet and educational websites. I have prepared documents that will be useful for the learning outcomes. I prepared various speed-reading texts. I printed them and pasted them on cards. I left them at the reception at school for all my students, and the parents took them. I had no problems with that. The parents were interested in activities."* T8 expressed, *"I sent lecture videos on WhatsApp in case the students might feel the need to watch it again and again. Some students may understand the logic of what we taught later than others. They also need some extra exercises. I also assigned homework on EIN."* T6 commented on the book, *"I changed the resources I would use day by day in parallel with the need. I recommended some students to buy popular science magazines published by TUBITAK (The Scientific and Technological Research Council of Türkiye) after a while because they learned to read and write earlier than others."* T15 added by saying, *"I used all the objects at home. I used apples, pears, tangerines, walnuts, toy blocks, counting sticks and beads, clothes such as shirts, sweaters, socks, etc."* T3 said, *"The books of MoNE helped students write, but they were superficial. Therefore, I gave the essence in online courses, and I used supplementary materials as well as the books of MoNE. Moreover, there were very effective videos and digital content on EIN for initial literacy instruction."*

The teachers used different activities in DE such as fine motor skills activities, counting in groups, demonstration, air-writing, finding and fetching objects (words in a sentence), role-plays, some educational plays, and online games. T11 explained, *"At the beginning of the semester, I started to do activities to develop fine motor skills. Some of them are attaching the latches, playing dough, finger exercises, and using scissors."* T12 added by saying, *"I used to apply question-answer method using generally wh-questions, demonstration, air-writing or writing on the desk or writing on the screen or writing on the sandbox in face-to-face education. I just couldn't use writing on the sandbox in DE, but other activities compensated for the lack of it. I noticed that I didn't use to take advantage of online games in face-to-face education. I used them a lot in DE. The students really enjoyed them."*

The teachers thought that in online courses, students lacked interaction, so one of the teachers designed the last course for students to be able to talk to each other every day. At the end of the first semester, some students were able to acquire self-control, and they could attend online courses themselves without their parents' help. They could use the raise hand button to talk and reply to questions or write their opinions on the chat box. T9 said, *"I definitely created a chat environment for my students at the end of each day so that they could chat on their own and communicate with each other. At first, there were speeches-in-noise because they all wanted to speak at the same time, but they started to listen to each other and learned how to talk online over time."* T5 explained her feelings, *"Children couldn't communicate and interact with each other. This was a great deficiency for them."* T7 shared her experience, *"I had some students who were completely independent and had self-control. They could take responsibility and start the lesson. Even some of my students who learned to read and write sent their answers on the chat box."*

Theme 4: Assessment in DE

The theme "Assessment in DE" was divided into two sub-themes. The sub-themes, categories, and codes are given in Table 5.

As seen in Table 5, the teachers thought that they were not sure about assessment although they assessed reading/reading comprehension and writing/spelling both during and after the course. They emphasized that they had the biggest difficulty in assessment. T10 remarked on the difficulty of assessment by saying, *"In DE, we were insufficient in assessment. Perhaps it was the greatest difficulty. I could not observe the students effectively. I just know what the parents told me."* In terms of reading/reading comprehension, they applied reading individually, Wh- questions, rubrics, and role-plays. They also used some games such as sharing a sentence on the screen and asking the students to do

Table 5.
Assessment in DE

Theme	Sub-Theme	Category	Code (Frequency)
Assessment in DE	During the course	• Reading/Reading comprehension	• Reading individually (15) • Question-answer (15) • Doing actions (8) • Role-play (5) • Rubrics (3)
		• Writing/Spelling	• Reading and writing (15) • Checking on WhatsApp (15) • Visual and writing (12) • Describing (7) • Checking on the camera (7) • Peer-assessment (3) • Regular evaluation (2) • Air-writing (1)
	After the course	• Reading/Reading comprehension	• Question-answer (15) • Memorization (5) • Summarizing (5)
		• Writing/Spelling	• Checking on WhatsApp (15) • Regular homework (6) • Giving feedback (5)

the actions. T3 said, *"I shared a short and simple text onto the screen, I asked Wh- questions after the child read the sentence(s). I used an assessment Excel document, if the child responded correctly, I marked it. I used the assessment Excel document both in and after the courses."*

When it comes to writing/spelling, they asked the students to write on the air. They read a sentence and asked the students to write it down in their notebooks. They shared a picture or a photograph on the screen and asked the students to write a sentence about it. They asked students to write a sentence about a friend they saw on the screen. They usually checked the sentences asking students to show them on the screen or send them on WhatsApp. They sometimes used peer assessment to check the words or sentences when the students showed them on the screen. One of the teachers spared a specific day and time each week to evaluate what the students had learnedthat week.

The teachers assessed the students after the course in different ways. When they checked reading/reading comprehension, they asked the students to answer Wh- questions, to memorize a poem and send an audio/video recording, or summarize what they have read and send an audio/video recording. For the writing/spelling assessment, they asked the students to submit homework at a certain time every day. The students/the parents took a photo of what the students had written and sent it to the teacher on WhatsApp. The teachers gave feedback to each student. T4 expressed her opinions, *"I assessed both writing and reading together. First, I asked the students to do writing exercises after the lesson. In the next lesson, I had them read what they had written. If the child can read his own handwriting, it will be the sufficient level for me at the moment."* In addition, T15 said, *"I told my students "Tell the stories you have read, videotape them, and send them to me." I applauded them one by one in the courses. Reading habits, enjoying reading, and choosing the book they will read on their own are very important to me."*

Theme 5: School Life after DE

The theme "School Life after DE" was divided into three sub-themes. The sub-themes and codes are given in Table 6.

Table 6 displays that the teachers had some expectations and plans when they went back to school although they thought that school life after DE would bring about some problems. They wanted to go back to school and be in the classroom with happy children. They wanted to see children moving but not sitting all the time. They want their students to look at the teacher in the eye and share with both their teacher and friends. T14 stated her expectations, *"I expect schools to open as quickly as possible. I want to be physically with my students. I expect happy children who will be running around. I want to play different games with my students in the classroom. I want to see children looking at my eyes."*

Table 6.
School life after DE

Theme	Sub-Theme	Code (Frequency)
School life after DE	• Expectations	• Being in the classroom (15)
		• Happy children (8)
		• Children moving (8)
		• Children looking at the teacher in the eye (5)
		• Children sharing (5)
		• Children reading (5)
		• Children comprehending reading (5)
		• Children writing (5)
		• Children loving reading (3)
	• Plans	• Blended learning (4)
	• Problems	• School culture (10)
		• Classroom management (6)

The teachers listed some academic learning outcomes such as being able to read, being able to understand what they have read, and being able to write. They wanted their students to acquire reading habits as an affective dimension of education. The teachers also emphasized that they wanted to use online education together with face-to-face education after DE. T5 explained her plans, *"This process especially provided us with material diversity. I will use these digital materials in face-to-face education. I can give online courses and do activities with students during the holiday so that they will not stay away from school during that period. I can give online courses for students who leave behind to help them reach others."*

The teachers were also worried about the problems related to school culture and classroom management. T8 reflected her worry, *"I am incredibly worried about whether the students can adapt to the school culture after the pandemic. What will we do when we start school? I wonder if their aging will give them maturity and make it easier. Will we have to start from the beginning and do the same things again?"*

Discussion

DE as a Crisis

The results of the current research clearly highlighted that first-grade primary school teachers were tired mentally due to the problems caused by DE as well as feeling lonely. They perceived DE as a crisis and tried to overcome it with the support of their colleagues. The effects of the VUCA world, "uncertainty effects about the pandemic," "sudden change of the school and home routines," "parents' financial and economic ambiguity," "students' digital divide," "health concerns," "quality of home literacy environments," "learning and homework gap," and "DE implementation challenges" are stated as the major challenges during pandemic (An et al., 2021; Dotan et al., 2021; Hartshorne et al., 2020; Timmons et al., 2021). In addition, lack of face-to-face relationships and a sense of community and a lack of teacher preparation and training (An et al., 2021), deficiency of technological knowledge and pedagogical skills of teachers in early literacy instruction during DE (Dotan et al., 2021) affected negatively both students' and teachers' mental wellness.

All teachers expressed that they felt the absence of a teachers' room deeply because it was a place for getting professional support and meeting social and emotional needs. They missed the school and classroom environment and looked forward to being together physically. Some challenges were inherent to the classroom atmosphere, accessibility to online learning, and RLI in general. Moreover, the most important issue about classroom management during DE was the inability to form an adequate classroom atmosphere. The teachers also emphasized that the inability to observe students while they were sitting, grasping a pencil, and writing was stressful. They could not provide student communication and interaction well although they tried to achieve it. Likewise, engagement (An et al., 2021), and the quality of the home environment were other challenges for teachers because not all students had adequate parental support and technological devices (Dotan et al., 2021; Sonnenschein et al., 2021). European Eurostat data (2019) have demonstrated deep differences between low- and high-income parents regarding Internet access. Similarly, the teachers had worries about equity considerations, inequitable access to technology, connection and sound problems, and missing essential resources (Timmons et al., 2021). All these parameters have widened students' learning gaps.

While delivering RLI, the parents informally intervened in the courses, disturbed the teachers, competed with each other, and led students to compete with each other. The parents were not good role models for their children. Besides, the teachers mentioned that they could not have classroom privacy, act like a child, establish emotional relationships with children, and feel the excitement in front of the

cameras and parents. Remote literacy instruction, carried out with the help of parents, caused the teachers to maintain monotonous and boring lessons. The teachers were away from the childlike and fun nature of the traditional classroom environment. Similarly, the loss of social and affective interaction with the students and ignoring feelings and values during DE may easily turn into other behavioral problems (Mankki, 2022; Uysal, 2021).

The teachers agreed that they could not help students acquire values in DE. The emphasized values were respect, listening to others, reading habits, enjoying reading, self-determination, honesty, patience, perseverance, hard work, organization, and cleanliness. The findings echo the literature. Teachers agreed that students have serious problems in acquiring basic values and socializing (Zhao, 2022). The reason may result from the fact that during RLI, teachers focused primarily on cognitive goals and did not prioritize affective areas, social relationships, jokes, play, and games as routines of daily school life (Gultom et al., 2022; Uysal, 2021). These findings reflected that more effort, encouragement, and support to informal, non-content related teacher-student and student-student interaction should be valued rather than producing conservative and mechanical images (Mankki, 2022).

DE as an Opportunity

Although some teachers thought DE harmed their professional identity (Kim & Asbury, 2020), some teachers, as in this study, regarded DE as an opportunity for professional development and to manage their situation coping with the unexpected VUCA world and pressures on their professionalism (Mankki, 2022). The teachers recognized the deficiencies of the curriculum and took responsibility for concentrating on the clarity of instructions to adapt to more detailed planning. They recognized EIN better and started to teach synchronically and asynchronically on EIN. DE process, as a first and emergent application, encouraged the teachers to research and attend in-service trainings voluntarily, and it increased their creativity and colleague support (An et al., 2021). They recognized the importance of exposure to technology use in literacy teaching (Dotan et al., 2021).

In face-to-face lessons during the first month of the adaptation process, both students and parents got familiar with and accustomed to the teacher, and the students adapted to school life. Students learned how to hold pencils, use books and notebooks as well as the differences between letters and sounds, and syllables and words. During this period, teachers prepared their students for online education by making online lessons every day after school, and it increased the literacy rate of children similar to Ferah Özcan and Saydam's (2021) study. However, in another study, students in Türkiye were found to learn literacy considerably later compared to face-to-face education (Mercan Uzun et al., 2021).

Organization for Economic Co-operation and Development (OECD) (2020) report showed that students survived in DE by maintaining close relationships with teachers and communication with the parents. Similarly, in this study, it was regarded as an opportunity by the teachers. The parents collaborated with teachers and guided their children well. The competition between parents sometimes helped the teachers and reduced their burdens. In the same vein, academically and economically competent parents' children demonstrated better learning achievement, self-regulation skills, academic achievement, and academic self-confidence with the help of more interactive resources (Demir & Yıldızlı, 2022).

Teaching in DE

Some studies have found that teachers have tendencies to replicate their classroom routines as accurately as possible instead of employing new and authentic strategies (Mankki, 2022). However, in this study, teachers used different activities such as fine motor skills activities,

counting in groups, demonstration, air-writing, finding and fetching objects, role-play, and educational games. The teachers' online lectures varied from teacher-centered to learner-centered approaches and a mix of both. Video lectures, reading materials, learning by making, offline assignments, printable activities, family activities, hands-on activities, game-based learning, inquiry-based learning, and simulations (An et al., 2021) and using the tools in their home environments, playing with these tools for reading and writing activities (Ferah Özcan & Saydam, 2021) were recommended to be used to deliver RLI. Likewise, the teachers in this study diversified their materials. They used the textbooks of MoNE, EIN online contents, Internet sources, attention and memory booster kits/cards, supplementary/reference books, authentic materials, and popular science magazines. In addition, the teachers sometimes developed their own materials and worksheets for independent reading assignments to teach reading comprehension (Dotan et al., 2021). While delivering the materials developed by the teachers to the students, the teachers usually copied and left them at school or sent them on WhatsApp. The teachers thought that students lacked interaction in online courses, so they designed the last course for students to chat every day.

Assessment in DE

In this study, the teachers were not sure about assessment although they assessed reading/reading comprehension and writing/spelling both during and after the course. They emphasized that they had the biggest difficulty in assessment as Dotan et al. (2021) mentioned. In terms of reading/reading comprehension, the teachers asked the students to read individually, they asked Wh- questions, and they wanted the students to role-play the texts. They also used educational games such as sharing a sentence on the screen and asking the students to do the actions. As feedback is essential for the effectiveness of DE to meet the individual learning needs of students, in other studies, it was found that teachers used differentiated instruction (Dotan et al., 2021), formal and informal assessment strategies, and modified supports (Campbell et al., 2020; Timmons et al., 2021).

For the writing/spelling assessment, the teachers used a range of strategies including peer assessment. Although online quizzes, exams, projects, discussions, presentations can be used, in parallel with the findings of this study, the teachers refrained from assessments in DE (An et al., 2021; Dotan et al., 2021) because more than one task, such as following reading and writing instructions and applying the technological commands on the screen can increase the load on children's memory when given at the same time (Ferah Özcan & Saydam, 2021). In addition, they frequently used WhatsApp for assessment after courses. Likewise, e-mails, personal forums, phone calls, and WhatsApp messages are considered better options in assessment for supporting first-grade students and parents in DE (Uysal, 2021).

School Life after DE

The teachers had some expectations and plans when they started school physically. On the other hand, they thought that school life after DE would bring about some problems. They wanted to go back to school and be in the classroom with happy children. As well as the affective dimension of education, the teachers listed some academic learning outcomes. Learning loss in reading and writing were among their worries. Similarly, it was predicted that the COVID-19 pandemic and emergency remote instruction would affect first-grade students' writing negatively (Skar et al., 2022). Overcoming literacy issues such as losses in writing quality and handwriting fluency in the following years are particularly troublesome. The teachers should consider how they can mitigate writing losses. The teachers also wanted to use online education together with face-to face education. Finally, the teachers were worried about problems related to school culture and classroom management. Further studies about school life after the pandemic may be conducted to find out what actually happened.

Conclusion and Recommendations

The present study examined first-grade teachers' experiences and opinions on RLI in DE during COVID-19 pandemic. Qualitative research paradigm and case study design were used to gather the data. Focus group interviews with a semi-structured interview form were held as a data collection method. 15 first-grade teachers working in public primary schools in Istanbul participated in the study. Data were collected online and analyzed using content analysis. By exploring the experiences and insights of teachers, the study helped to understand the complexities and dynamics of RLI during the pandemic in Türkiye. Although the reflection of VUCA world caused by the pandemic in education was left behind, DE has become a part of education including pre-schools and primary schools. The challenging pandemic months made teachers and children psychologically and socially tired. The study highlighted the importance of professional development and the need for adaptation to new educational technologies and methods. Problems faced in planning, designing, managing, and evaluating RLI may have resulted from uncertainty in the VUCA world. Policymakers can explore the potential of combining online and face-to-face education to create a flexible and inclusive learning environment that benefits from both approaches. Policymakers should invest more in in-service training programs and resources to enhance teachers' digital literacy skills and pedagogical approaches for remote teaching.

In this study, the teachers agree that students have serious problems in acquiring basic values and socializing. Addressing the affective needs of students in addition to academic goals, teachers can give importance to values education and socialization in DE with more parental involvement. It should be emphasized that this process is valuable because the teachers have had experiences in RLI and explored different methods and techniques to be used in DE. The teachers consider themselves inadequate in assessment, so further studies may investigate assessment and evaluation methods used in RLI during the COVID-19 pandemic to determine better ways for assessment.

The study revealed the significance of parental involvement, social interaction, and emotional support in remote learning environments. Remote literacy instruction programs with more parental involvement and with prioritization of people, technology, and communication may increase the quality of future RLI designs. Virtual school communities may be established to foster a sense of belonging, collaboration, and positive relationships among teachers, students, and parents in a similar situation like the COVID-19 pandemic.

This study has some limitations. First, there are generalization limitations due to the nature of qualitative research. The study was conducted with a limited number of teachers, so it is recommended to reveal the prevalence level of the findings through quantitative research. Next, the study group consisted of teachers who were working in state primary schools in MoNE in İstanbul and who were teaching students with low and medium income. New studies may be held with first-grade teachers working in private primary schools or different cities. Another limitation is that the participants of this study were primary school teachers who were teaching first-grade students. Further research may recruit parents of first-grade students as their sample. The results of future studies with parents and the results of this study or similar studies with teachers may be compared taking different opinions and experiences together. In this way, the perceptions of stakeholders may be assessed holistically about applications used in RLI and DE during the pandemic.

References

Alsubaie, M. A. (2022). Distance education and the social literacy of elementary school students during the COVID-19 pandemic. *Heliyon*, *8*(7), e09811. [CrossRef]

An, Y., Kaplan-Rakowski, R., Yang, J., Conan, J., Kinard, W., & Daughrity, L. (2021). Examining K-12 teachers' feelings, experiences, and perspectives regarding online teaching during the early stage of the COVID-19 pandemic. *Educational Technology Research and Development*, *69*(5), 2589–2613. [CrossRef]

Ardington, C., Wills, G., & Kotze, J. (2021). COVID-19 learning losses: Early grade reading in South Africa. *International Journal of Educational Development*, *86*, 102480. [CrossRef]

Ata, R., Yıldırım, K., İpek, P., & Ataş, U. C. (2021). Technology integration of Turkish elementary school: Teaching literacy skills in the post-COVID-19 era. *European Educational Researcher*, *4*(2), 193–207. Retrieved from https://eric.ed.gov/?id=EJ1303191. [CrossRef]

Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., & Geven, K. (2020). Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates. The World Bank. http://documents1.worldbank.org/curated/en/8856015924846832223/pdf/Simulating-the-Potential-Impacts-of-COVID-19-School-Closures-on-Schooling-and-Learning-Outcomes-A-Set-of-Global-Estimates.pdf

Backes, S., Baumann, I., Harion, D., Sattler, S., & Lenz, T. (2021). Why flipping the classroom is not enough: Digital curriculum making after the pandemic. *Prospects*, *51*(1–3), 347–361. [CrossRef]

Bao, X., Qu, H., Zhang, R., & Hogan, T. P. (2020). Modeling reading ability gain in kindergarten children during COVID-19 school closures. *International Journal of Environmental Research and Public Health*, *17*(17), 6371. [CrossRef]

Barnett, W. S., Grafwallner, R., & Weisenfeld, G. G. (2021). Corona pandemic in the United States shapes new normal for young children and their families. *European Early Childhood Education Research Journal*, *29*(1), 109–124. [CrossRef]

Bogdan, R. C., & Biklen, S. K. (2006). *Qualitative research for education*. London: Pearson.

Bozgun, K., Özaskin-Arslan, A. G., & Ulucinar-Sağir, S. (2022). COVID-19 and distance education: Evaluation in the context of twenty-first century skills. *Asia-Pacific Education Researcher*, 1–12. [CrossRef]

Campbell, C., Baumann, R., Kidder, A., & Daniel, B. J. (2020). A gentle return to school: Go slow to go fast. https://www.oise.utoronto.ca/lhae/UserFiles/File/Gentle_Reopening_of_Ontario_Schools-2020.pdf

Carpenter, D., & Dunn, J. (2020). We're all teachers now: Remote learning during COVID-19. *Journal of School Choice*, *14*(4), 567–594. [CrossRef]

Chamberlain, L., Lacina, J., Bintz, W. P., Jimerson, J. B., Payne, K., & Zingale, R. (2020). Literacy in lockdown: Learning and teaching during COVID-19 school closures. *Reading Teacher*, *74*(3), 243–253. [CrossRef]

Ciampa, K., & Jagielo-Manion, R. (2021). Teaching and assessing early literacy during COVID-19 and beyond. *Journal of Language and Literacy Education*, *17*(2), n2.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed). Routledge.

Coşkun, K., & Kara, C. (2022). The impact of the COVID-19 pandemic on primary school students' mathematical reasoning skills: A mediation analysis'. *London Review of Education*, 20(1), 19. [CrossRef]

Demir, M. R., & Yıldızlı, H. (2022). Educational processes and learning at home during COVID-19: Parents' experiences with distance education. *International Review of Research in Open and Distributed Learning*, 23(3), 1–20. [CrossRef]

Dotan, S., Katzir, T., Lipka, O., & Shaul, S. (2021). Elementary school literacy teachers' perceptions and challenges during COVID-19. *Academia Letters*, Article 898. [CrossRef]

European Eurostat data (2019). *Early Leavers from Education and Training*. https://ec.europa.eu/eurostat/statisticsexplained/index.php/Early_leavers_from_education_and_training

Ferah Özcan, A., & Saydam, E. N. (2021). İlkokul birinci sınıf öğretmenlerinin Covid 19 salgın sürecinde ilk okuma yazma öğretimine yönelik algıları. *Journal of Interdisciplinary Education*, 3(2), 62–86. [CrossRef]

Foster, M., Mantas, J., & Korsten, P. (2021). IBM 2021 CEO Study: Find your essential, how to thrive in a post-pandemic reality. https://www.ibm.com/thought-leadership/institute-business-value/report/ceo

Greenhow, C., Lewin, C., & Staudt Willet, K. B. (2021). The educational response to COVID-19 across two countries: A critical examination of initial digital pedagogy adoption. *Technology, Pedagogy and Education*, 30(1), 7–25. [CrossRef]

Gultom, S., Ampera, D., Ampera, D., Endriani, D., Jahidin, I., & Tanjung, S. (2022). Traditional games in cultural literacy to build the character of elementary school students during the COVID-19 pandemic. *NeuroQuantology*, 20(5), 704–712. [CrossRef]

Guo, Y., Puranik, C., Kelcey, B., Sun, J., Dinnesen, M. S., & Breit-Smith, A. (2021). The role of home literacy practices in kindergarten children's early writing development: A one-year longitudinal study. *Early Education and Development*, 32(2), 209–227. [CrossRef]

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. [CrossRef]

Haeck, C., & Lefebvre, P. (2020). Pandemic school closures may increase inequality in test scores. *Canadian Public Policy*, 46(Suppl. 1), S82–S87. [CrossRef]

Harris, J. T., & Santilli, N. R. (2021). Higher education should embrace this liminal moment because there will be no "new normal". In S. Bergan, T. Gallagher, I. Harkavy, R. Munck & H.van't Land (Eds.). *Higher education's response to the Covid-19 pandemic: Building a more sustainable and democratic future* (pp. 129–136). Council of Europe Higher Education Series No 25.

Hartshorne, R., Baumgartner, E., Kaplan-Rakowski, R., Mouza, C., & Ferdig, R. E. (2020). Special issue editorial: Preservice and inservice professional development during the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 137–147. https://www.learntechlib.org/primary/p/216910/

Jandrić, P., & McLaren, P. (2021). From learning loss to learning opportunity. *Educational Philosophy and Theory*, 1–9. [CrossRef]

Karalar, H., & Sidekli, S. (2021). Examining primary school teachers' attitudes towards distance education in the COVID-19 period. *European Journal of Educational Sciences*, 8(3), 1–12. https://files.eric.ed.gov/fulltext/EJ1318486.pdf. [CrossRef]

Kim, J. (2020). Learning and teaching online during Covid-19: Experiences of student teachers in an early childhood education practicum. *International Journal of Early Childhood*, 52(2), 145–158. [CrossRef]

Kim, L. E., & Asbury, K. (2020). 'Like a rug had been pulled from under you': The impact of COVID-19 on teachers in England during the first six weeks of the UK lockdown. *British Journal of Educational Psychology*, 90(4), 1062–1083. [CrossRef]

Knight, S. L., Nolan, J., Lloyd, G., Arbaugh, F., Edmondson, J., & Whitney, A. (2013). Quality teacher education research: How do we know it when we See It? *Journal of Teacher Education*, 64(2), 114–116. [CrossRef]

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed). Sage Publications.

Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed). Sage Publications.

Kurasaki, K. S. (2000). Intercoder reliability from validating conclusions drawn from open-ended interview data. *Field Methods*, 12(3), 179–194. [CrossRef]

Lepeley, M. T., Beutell, N. J., Abarca, N., & Majluf, N. (Eds.) (2021). Soft skills for human centered management and global sustainability. Routledge. https://www.routledge.com/Soft-Skills-for-Human-Centered-Management-and-Global-Sustainability/Lepeley-Beutell-Abarca-Majluf/p/book/9780367556402

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

Lucas, J. W. (2003). Theory-testing, generalization, and the problem of external validity. *Sociological Theory*, 21(3), 236–253. [CrossRef]

Mankki, V. (2022). Primary teachers' principles for high-quality distance teaching during COVID-19. *Scandinavian Journal of Educational Research*, 66(5), 852–864. [CrossRef]

McMillan, J. H. (2000). *Educational research: Fundamentals for the consumer*. Longman.

Mercan Uzun, E., Butun Kar, E., & Özdemir, Y. (2021). Examining first-grade teachers' experiences and approaches regarding the impact of the COVID-19 pandemic on teaching and learning. *Educational Process: International Journal*, 10(3), 13–38.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Sage Publications.

Neuman, M. J., & Powers, S. (2022). Political prioritization of early childhood education during the COVID-19 pandemic: A comparative policy analysis of low-and middle-income countries. *Early Childhood Research Quarterly*, 60, 287–297. [CrossRef]

Nugroho, D., Jeon, Y., Kamei, A., & Lopez Boo, F. (2021). It's not too late to act on early learning: Understanding and recovering from the ımpact of pre-primary education closures during COVID-19. *Innocenti research brief 2021–03, UNICEF COVID-19 & children*. https://files.eric.ed.gov/fulltext/ED615561.pdf

Organization for Economic Co-operation and Development. (2020). The impact of COVID-19 on education. https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed). Sage Publications.

Sánchez Amate, J. J., Luque de la Rosa, A., Gutiérrez Cáceres, R., & Vargas Serrano, A. (2021). The effects of COVID-19 in the learning process of primary school students: A systematic review. *Education Sciences*, 11(10), 654. [CrossRef]

Sayko, S. (2020). Evidence-based literacy instruction within remote learning environments. *Comprehensive center network*. Retrieved from https://files.eric.ed.gov/fulltext/ED608810.pdf

Skar, G. B. U., Graham, S., & Huebner, A. (2022). Learning loss during the COVID-19 pandemic and the impact of emergency remote instruction on first grade students' writing: A natural experiment. *Journal of Educational Psychology*, 114(7), 1553–1566. [CrossRef]

Sonnenschein, S., Stites, M., & Ross, A. (2021). Home learning environments for young children in the US during COVID-19. *Early Education and Development*, 32(6), 794–811. [CrossRef]

Timmons, K., Cooper, A., Bozek, E., & Braund, H. (2021). The impacts of COVID-19 on early childhood education: Capturing the unique challenges associated with remote teaching and learning in K-2. *Early Childhood Education Journal*, 49(5), 887–901. [CrossRef]

United Nations Children's Fund (2022). From learning recovery to education transformation: Insights and reflections from the fourth survey on national education responses to Covıd-19 school closures. http://hdl.handle.net/10986/38112

United Nations Educational, Scientific and Cultural Organization (2021). Recovering lost learning: What can be done quickly and at scale? *UNESCO COVID-19 education response issue Note no 7.4*. https://unesdoc.unesco.org/ark:/48223/pf0000377841

Uysal, D. (2021). Emergency distance education experience of primary school teachers teaching first-grade students. *International Journal of Progressive Education*, 17(3), 229–249. [CrossRef]

Yıldırım, A., & Şimşek, H. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. Seçkin Yayıncılık.

Yin, R. K. (2002). *Case study research: Design and methods*. Sage Publications.

Zhao, Y. (2022). Build back better: Avoid the learning loss trap. *Prospects*, 51(4), 557–561. [CrossRef]

Appendix 1

Semi-Structured Interview Form

Interview Questions

1. How did you reflect when you first thought that you would teach literacy online? Why?
2. What are the factors that support and hinder literacy education in this process?
3. Are you satisfied with your literacy instruction in DE? Why?
4. What resources have you used during DE, especially in teaching literacy? Why did you choose these resources?
5. What have you done or what kind of activities have you used to motivate first-grade students during DE?
6. What instructional methods and techniques have you used in teaching literacy in DE? Can you compare them with what you used to use in face-to-face education?
7. Have you used any different or special instructional methods or techniques in teaching literacy online?
8. To what extent did parents support their children in literacy instruction? Are you satisfied with their support?
9. What are the effects of parents attending classes with students in DE?
10. Do you think you have used technology effectively in teaching literacy during DE? What kind of technologies/applications have you used and to what extent?
11. Do you think that teachers have used technology effectively in teaching literacy? Do you think you have received support from your colleagues in this respect?
12. Have you given homework? What and how?
13. How have you evaluated students in teaching literacy? Do you think the evaluation process you have implemented is sufficient?
14. What do you think might happen when face-to-face education starts after the pandemic in terms of school life?
15. When face-to-face education starts, which opportunities of DE would you like to use? Why?