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Original Article

A phenomenological study of virtual education challenges and evaluation in primary schools from the teachers and parents' perspective

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Abstract

With the corona epidemic, virtual education has received more attention from the educational system. Taking advantage of virtual education regardless of its basic principles and possible challenges will cause obstacles and problems in the implementation, effectiveness, and practical use of its capacities. The current research aimed to study the phenomenological challenges of virtual education and evaluation in primary schools from the perspective of teachers and parents. The research method was qualitative and phenomenological. The participants were 34 teachers and parents of elementary school students of Gonabad city (17 persons in each group), who were selected using the snowball sampling method. To collect the data, a semi-structured interview was used. Based on theoretical saturation, 34 interviews were conducted. To analyze the data, the seven-step Claysey method was used. After removing similar items and formulating concepts, the data analysis process led to the extraction of 48 sub-concepts. Sub-concepts were categorized under 4 main categories: 1) cultural and social challenges, 2) technical and infrastructure challenges, 3) educational challenges, and 4) ethical challenges. The results of the present study can be used to solve possible challenges and increase its effectiveness while using the capabilities of virtual education.

Keywords

virtual education and evaluation, qualitative research, phenomenological study, Claizi method, elementary schools.

Introduction

Fraud The emergence of the Internet and information and communication technology (ICT) has affected all aspects of human life(Kauffman, 2015). Education is not exempt from this change and transformation. It is influenced by educational technologies and their positive and negative effects, which have led to the formation of new approaches in the field of education (Rostaminezad, Ajam and Zabet, 2019). Virtual education received more attention than before with the spread of covid-19 and due to the implementation of quarantine to reduce the rate of infection and death. Also, the closure of all educational centres(Petrie, Aladin and Al, 2020) and all these factors led to a widespread transition from face-to-face learning to virtual education(Mahyoob, 2020). For the first time, all over the world, all teachers and students were teaching and learning virtually(Misirli and Ergulec, 2021). Therefore, virtual education was a response to the injuries caused by this epidemic, which was pursued to avoid academic interruption and led to the continuation of the education process about the world (Viner et al., 2020).

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On the other hand, in education, the ever-increasing advances in information and communication technology have made it possible to learn at any time and place according to the learner's needs(Mahyoob, 2020). Also, with the immense increase in population, society cannot respond to the needs of all people for education; As a result, countries seek to find a strategy to make education available to everyone at a lower cost. Therefore, virtual education is one educational approach to meet learners' educational needs by relying on modern educational technologies (Garrison, 2011). Of the Covid pandemic and the closure of traditional education, and the widespread shift to virtual education, it is necessary to pay more attention to it than in the past and improve its effectiveness and solve its challenges(Smalley, 2020). Virtual education is a system in which students attend and learn in their classrooms through technologies such as the Internet, or web-based methods, under the supervision of a teacher located at a distance from them(Charania, 2010). This strategy plays a significant role in the formation of justice for the distribution of education in society. On the other hand, numerous people can use virtual content at any time. The definition of e-learning is a learning method through studying at home using a computer and participating in training courses provided on the Internet. The turning point of this definition is its emphasis on the use of educational technologies and the lack of time and place limitations in virtual education(Simamora, 2020). Virtual education is a dynamic, valuable and novel way of creating educational opportunities to convey the most up-to-date educational materials to people in a cost- and time-saving manner, regardless of location and time. Also, it is an educational system in which, despite the physical distance, the learner and the teacher communicate with others through the technological tools and equipment made available to them and the educational content provided through electronic services(Rezaei, 2020). Virtual education is a new way to provide an educational environment with modern technologies that are well-designed, interactive and learner-oriented. It is a free academic environment for all learners at any place and time using various resources and features of digital technology. It provides a flexible and public learning environment besides other forms(Allameh et al., 2012). In a comprehensive definition, according to the existing items, we can say that virtual education includes any education that takes place regardless of the time and setting to transfer knowledge, establish interaction and facilitate learning with the guidance of the teacher and the computer or a combination of both. It emphasizes education, technology and access(Esmailnia, Kohestani and Maghool, 2019).

Virtual education has five main elements, which are: the influence of an educational organization, the separation of the learner and the teacher, the use of technical media to establish communication between the teacher and the learner to deliver educational content, creating the connection and the possibility of achieving social and educational goals(Choi, Kim and Kim, 2007). With emphasizing the responsibility of the learners in the learning process, virtual education facilitates the individual training program and allows the learner to set the speed of his progress. This educational method provides many sources of information to the learner and emphasizes active learning. It also provides opportunities for interaction between teachers and learners and allows teachers to participate in new information and materials(Naderi Far et al., 2016).

According to research and studies, virtual education has advantages; Access to online education at the global level, saving time and avoiding wasting it, and saving educational costs are among the gifts of online learning(Mahyoob, 2020). Also, easy access users to education and educational content, up-to-dateness of educational content, faster and more intensive acquisition of a specific skill or subject, easier retention and maintenance of educational content, access to a learning environment free from any cultural and social bias, facilitating Other advantages of this type of education are matters related to the registration

of learners, the progress and control of learners' status, the possibility of simulating dangerous experiments, increasing the coverage of course learners, using computer facilities and educational software, and providing multimedia content(Naderi Far et al., 2016; Rezaei, 2020).

We cannot ignore the challenges and limitations of virtual education, while it has numerous benefits. The challenges of virtual education are elements and factors that hinder the use and successful implementation of virtual education and the realization of its goals. Identifying these challenges and limitations of virtual education and overcoming them will reduce the inadequacy and inability of the education system to achieve the goals of virtual education and its successful implementation. On the other hand, the contrast between virtual and traditional pedagogy has led to a change in educational outcomes for learners(Allan et al., 2013). With the transition to a new educational environment, learners need special social care to improve their concentration and motivation for online learning. The current culture of pedagogy cannot easily find its place without the presence of a teacher; Therefore, the new education and teaching environment bring limitations and challenges(Mahyoob, 2020). Challenges related to students' academic affairs, so the challenges of writing, reading, and speech-related issues for some subjects, especially in elementary schools, are the fundamental challenges, especially for the early years of education. If the educational system and parents do not cooperate, the individual and society will suffer. The lack of safe and quality connections in the country, the numerous network problems in some regions, and the absence of digital devices with an optimal quality cause occasionally pupils not to be present during training and evaluation. Sometimes, they are present in the virtual classes and unable to send information because their communication and connection are not secure or favourable(Charania, 2010; Mahyoob, 2020; Rajab, Gazal and Alkattan, 2020; Sahoo, 2020; Misirli and Ergulec, 2021). Lack of two-way interactions between learners (group communication) and between learners and professors, lack of face-to-face communication, addiction and strong dependence on new technologies, digital distraction(Rostaminejad et al., 2022), drowning in messengers And social networks are other harmful effects of virtual education(Cheong, Shuter and Suwinyattichaiporn, 2016; Zhang, 2021).

The high rate of attrition in virtual training compared to face-to-face training(Tirrell and Quick, 2012), the inability of teachers to use non-verbal cues and, as a result, the incapacity to perceive the extent of students' understanding of the material presented by the teacher(Kauffman, 2015), the difference in students' perception of face-to-face lessons compared to virtual courses, the presence of negative perceptions - especially, incorrect ones that can lead to unwanted outcomes such as; Reducing students' motivation and its sustainability, having negative feelings in learners such as despair and hopelessness(Berenson, Boyles and Weaver, 2008), especially when the curriculum and educational content is poorly designed, and students lack the necessary skills for virtual education. The lack of suitability of virtual education for all students due to their different learning styles is one of the other challenges we encounter in this type of instruction and evaluation. Identifying the efficient characteristics of students in their success or failure in virtual education is necessary(Kauffman, 2015). In addition, the items like having technological literacy for teachers and learners and their parents, the need for infrastructure and equipment necessary for virtual education, the difficulty of measuring the level of attention of learners(Chin, 2021), the time-consuming nature of content production, the low speed of the Internet and the technical problems of the systems, Internet maintenance and charging costs, lack of support for conducting online classes and exams in Persian (Rezaei, 2020), absence of proper efficiency for teaching practical and laboratory courses, lack of access to education and communication for people in deprived areas and so on(Taneja,

Fiore and Fischer, 2015). These are some of the issues that should be taken into account when planning for effective virtual education for achieving appropriate educational outcomes.

Currently, the challenges of achieving virtual education have decreased compared to the past due to the excellent experience of professors and learners of awareness and working with educational technologies such as web-based, computer, and mobile education(Pellegrini, Uskov and Casalino, 2020). As Prensky(2001) points out, today's learners are entirely different from their predecessors because they are technology-native learners. Their interaction with the virtual and digital world is more. This interaction enables them to be active recipients of e-learning(Sahoo, 2020). In the research conducted by Rajab, Gazal and Alkattan (2020), Communication, assessment, online learning experience, technology devices, time management, anxiety and stress of corona disease were virtual learning challenges. In a meta-analysis study, Yildiz, Cengel and Alkan (2020) examined the process of educational technologies from the years 2015 to 2020. The results showed that using new educational technologies concerning teaching and learning was appropriate and effective. In a study conducted in Pennsylvania regarding the virtual education learners' characteristics, academic, social, and educational support and characteristics of learners have been mentioned. The results of this research showed that the role of teachers in virtual learning was very predominant. Also, this study proved that parental involvement has improved students' academic achievement levels (Wolfinger, 2016). In another investigation, the challenges of virtual education were; 1) teachers who struggle with the lack of educational and support resources in virtual education, 2) lonely and anxious learners who are unable to concentrate and are worried about the unnatural closing of the school year. 3) parents who are not sufficiently prepared for virtual education and are trying to establish a balance between work and educating their children at home, and 4) maintaining a positive relationship between students, teachers and parents and encouraging collaborative learning and socialization in a form Online, which itself is a challenging topic(Petrie, Aladin and Al, 2020).

Perhaps the role of information technology and the Covid-19 pandemic in accelerating the effectiveness of virtual education now and in the future can be considered a panacea in times of crisis and problems. But until the limitations and challenges of virtual education are well discovered and planned to solve them, it will bring obstacles and problems in the correct implementation and benefit of its capacities. Also, the education system and learners will face many problems in achieving their goals. Therefore, paying attention to the category of challenges of using virtual training can be considered the beginning of a movement in paying more fundamental and close attention to the specific requirements of virtual training for their successful implementation; Therefore, the aim of the current research is to study the phenomenological challenges of virtual education and evaluation in primary schools from the perspective of teachers and parents of students.

Research Methodology

The current study is qualitative and phenomenological. Qualitative research is a systematic inquiry process for information about an uncertain human and social situation(BazarganHarandi, 2014). Phenomenology is also a research method that the researcher identifies the grounds of human experiences about a phenomenon as described by the participants. In this method, the scholar wants to examine the group of people's perspectives and understanding of the studied concept. People and their experiences in life have different meanings from the studied phenomenon(Pourshafi, 2016). Therefore, this method can provide detailed information about human interactions and the lived experiences of teachers and parents of students from the challenges of virtual education and

evaluation and can be used to discover the perceived meaning and challenges of these experiences.

The statistical population of the research included all teachers and parents of primary schools in Gonabad city. In this study, the sampling method was snowball sampling. It refers to a technique in which the people in the inquiry introduce the others people. At the same time as the sample was completed, sufficient information was also collected. This process continued until theoretical saturation was reached(Corbin and Strauss, 2014). In this study, a semi-structured interview was used to collect data. This process continued until theoretical saturation was reached. The interviews lasted approximately 45 minutes. At the beginning of the interview process, the interviewer explained the study, its nature and purpose and then asked the main research questions. To investigate the phenomenon in more detail, asking side questions or bidding for more explanations was put on the agenda by the researcher.

Also, before starting the interview process, its protocol was composed. With prior notice to the interviewees, the interviews were conducted and reviewed. Per participant was interviewed separately. In addition, all participants were assured of voluntary participation and the confidentiality of their information. And with permission from each of them, all conversations were recorded, sorted and then analyzed. In cases where the participant had difficulty describing his experience, the interview must have had a more specialized course, or the interviewee needed indirect help to mention his experience, the researcher asked follow-up questions for clarification. As long as the participant fully described their experience and no further clarification was necessary, the interview ended and the data was collected. Ultimately, theoretical saturation was reached after performing 34 interviews (17 interviews with each group of teachers and parents). Then, the researcher used the Claizi method to analyze the data.

In the first stage, the audio file of the interviews was written word by word and then converted to text and studied to achieve a general insight. In the second step, meaningful, related, main and new facts were underlined, and influential sentences were extracted by writing the participant number. The third step was the formulation of statements, which tried to elicit meaningful sentences and phrases by preserving the main parts of the interviewee's thinking. According to the fourth stage of Claizi, the collected concepts were carefully studied and then categorized based on conceptual similarity. As a result, subject categories formed from collected notions. Then, the researcher reported a comprehensive description of the studied phenomenon. The main structure is adapted for narration in the sixth step. In the seventh stage, which was the validation of the findings, to pass the interference of pre-suppositions and judgment, the researcher shared the data with the research team (supervisors and advisors). It led to the confirmation, adjustment or rejection of the specified relationship that the researcher had identified with the meaning units.

In the end, the participants validated the results of the study. Usually, to estimate the logical and valid explanations of the studied phenomenon, various methods are used to collect, evaluate and judge the data, and illustrate the findings. In the present study, the researcher employed a triangulation strategy. So that different samples of both groups of teachers and parents of both sexes, with different ages and educational backgrounds, were interviewed in formal and informal settings. To maintain the overall coherence of the present study, issues such as the coherence between the goal, the research question and the results obtained were carefully considered and continuously followed up by the researcher.

Research Findings

First, to analyze the data using the Clazi method, the recorded conversations were converted to written texts. Then all the notes were reviewed again. At this step, we tried to get a

general view of the collected information by repeatedly passing the data. In the next step, the main phrases related to the topic were identified using sentence by sentence strategy. The result was the identification of 88 primary concepts. Then, by combining similar items and removing duplicate ones, 48 significations were formulated. In the next step, the current extracted phrases were divided into four main categories so that the extracted notions with a similar subject were placed in one category (Figure 1).

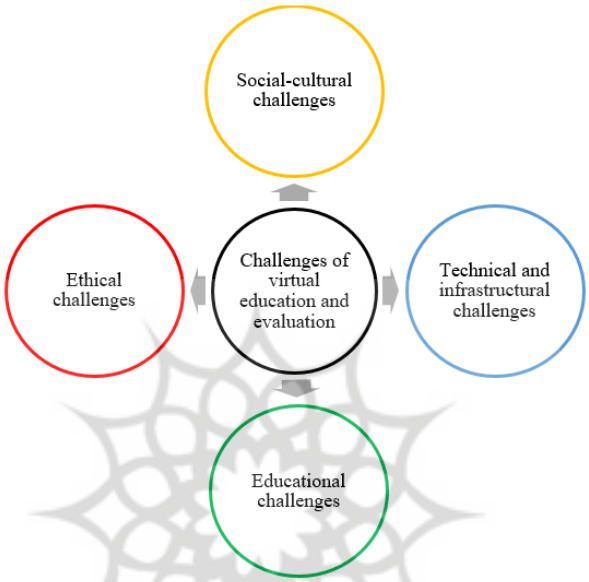

Figure 1. Challenges of virtual education and assessment from the perspective of teachers and parents

In the following, each of these categories is explained in detail.

Social-cultural challenges

These challenges are related to social and cultural dimensions of society, such as customs, beliefs, cognitions, art and habits of society in connection with virtual education(Naderi Far et al., 2016). Some of the most substantial challenges are mentioned below. Isolation and seclusion, negative attitude towards virtual education, excessive fatigue of students and their aggression, limited access of girls to mobile phones, addiction to cellphones and immersion in the Internet and social networks, cultural fault, crowding home during virtual instruction and evaluations, dropping out of school, etc. are among the challenges that stay under this category.

Participant NO.13 from the teachers says:

ŏMost of the time, during evaluations and class discussions, I witnessed the noise of other people and family members. sometimes he was so loud that I couldn't understand what the student meant!" For example, once a student sent me the audio file of his Quran lesson, he was so loud that I had to ask him to send it again! Some other students are also in classes, but it is as if they have no activity in my class. They are absent. Unfortunately, when I inform the parents, they confirm and support their child's statements. They don't take serious class discussions, online questions and answers and their exams. My colleagues and I discussed the unfortunate social and cultural consequences of closing schools in numerous

meetings. This distance from the socio-cultural space of schools, curriculum, staff, classmates, competitions and social events causes irreparable damage to the educational system because they stay away from interacting with their classmates. I believe that children become isolated because they are not in school and do not enjoy being together. ”
Participant NO.1 from the group of parents says:
ŏUnfortunately, we don't have the financial ability to buy a private phone for each of our children. Also, due to the high rent of the houses, we cannot mortgage or rent a bigger house, and the children can have their room. They can use a more comfortable environment with less noise to participate in virtual classes and exams. And as a result, they can focus more. My elder child is a girl. Unfortunately, my husband's opinion is that girl should not have a personal phone, which prevents her from owning and buying a phone. Therefore, the children have to use my husband's phone, which is not very up-to-date and has problems sending and receiving content sent by their teacher. Their teacher is constantly complaining about doing and sending their homework! ”

Technical and infrastructural challenges
These are challenges related to infrastructure facilities, digital resources, financial resources, and appropriate hardware and equipment required to establish and implement virtual education as optimally as possible(Naderi Far et al., 2016). Some of the subcategories that stay under this category are; Lack of access to high-speed and uninterrupted Internet, deficiency of electronic tools to participate in class and evaluation (phone, tablet, laptop), absence of the technology literacy of users (including teachers, parents, and students). Also, the absence of necessary quality in online classes, the lack of needful bandwidth, the lack of access to digital resources and software required for virtual education, technical and network problems, the debility of virtual learning systems, and the lack of affordability are other subcategories.
Participant NO.10 from the teachers’ group says:
ŏMany times, I have problems with the systems of holding virtual classes, both for students and colleagues. Sometimes I have difficulty receiving and sending messages, or the communication is one-way, or due to low bandwidth, I face slowness and a drop in speed, which prevents the users from connecting to the domain. Although the instructional student network (shad) is for students and teachers and provides some security in virtual learning, due to its weak infrastructure, holding the classes is impossible. Sometimes I have to buy a subscription to the Skyroom and Big Blue platforms, which provoked problems because they do not support the Persian language, so I cannot manage my class. Families are also unwilling to use these interactive platforms because schools cannot afford to pay for these platforms, or the service companies of these platforms do not provide significant support. So occasionally, I have to spend a part of my income to buy educational platforms. On the other hand, I have witnessed that digital devices are not up to date, hampering my students from joining virtual classes on the web. Many parents and colleagues, because they do not have a good level of technological literacy, could not solve the problems of their students. ”

Participant NO.7 from the group of parents says:
ŏWe had the Internet speed drop, pending certain hours. When there was traffic, we had this trouble. The sound and visual communication were interrupted many times. When the teachers called the students, they could not participate actively in the classes. At home, we had stressful situations and constantly argued with our children. Unfortunately, the Internet providers did not provide good support. The support operators related the problems to the infrastructure. Because we did not have high technical literacy, so had to endure these conditions. We knew that this method of teaching and evaluation has adverse effects on the

scientific foundation of children. ”

Educational challenges

These are challenges related to the dimensions of an educational system, such as teaching, content, evaluation and e-learning management, as well as the profiteers of the educational system, especially teachers and learners (Naderi Far et al., 2016). Some of the leading subcategories that stay under the main category are: Lack of online classes, deficiency of communication and two-way interaction between teacher and student, the inefficiency of virtual education for laboratory and practical courses, lack of participation of students in teaching, and students' anxiety about participating in virtual classes and using technology, the long-term closure of schools and the uncertainty of students and their families are some of these. Also, loss of face-to-face communication in educational platforms, missing attention to individual differences and learning styles, not having self-confidence, loss of belief in success, students' lack of effort, difficulty in controlling students, the lack of concentration of students, weakness of creativity due to the lack of vulnerability to accept approval or criticism in front of others are the other subcategories.

Participant NO.3 from the teachers says:

ŏSometimes I, as a teacher, was afraid and anxious about using technology due to the newness and sudden spread of virtual education. On the other hand, I was worried about the weakness of my students in basic subjects such as Persian, mathematics, and science. Sometimes, I had to spend a lot of time and energy designing and producing electronic content, But its effectiveness was not satisfactory. Its reason was the lack of the necessary technological literacy. Periodically when I got tired and bored, I also used the content of other coworkers, which did not have the required quality. Due to the design and content production, my house became tense; Because my child's voice was constantly in my files and content. Occasionally I had to work late on my content which made me very tired. Tomorrow, when I teach, I won't have enough energy to handle the class and check my students' assignments. Unfortunately, some of the children sent several photos from their assignments that did not have the required quality. It was clear quite their phones did not have the necessary qualifications, or they did it out of boredom. During the Covid epidemic, examining such assignments hurt my health and mental vitality. On the other hand, especially at the beginning of working on the educational student network (SHAD), I was not satisfied with my teaching method due to the lack of essential infrastructure and the loss of two-way communication. This issue worried me more. On the other hand, it was impossible to observe the students. There was no required effort among the children. I did not see the spirit of criticism and critical thinking. Some children were not motivated. They are unable to focus on their classes and evaluations. As a teacher, I believe the children were busier with phones, tablets, games and social networks. They formed groups for themselves, and sometimes we saw that they were chatting together in their groups. ”

Participant NO.9 from the group of parents says:

ŏI think the problem for most parents was that their children were not fond of books and studies. They had no competition at all. I worked in a hospital. Sometimes when I checked my son's class, I saw that his teacher put his name on the list of absentees or students who did not have activities or did not submit their assignments. Again, I had to manage his activities despite the high work pressure. Most of the problems originated from the fact that the education and evaluation platforms lacked the necessary communication and interaction between the teacher and the student. Sometimes, the survey link was used for children's attendance, which was not practical, and the teacher couldn't check the student's presence or

absence. I was always worried about my child's basic studies. These platforms did not apply to mathematics, practical and laboratory courses. Sometimes, children could not communicate with their teacher due to crowded classrooms and poor internet connection. ”

Ethical challenges

These challenges refer to the non-observance of ethical principles to respect the rights of other virtual education users (Naderi Far et al., 2016). This category contains other subcategories such as; Lack of safe access of users, protection of their privacy, the dangers of staying in the virtual space for a long time, non-compliance with ethical issues in virtual education such as copyright, illegal and malicious publication of materials, poor education, multiple, unreal and anonymous identities. Also, getting help from other people in the exams, inappropriate participation of parents in training and assessments (acting instead of the student), sharing the answers test in other groups, and abuse of the teachers with the problem-solving trick during the class valuations are other subcategories.

Participant NO.12 from the teachers says:

ŏI want to share my personal experience with the virtual math test I designed for my students. I was a teacher, and I taught sixth-grade mathematics. At the end of the month, I held a test on proportion topics. As usual, I share the link to the exam with my students. I set the start and end times of the exam. After a short time, one of my colleagues sent me a screenshot of the exam questions. Then, another one of my colleagues sent me a short video of my questions, which was distributed in the group by one of their accounts, asking them to answer the questions under the pretext of fixing the problem. The student was able to access the group of teachers and asked the questions one by one of my colleagues and received all the answers with this abuse. It was only an example. Unfortunately, in the exam of other courses, parents acted instead of the students. Sometimes there was no parental supervision during the evaluations, and the students did not take evaluations seriously. My students completely opened the book and received the answers. I do not trust the results of this type of evaluation. I believe the test platforms should have rigid restrictions on access to the Internet and communication with other IPs. This restriction is necessary to provide reliable evaluation results and prevent these abuses by considering appropriate strategies.”

Participant NO.5 from the group of parents says:

My child and his classmates had created other groups on different social networks. They used to share questions during class evaluations and monthly tests. Unfortunately, some parents say the children don't learn the contents, so we have to answer and send the assignments instead of them. Occasionally, when we didn't know a question, we would get help from other teachers. Sometimes the children gathered in a place and answered the questions with each other's help. In my opinion, the lack of a teacher's physical presence led to a decrease in the children's moral role model of the teacher and caused the children to abuse the situation. Of course, we (parents) were guilty. We should have increased the supervision of our children and reinforced our cooperation with teachers.

Conclusion and suggestions

The present study was qualitative research of phenomenological examination of the virtual education and evaluation challenges from the teachers' and parents' perspectives. Semi-structured interviews were used to collect information. Analyzed data by the Claizi method led to the extraction of 88 primary concepts. After formulation, 48 subcategories were identified. Lastly, cultural-social, technical and infrastructural, educational, and ethical challenges were identified as the main categories.

With the spread of the covid-19 epidemic and the holding of all school and university

classrooms in the form of virtual instruction as the only possible educational method, considering the health protection of society and consequently all the people of the world and preventing more infections and the appearance of new strains, Many developed countries quickly switched to virtual education(Sahoo, 2020; Chin, 2021). Although developed countries also had problems in virtual education due to holding a large number of classes, they could adapt to new conditions because they had successful experiences in implementing combined and hybrid learning (Smalley, 2020). This issue brought critical challenges in developing countries.

The virtual classroom requires a virtual education approach. Success in virtual education, like traditional education, depends on the quality of its effectual factors of it. One of the essential factors in virtual education is the quality of infrastructure and technical issues. The best-designed content in the hands of the most skilled teacher will be effectless if the infrastructure issues and the other required equipment aren't or are not up to date and don't have the necessary quality(Simamora, 2020). Studies have shown that when technical and infrastructure issues are not available, or they are not of the necessary quality, it will not be possible to achieve academic goals fully and optimally. It may lead to boredom and distraction for the students and the formation of a negative attitude towards virtual education. These findings are in line with the results of Marks and Thomas (2022). Also, these results are in accord with the findings of Mizerel and Argioles (2021), Sahoo (2020), Rajab et al. (2020), and Charania (2010), which show the quality of the Internet and the technology used by teachers and students have a direct effect on the quality and the richness of learning and the lack of digital distractions of the learners.

For the practical use of virtual training and evaluation, it is necessary to have up-to-date technical equipment and infrastructure, but it seems that it is not enough alone. To use these facilities as efficiently and effectively as possible, the users should also have technological literacy. During the pandemic, the educational environment changed from school to home. Unwillingly, parents got involved in education during this period. So, students and their parents must have technological literacy. The parents' digital competence in virtual education is as essential as face-to-face education for their support and participation in their child's education at home. However, the possession of digital literacy as designers and producers of educational content, on the one hand, and as presenters, content providers and educational facilitators, on the other hand, is of double importance(Simamora, 2020). Teachers should plan on producing pleasant and practical multimedia content in virtual education and have the necessary professional qualifications. If learning styles are paid attention to in the production of electronic content and computer capabilities and content design and production software are used optimally, it will improve the motivation and consideration of the learner and make learning more effective (Rostaminejad, Ajam and Zabet, 2019). And finally, it will lead to the improvement of students' participation and their sense of cooperation in the teaching-learning process. This issue will result in students studying more and prevent them from digital distractions. Taneja, Fiore and Fischer (2015) showed that digital distraction is related to a lack of interest in the course material. The higher the interest and motivation levels of the learner and the more stimulating the educational content are, the less likely the person will be distracted. Otherwise, digital distraction causes their learning will be perfunctory because it divides their attention between several sources. Instead of participating in the teaching-learning process will be immersed in their digital tools and will dedicate most of their attention to social networks and mobile phone applications, which will undoubtedly have unfavourable effects on students' learning. The above findings are following the results of Chen, Nath and Tang (2020), Dontre (2021), Rostaminejad et al.(2022), Zhang(2021) and Cheong, Shuter and Suwinyattichaiporn (2016). On the other hand, one of the main problems in virtual

education is the lack of face-to-face communication between learners and teachers. Unfortunately, the educational student network (SHAD) in its initial version was more like a messenger than a purely educational platform! By improving its capabilities, this platform has not been as effective as expected due to the lack of proper and accurate technical infrastructure concerning solving ethical, sociocultural and instructional challenges. It wasn't according to the principles of educational platforms. In connection with the presence and absence of students and their classroom observation, the possibility of two-way video interactions and communication has fundamental problems. The lack of two-way communication and interactions has led to the abuse of students in virtual education and evaluation, which is in line with the findings of Zhang(2021), Cheong, Shuter and Suwinyattichaiporn, (2016), and Abasi, Hejazi and Hakimzadeh (2020).

Just as teaching and learning shape half of the teaching-learning procedure, evaluation and assessment also includes the other part. Naturally, virtual instruction in the conditions of the covid-19 pandemic requires virtual evaluation to complete the educational process and to measure and evaluate the attainment of educational goals to some extent. In face-to-face education and evaluation, the role of the teacher is significant, decisive and pivotal because he brings other impressible educational factors under his control. In virtual education and evaluation, the impression of parents and families has become more prominent. So, it appears necessary for them to have an optimal level of digital competence in virtual education and evaluation. Their participation in virtual education is as significant and essential as face-to-face one. These results aligned with the results of research by Abasi, Hejazi and Hakimzadeh (2020) and Chin (2021).

Evaluation is a vital element in the teaching-learning process due to its feedback. What is said earlier as ethical challenges are more evident in the evaluation section. Perhaps the biggest concern regarding virtual evaluation is the issue of ethics in evaluation, which sometimes leads to unfair judgments about the level of students' acquisition of competencies. The reason is that in virtual evaluations, as opposed to face-to-face, due to the absence of the possibility of teacher and parents' control of the learner, the probability of unethical behaviour is much higher. Examples of these behaviours in the process of virtual evaluations are; taking help from other people such as friends, and acquaintances during evaluations, sharing answers among students in various ways, membership in teacher groups through accounts with multiple and unknown identities, abusing teachers by asking test questions under the pretext of fixing bugs, using educational materials and resources, and cheating. These findings are in agreement with the results of Mahyoob(2020), Naderi Far et al.(2016), and Wolfinger(2016) regarding the need for social care by changing the approach of education from face-to-face to virtual and the importance of the role of parents in preventing cyberspace harm in evaluation.

To implement the virtual method as effectively as possible, teachers should participate in in-service training to increase their scientific and technological literacy. Training courses should be project-oriented to have sufficient mastery of teachers and improve their professional qualifications. To encourage as many teachers as possible to produce electronic content, educational administrators should hold a content production festival, use the best works of the festival favourably and appropriate their producers in a good way. We can use the selected content by the rules and regulations to insert a characteristic barcode in the textbooks. Also, it will be significant to hold family education courses to improve and solve moral and cultural-social challenges. Also, It is possible to use the ability of the national media to create the necessary culture through animation. Teachers can use hybrid learning to compensate for the challenges of virtual education and use its capabilities optimally. It is also possible to use the technical mastery of knowledge-based companies to design and implement virtual evaluation educational platforms. This research focused on understanding

and discovering the teachers' and parents lived experiences of virtual education and evaluation in elementary schools during the Covid-19 epidemic. To increase the generalizability of the results, researchers should study the lived experiences of students and administrators from virtual education and evaluation. Also, investigating the same subject at the university and high school with practical and laboratory lessons helps to identify the unknown aspects of the matter.

Ethical considerations

In conducting and implementing the current research, the principles of professional ethics related to the study have been observed.

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Conflict of interest

According to the authors' statements, this article has no conflict of interest. It has not been published before in any domestic or foreign publication, and it has been sent to the Iranian journal of distance education only for review and publication.

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