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Original Article

Exploring Elementary School Teachers' Experiences of the Self-Management Experience on Cyberspace: A Phenomenological Study

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ABSTRACT

Background: The spread of coronavirus in Iran, caused virtual education in cyberspace to replace face-to-face education. On the other hand, one of the main tasks of teachers in the process of virtual education is to share management information and self-management. Therefore, the present study aimed to explore the lived experiences of Shiraz (public) elementary school teachers of self-management in cyberspace.

Methods: In this qualitative study, Husserl's phenomenological method was used. Participants in the study were 17 teachers with teaching experience in the central and suburbs of Shiraz. They were selected by purposive sampling and criterion sampling approaches The data was collected by a semi-structured interview. To measure the initial validity of the data, the credibility criteria (the triangulation method was used and tried to collect sufficient data from different resources to create believability) and reliability (this criterion is referred to the stability of results at different times and conditions and is equivalent to reliability in quantitative research) was used. After encoding the data, the thematic analysis method was used to form a network of self-management themes in cyberspace.

Results: Results classified as follows: The organizing themes were: 1) self-management skills related to students' challenges (student participation in e-learning, encourage unmotivated students in cyberspace, etc.) 2) Self-management skills about the challenges of colleagues (formation of virtual groups between colleagues for co-thinking between teachers, content production by consulting colleagues with each other, etc.) 3) Self-management skills about management challenges (online planning to set the timing of online teaching, managing student attendance in the online classroom for students who did not attend online class, etc.) 4) Self-management skills were divided about educational challenges (producing attractive content to prevent students 'cyberspace boredom, online student evaluation, etc.)

Conclusion: An exploratory model was formed in a global theme called teacher self-management in cyberspace.

Keywords: Self-management, Cyberspace challenges, Husserl's phenomenology, Elementary school teachers, Management, Classroom management

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Introduction

Almost all countries of the world are changing their lifestyle, governance, education, etc., especially in the field of education because of the Coronavirus. The main issue of changing these styles is "social distance", which is currently the only way of preventing this epidemic. In addition, education norms have changed due to the social distance standards, and the World Health Organization has suggested to governments close their educational institutions. To solve this problem, they suggested virtual learning programs and the use of different educational programs and places. Hence, teachers can present their words and teachings to their students from a long distance (1, 2). This led teachers and educators to provide online programs for learners. E-learning is a method of learning that is experienced using computer/ related technology and the Internet inside and outside educational institutions. Teachers and learners do not come to school and both are separated by time and place (3). Challenging behaviors in virtual classrooms are a major concern for teachers because the virtual learning environment is disrupted and students' general academic performance can be changed (4). These problems require organized supervision and management of the responsible managers. However, of the virtual classes and the difficulty in management, teachers need to achieve some kind of self-management experience. Classroom management refers to the multifaceted actions that are taken to create, support, and facilitate in-class learning and learning goals. These activities are needed to maintain an effective learning environment (5). Behavioral and disciplinary problems of students in schools are one of the oldest and most central problems of officials and teachers in school and classroom management. According to the definition of management and online classes conditions, traditional management and supervision in cyberspace by the principal have their problems. Therefore, they have to use self-management teachers in their profession more than in the past. As a result, recognizing teachers' self-management is one of the most effective strategic methods to improve the educational system and its quality, as well as effective teacher-student communication in cyberspace (6).

In this approach, self-management is an internal phenomenon and tendency that occurs in a person's behavior and actions. This phenomenon requires the recognition of values and abilities in humans (7). In this research, we refer to four principles and dimensions of this research; one of them is the value of self-scrutiny, which is one of the insight dimensions. In this way, man must know his inner values, because by knowing these values, man can better understand himself and know his needs and meet them, and therefore, he can plan and manage to recognize his inner values, or in other words, has control over himself. The other is to prioritize important things for the person, and these priorities become his goals over time, and actually, the person's tendency in this area is strengthened. Then, doing these important things means doing the same goals that must be done by the person completely and reflected in the person's behavior. Finally, it is important to have a broader view of values and a vision to achieve goals, as well as to do these important things according to the horizons ahead, which is the end of one's view of self-management and each person's vision in achieving self-control in any field. Therefore, these principles, respectively, make human values known and then plan to achieve the goal, which is done in the shortest time and even meaningless values have no influence on it, which is the desired behavioral outcome of self-management (8).

The concept of self-management has not yet been sufficiently explored. Although many studies have investigated the self-management concept. Shvets (9) believes that the ability to organize and plan one's educational activities and monitoring and evaluation is called self-management… therefore, school teachers, especially in these situations, should be aware of self-management to better understand the concept

of self-management. Of course, teachers' views of self-management are different. These different perspectives necessitate the research of teachers' perspectives on self-management, and this important subject cannot be answered by conducting a single study. Due to the novelty of this issue in the Iranian education system, research has been done in this field. In this regard, Alblwiet al. (10) in a study entitled "Delay in Social Networks: Predictors of Types, Stimuli, and Acceptance of Reciprocal Measures of Self-control" concluded that the individuals with more self-control in cyberspace can manage cyberspace use better, and the less procrastination they will have in cyberspace. If one has little control over oneself and becomes addicted to cyberspace, he gets involved in a stressful and boring environment. In addition, Jiang et al. (11) in a study entitled "Developing Habit Behavior in Online Games: Understanding the Moderating Role of External Networking" concluded that digital habits in cyberspace and online games can have devastating effects on people and that this effect is greater and more destructive when self-control is minimized. If one manages his actions and activities, he can increase self-efficacy in his virtual activities.

Krishen et al. (12) in a study entitled "Digital Self and Virtual Satisfaction: An Intercultural Perspective" concluded that people's satisfaction in virtual social networks increases if a person has cultural intelligence and understands intercultural differences, as well as manages his values and activities in cyberspace. In another study, Rybakova& Bigelow (13) concluded that cell phones and cyberspace played an important and useful role in achieving educational goals, but its negative effects on lack of self-management became apparent among individuals. One important way of self-management is to acquire digital literacy because the correct way to use online tools seems necessary.

Sajeevanie (14), also in a study entitled "The importance of Self-management and Futurist Ideas: A Critical Perspective" concluded that self-management includes many important components like self-care management, self-mastery, quality management, self-management, financial management, self-development, self-marketing management, disciplinary self-management, and self-performance management. In addition, the researcher has introduced a thematic framework to establish the relationship between self-management and self-performance and to identify the mediating role of their ability.

Niu (15) in a study entitled "Teachers of Social-Emotional Skills and Student Self-Management" concluded that teachers used solution-focused skills methods in their classes.

The study of research backgrounds about self-management in cyberspace showed that, in Iran, most of the quantitative research has been done in this field, and some of these studies are experimental and others are longitudinal studies. Furthermore, the importance of paying attention to self-management in cyberspace leads to progress in the entire education system and the progress of students and teachers. In addition, addressing self-management challenges emphasizes creating an atmosphere in the online class where children feel safe and emotionally connected to others so that they can learn the necessary educational skills. Also, when challenges occur in cyberspace, the students get confused and learning becomes impossible, and it is the teacher's self-management task to identify these challenges and provide a suitable learning environment and conditions by controlling them. Accordingly, the present study seeks to answer the question of how teachers of (public) primary schools in Shiraz describe self-management in cyberspace based on their lived experiences.

Methods

Research Method: This qualitative research was carried out using a Husserlian phenomenology-descriptive approach. Because this study is based on a phenomenon for which there is no previous theory and background and the study of an experience is considered, therefore, the method of phenomenology has been used. Since the

participants describe their experiences objectively, Husserl's phenomenological method has been used.

Research Participants: The participants in the present study were primary school teachers in Shiraz public schools. Using a purposeful approach and standard sampling method, teachers who had experience in primary schools were selected. Participants of this study were 17 primary school teachers who had the inclusion criteria. These people were interviewed. The end of sampling was determined by theoretical saturation. But the researcher continued the interview with a few more people to ensure that he reached the saturation point. Table 1 presents the demographic characteristics of the participants.

Data Collection: In the present study, data collection was performed using semi-structured interviews. For interviewing the participants, a protocol was first prepared and provided to them online. In this protocol, while stating the exact purpose of the research, the information that should be provided to the researchers was specified and at the same time, they were assured that the information will not be published in any way with its specifications and only general information will be published in the form of topics or components of experiences. After satisfying the participants, the interview questionnaire was given to them and after completing it, they returned it. It should be noted that this is an interview questionnaire that due to the prevalence of Corona virus in the country and the impossibility of conducting face-to-face interviews, has replaced face-to-face interviews, which is about the participants' descriptions of their experiences. This means that because of Corona, participants read the interview questions and answered via WhatsApp. For a response to questions of the interview, 25-35 minutes were allocated.

It should be noted that the interviewer's information was provided to the interviewees to contact him in case of any problems or ambiguities. It is noteworthy that, after thematic analysis of the participants' responses, the findings were returned to them for final confirmation. This caused some of them to correct or change the perceptions of their interviews.

Data analysis: In this process, the data obtained from the interview were organized in the form of a table of initial codes and then the mentioned data were analyzed. As shown in Table 2, in the first stage, repetitive data containing important and key themes were selected as basic themes during a continuous comparison process and based on similarities.

Table 1: Profiles of Research Participants

Code	Gender	Field of study	Teaching level	Record of service
1	Male	Elementary Education	First grade	10 years
2	Female	Basic sciences	Second grade	20 years
3	Male	Elementary Education	First grade	15 years
4	Female	Elementary Education	Third grade	30 years
5	Female	Elementary Education	First grade	16 years
6	Male	Education Management	Sixth grade	12 years
7	Female	Elementary Education	Fourth grade	17 years
8	Female	Elementary Education	Second grade	15 years
9	Female	Elementary Education	Sixth grade	24 years
10	Female	Elementary Education	Third grade	16 years
11	Female	Elementary Education	Fifth grade	20 years
12	Female	Elementary Education	Sixth grade	29 years
13	Male	Education Management	First grade	11 years
14	Male	Educational Science	Third grade	15 years
15	Female	Elementary Education	Fourth grade	17 years
16	Male	Elementary Education	Second grade	12 years
17	Male	Elementary Education	Fifth grade	10 years

Table 2: Basic and Organizing Themes and Global Self-Management Themes in Cyberspace

Evidence	Basic themes	Organizing Themes	Global theme
The students did not like cyberspace at all and they like to be present in the classroom to teach. Many students said they are bored of online classes. So I made a cyberspace dynamic for them and asked them to participate and say, for example, teach this lesson today (code 1). I used all the students to teach. Sometimes I gave conferences. The students had conferences for lessons like science (code 10)	Involve students in virtual learning	Or Self-management skills related to students' challenges	Self-management in cyberspace
I created interesting motivations for students to like being in class (Code 1) Students are not motivated like in face-to-face classes and a lot of work needs to be done to keep their motivation high. Use a variety of uploaded videos (Code 2) To motivate the students, I invited groups of two students to the school and gave them prizes (Code 4). We encouraged the children to make videos and send them to other friends in the group, and the children's comments was motivate them (Code 6). In order not to cause boredom in the students, I often sent a clip or animation to the group and the children liked them and got motivated (Code 10).	Encouraging unmotivated students to learn in virtual space		
Some children did not take the rules of the virtual classes, such as the time of homework, practice, and being online on time, very seriously, but each teacher, according to his knowledge of the children, encouraged, punished, and deprived the children to be more regular (Code 1). We encouraged the students to send their homework a lot (Code 10).	Encourage and punish students who did not do their online homework		
Students who were very active in the class but very mischievous were hurt in this situation because the families could not control them and did not listen to their parents, for cases like this we had to call each one of them and communicate with them and motivate them through video calls so that they do not feel homesick and being away from school (Code 5) One of the challenges is the lack of eye and face contact that I tried to make the classroom real by video contact with students (Code 7). For students who did not have the facilities of cyberspace, we taught them personally at home so that they would not lose their classes (Code 8). To communicate emotionally with students through the Shad program and video calls on WhatsApp, we were able to manage (Code 9). I had an intimate relationship with the students so that the student's parents could easily share with me if they had a problem (Code 10).	Establish a close emotional connection with students who are unable to connect with cyberspace		

Evidence	Basic themes	Organizing Themes	Global theme
For the students to be able to do their homework better, we avoided assigning a lot of homework and used more homework that was skill-based (Code 8). Because students were bored in cyberspace, I tried to assign a little homework but skill-oriented, such as making clips and filming themselves (Code 10). Homework should have been varied so that it would not be boring, it would not be heavy homework and it would be functional homework (Code 11).	Online skill-based assignments		
I made video calls and had face-to-face contact with students, and this contact was in groups so that students could see each other (Code 10). Many students could not find friends because the classes were held in cyberspace, sometimes we made group calls so that the children could talk and become friends (12)	Face-to-face communication between students to make friends in cyberspace		
Many children had difficulty doing their homework and we could not check all the homework at once because we had 40 students and it was not possible for us every day. That's why we chose a group leader and they were divided into groups of 3 to 4 people, and the group leader checked the homework and students could consult with each other (Code 3). I grouped the students in my class and chose a name for each of them, and the head of the group implemented the tasks that I submitted to them in the group and gave me the work report (Code 10).	Virtual grouping and selection of virtual group leaders for students to think in cyberspace		
Children often avoid writing homework online. To manage them, I tried to make my homework in such a way that the students send their homework when I am teaching (Code 14). I had created a competitive environment for submitting homework, which prompted students who did not do their homework online to be sent immediately (Code 15).	Request the students' homework at the same time as their online class to encourage learners to do homework online		
Sometimes I would see poor students fall behind in live classes and not learn. After class, I would give them a one-on-one video call and explain what they had not learned again (Code 16). After class, some children did not understand a subject, and f they did not learn, in the next session, the order of the class would be disturbed, therefore, to manage this issue on their private chat page, I tried to explain their problems (Code 15).	Online teaching to poor learners to solve their problems		

Evidence	Basic themes	Organizing Themes	Global theme
In schools, teachers used to be intimate and exchange information during breaking time. To manage this issue, we formed virtual groups to exchange with other colleagues, although it was not enough in person, coordination is done between teachers (Code 3). Due to the friendly groups we had, we tried to provide training for content production, etc. to other colleagues (Code 5). We had a group with our colleagues to use other experiences (Code 8). To solve the challenge of non-exchange of colleagues, groups for academic thinking were formed (Code 11).	Forming virtual groups between colleagues for consensus among teachers	Self-management skills related to colleagues' challenges	
Many teachers did not have enough media literacy and to manage this issue, we solved the problem with peer supervision, which was held electronically (Code 4). Sometimes we would join our colleagues in our class groups or I would join their class group for two or three days to get acquainted with their work routine. If there was a problem, we would try to talk to each other and correct each other's method (Code 9).	Establish a peer review system in virtual classes		
With the consultation and consensus of colleagues, the most appropriate content production software and also the most appropriate methods were selected (Code 7). Each of us, after getting acquainted with the new software, tried to share our experiences and agree with each other (Code 8). If anyone had used a particular application and was satisfied, they would send it to others (Code 12)	Generate content by consulting with colleagues		
Because it was very difficult to teach individually, our school had two sixth grades and two teachers, and we worked on several lessons together to make our work easier and shared the teaching, and it was like our work was halved (Code 9). In our peer groups, each teacher sent his useful video of a specific lesson, and others used it too (Code 8).	Specializing ze teaching to reduce teachers' teaching time		
This corona made us upgrade to better manage ourselves and our class, get acquainted with different software and use it to produce content and teach to our colleagues (Code 14). To manage ourselves and keep up with the advancement of technology and the need to teach virtually, we had to strengthen our media literacy as well as share what we were learning with our colleagues (Code 16).	Improving the media literacy of colleagues in the face of technological advancement		

Evidence	Basic themes	Organizing Themes	Global theme
By designing an accurate annual and daily lesson plan, I strengthened classroom management in this way so that I would not waste my time (Code 4). We planned to hold our class at a good time, and in the daily lesson plan, first, the presence of children would be checked, and I managed the class schedule and the hours of lessons and books based on the daily schedule (Code 6). Some students did not have access to infrastructures such as a phone and a cell phone I was a teacher and could not do anything to them, and I just could give more time to the students with one cellphone to send their homework later (Code 5). Dividing the teaching hours for students who had a sibling in elementary school and used a phone, and we taught the teaching hours for these people separately and at a specific time (Code 8)	Online planning to schedule online teaching	Self-management skills related to management challenges	
I made part of the class learner-based and the children explained what they had learned, and the teaching method was moving to a student-based approach (Code 4). Several parents were working and we consulted with the parents about the class time and coordinated the class time so that all students were comfortable (Code 5). Some families had two or more students and had to use one phone, so we set up online class hours so that everyone could attend, and we also held some classes offline (Code 11).	Online coordinate with families to teach online		
I paid part of my salary to buy a mobile phone so that I could keep up with technology and I paid for the internet (Code 4). Providing phones by schools and charities for students who did not have, providing internet packages for deprived students (Code 10).	Budget allocation for virtual infrastructure		
I was able to attract the cooperation of parents and children for the optimal management of my class and I managed the class with maximum efficiency and effectiveness (Code 4). When a student told me that something was wrong with me and I did not know if he was telling the truth or lying, I would first contact the parents to manage such problems and make sure the student was speaking correctly (Code 2). By grouping students, we tried to control class management (Code 7).	Manage online classes to maintain online order		
By sending the attendance link at the beginning of the class, the student's presence in the class was managed (Code 8). I followed up on some of the children who did not attend class, and I talked to the deputies and the school principal and asked them to follow up (Code 9).	Manage online student attendance for students who did not attend an online class		

Evidence	Basic themes	Organizing Themes	Global theme
To create discipline and so on in online classes, we specified some rules to allow opening the webcam and the voice and the time of sending homework, etc. (Code 2). I set rules for my online classes to maintain order in cyberspace (Code 4).	Set online classroom rules to prevent virtual classes from being marginalized		
Students should attend class on time and the lesson is explained to them, and also to solve this issue, we met at the beginning of the year and asked the mothers to help us since we are not at their homes and do not have access to students, mothers play the role of teacher at home (Code 3). Some students sent pictures of other people's homework instead of their own. I could just talk to their mothers (Code 5).	Involve parents in supervising students at home		
In the beginning, I had a lot of trouble teaching online. I could not go ahead with the education syllabus, I was constantly behind the syllabus. To manage this problem, I tried to prepare a daily lesson plan for myself (Code 13). I had prepared lesson plans and written down my steps and working hours so that I could better manage my time and not confuse the students (Code 17).	Having an online lesson plan for time management		
integrated teaching methods by combining cyberspace with the student's experiences and doing it through students' presentations (Code 4). I used attractive clips and videos and demonstrated teaching methods online (Code 1). First I sent ready-made content to the children, then I wanted the students to watch it and teach it (Code 3). We used kids to produce content and we used some kind of reverse learning (Code 5). This year was much better because many people were familiar with different methods such as Skyroom, Adobeconnet, Google Mate, etc., and various programs, which we could use to teach some parts that could not be prepared in the form of films (Code 5). I would take a video of myself and give it to the students and engage the student in class activities online with the question and answer method (Code 6). Instead of using the Shad application that students could not use, we used WhatsApp (Code 7). I tried to make my teaching varied, sometimes I made PowerPoint, sometimes I made videos, and sometimes I used X Recorder software (code 9). Due to the injuries to the children's eyes, we reduced the teaching time (Code 11). We introduced a series of new things to children and new teaching methods such as a series of new functions like variety and innovation in the learner method, application of music, etc., to attract their attention (Code 11).	Generate engaging content to prevent students from getting bored of cyberspace	Self-management skills related to training challenges	

Evidence	Basic themes	Organizing Themes	Global theme
I minimized the test pencil paper and put skill and performance training at the top of the program (Code 6). We sent questions, the children saw the picture of the question, did it, and shared it in groups in the form of audio or video, and the children used each other's answers (Code 5). Some parents wrote the answers to the exams instead of their children. To manage this, we contacted the parents and asked them to cooperate with the teachers (Code 7). Because cheating was usually possible with written exams, we evaluated it by video call (Code 9).	Online assessment of students		
I used different feedback techniques such as teacher feedback, student peer assessment, student self-assessment, and partly student-parent assessment (Code 4).	Online feedback		
Every day I tried to be creative and use different tools during online classes to help weak students to learn more (Code 13). Poor students disrupted the online classes, so I enhanced my management in the classroom by making handmade dolls, and crafts, and adding creativity to my lesson plan (Code 17).	Generating creativity in cyberspace to enhance students' learning		
When there were in-person classes, children talked to their friends in the class, interacted with the teacher, and sometimes there was a sense of humor, but in online classes, due to the short teaching time, the atmosphere was boring, and to manage this problem, I tried to have a sense of humor in the class (Code 16).	Use a sense of humor to avoid the boring atmosphere of online teaching		
Suppose that children every day see a movie with an actor, so they get bored and no longer watch the movie with enthusiasm. So I asked mothers to make some video clips for teaching (Code 14). I asked mothers to make some videos for variety in teaching so that children can show their passion for clips (Code 13).	Involve parents in online teaching to create a diverse environment		
Because of Corona, we had to teach online. At first, I made films that I only taught in the form of lectures, but I realized that they did not have the desired performance and the children have lost their motivation. For this reason, I also used teaching methods such as demonstrational, in-group, experimental, role-playing, etc. (Code 17).	Combining different teaching methods for better online presentation		
Parents who are employed sometimes have problems with virtual class time and I tried to be flexible to better manage this issue and hold the class during the hours when the majority agreed and could attend the class (Code 15). Because the children were tired of virtual teaching, I tried to understand them and be more flexible (Code 14).	Flexibility in virtual teaching		

Then, in the second stage, the basic themes were divided into more general and abstract categories based on similarities, and during the process of continuous comparison, the organizing themes took shape. In other words, in coding, the initial codes were compared with each other, and while merging similar items, the related categories were placed around a common organizing theme. In general, the results of the interviews and the coding process showed that primary (public) teachers in Shiraz can be organized into four themes: Self-management skills about students' challenges, self-management skills about colleagues' challenges, self-management skills about the management challenges, and self-management skills about education challenges. Eventually, the pattern of elementary teachers' experiences of self-management in cyberspace was formed.

We did not use any software in this analysis.

Data Validation: To validate the quality framework of the credibility criterion, the triangulation method was used and tried to collect this data by collecting sufficient data from multiple sources, to create this credibility and reliability. Trustability refers to the stability of results in different times and conditions and is equivalent to reliability in quantitative research. Validation for the collected data is examined. Therefore, in this project, the following methods were used to validate qualitative data:

A: Acceptability and validity: The extent to which the results can be accurate and reliable to know. In this section, to achieve this belief, the alignment method was used and tried It has created this credibility by collecting sufficient data from multiple sources. This criterion has been done using the following techniques:

1- Using the technique of obtaining accurate parallel information, such as presenting the results of data analysis to specialists.

2- Using the member control technique by presenting the results of data analysis to the respondents to know their reaction.

3- The researcher's point of view in expressing the assumptions of his theoretical orientation.

4 - Self-review of the researcher during the process of data collection and analysis.

B: Reliability

The extent to which the results are consistent with the data collected. This criterion actually refers to the stability of the results in different times and conditions and is equivalent to the reliability of quantitative research. The following technique has been used to achieve this criterion:

Two researcher who had more ability and expertise in conducting research as an external judge and observer, have controlled and documented the project and have been used to examine the relationship between the results and the collected data.

Results

From the combination and integration of 129 initial codes, 30 basic themes and 4 organizing themes were formed.

According to the above table, based on the analysis of the interview and the coding process, after preparing and setting the tables as part of the qualitative analysis, the resulting themes were grouped at a higher and more abstract level to achieve the categories. After comparing the extracted themes, the related themes were categorized into a general category. Based on the titles in the related theories or themes derived from the research literature, general titles were considered for the categories.

Using the global, organizational and basic themes presented in the previous step, we attempted to draw a network of self-management themes in cyberspace from the perspective of elementary (public) school teachers, which is shown in Figure 1.

Discussion

The outbreak of the coronavirus shocked the world. It dominated all the big and small businesses and thousands of other small and large businesses on which people were dependent on them in their daily lives.

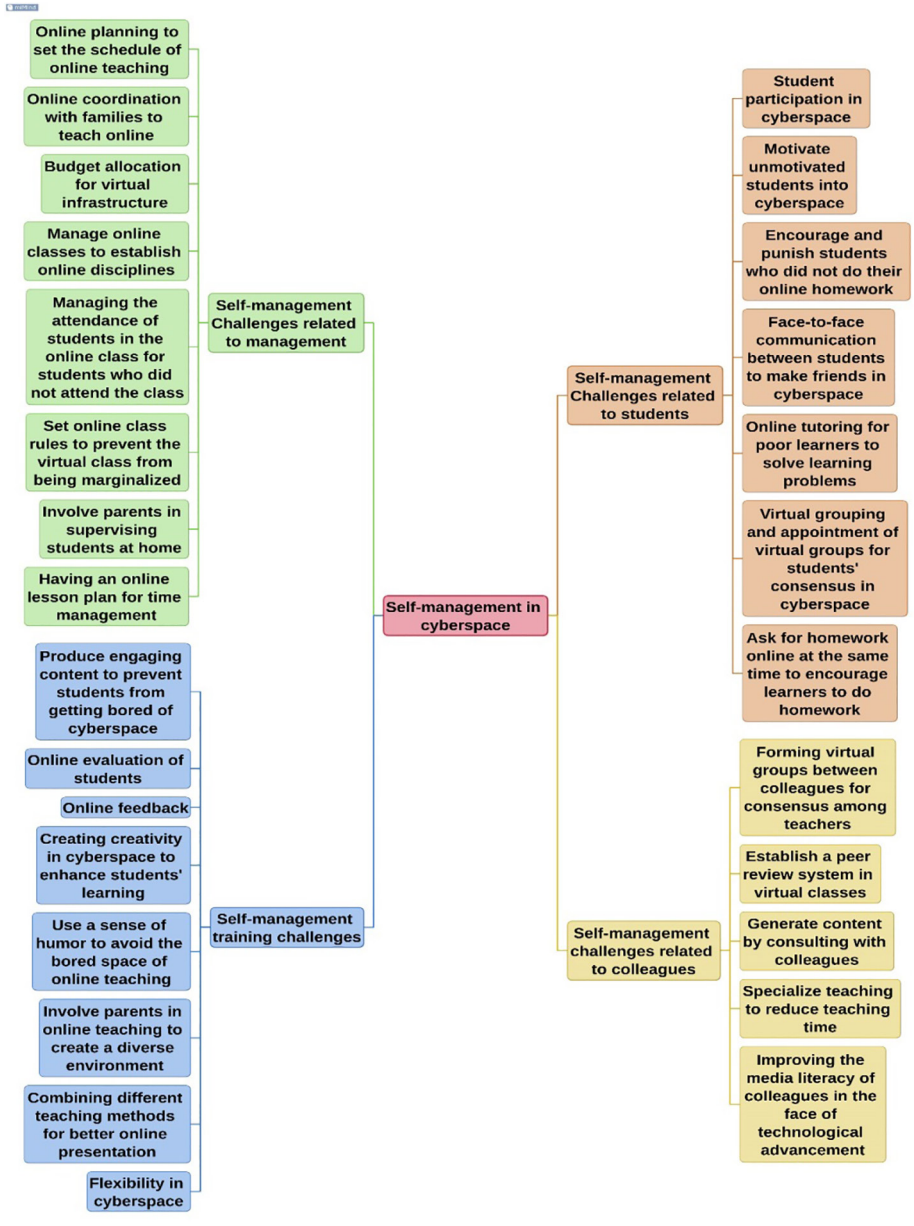

Figure 1: Network of Self-Management Themes in Cyberspace from the Perspective of Elementary Teachers

In the meantime, the education sector wa s also getting involved and in-person classes were closed. So this issue became the main concern of the principals and staff in the field of education. With the closure of the classrooms, the issue of students' education was raised and was decided to be pursued virtually. While this type of education had not been seriously considered until now, at this time it was at the center of everyone's attention, and then schools launched virtual education systems for their students.

Thus, although virtual learning was one of the solutions during the coronavirus epidemic to continue the teaching-learning process, it had many problems. Therefore, identifying and trying to eliminate them is very important. Considering the need to identify the challenges of virtual learning during the outbreak of the virus and teachers' self-management in this crisis, in this study, the lived experiences of primary school teachers of self-management in cyberspace were investigated. Based on the findings of this study, the themes extracted from interviews with teachers were divided into four themes:

student-related self-management, education-related self-management, self-management related to colleagues, and management-related self-management.

Explaining the findings of this study, it can be said that one of the themes that were expressed as organizing themes of self-management in cyberspace by elementary school teachers with more than 10 years of work experience, was related to students, including issues such as engaging students in virtual learning, motivating unmotivated students to cyberspace, encouraging and punishing students who did not do their online homework, and establishing close emotional relationships with students who cannot connect with cyberspace, online skill-based homework, face-to-face communication between students to make friends in cyberspace, virtual grouping and selection of virtual group leader for students to think in cyberspace, request to do homework online at the same time to encourage learners to do homework, and teaching privately to poor learners to solve learning problems. Among the reasons for achieving such a finding can be the unpreparedness of students to acquire knowledge and learning in cyberspace, lack of sufficient skills to work in cyberspace, one-sided virtual education, and lack of a good platform for face-to-face communication with others, as well as the lack of participation and cooperation with others. In this regard, Oh, Chan & Kim (16) mentioned independence and freedom of action, enjoyment of learning and active motivation to learn, and having basic technological skills as elements affecting the performance of a successful learner. Therefore, to improve the level of students' performance and increase their interaction and participation in education, while educational content should be prepared attractively and diversely, teachers for self-management in this field should use multimedia and design group activities in a variety of ways to provide training to learners and thus encourage them to work and participate in the class. Accordingly, Zwart, Goei, Noroozi & Van Luit (17) stated that the interactivity of education, in addition to reducing learners' anxiety and boredom from the teaching-learning process, by involving learners in the process of education, leads to the learners' progress. According to the research findings, students' traits play an important role in different situations. However, there is no doubt that learners' influential factors, such as most psychological variables, are influenced by individual differences. Each student is an individual and reacts uniquely. Self-management allows students to follow homework, study for exams, and focus throughout the class. Students' behavioral structure plays a key role in self-management. So different students are different people who need to be taught in different ways. Differences in student characteristics should also be considered (18).

Another topic that was mentioned as organizing themes of self-management in cyberspace by primary school teachers with more than 10 years of work experience was related to education, which includes items such as producing interesting content to prevent students from getting bored of cyberspace, evaluating online students, online feedback, creativity in cyberspace to enhance student learning, use a sense of humor to avoid the boring space of online teaching, involve parents in online teaching to create a different environment, combine different teaching methods to provide better online and flexibility in virtual teaching. According to Handayani, Wangid & Julius (19) research, new learning methods, curricula, student assessment, infrastructure, employment, education and occupations, gender, parental involvement, and the role of national, regional, and local governments in all areas need the teacher to be successful in self-management. According to the research findings, the more desirable and up-to-date the educational performance, the higher the teachers' self-management. Also, as self-management increases, students' academic and educational performance will improve and they will have more focus and attention on educational assignments. Teachers in the

field of virtual education, in addition to the skills required in classroom environments, must also have the necessary skills and ability to communicate and interact with students through information and communication technologies to create an intimate, supportive and receptive environment for students to participate and interact in classroom topics (20). However, the virtual classrooms are not uniform and attractive. The quality of education decreases due to the high volume of content, teachers' teaching methods are not compatible with virtual education, teachers replace reading lessons instead of presenting and analyzing educational content, and finally, the lack of mastery and familiarity of some teachers with software and technological skills were among the main problems in the teaching and learning process during the Covid 19 crisis. In this regard, we can refer to research findings (21) that point to the weakness of virtual learning such as a decrease in face-to-face interactions and the lack of students' participation in the teaching-learning process. In addition, some researchers believed that attractively designing educational content and using different multimedia in providing educational content is one of the self-management strategies in cyberspace that should be considered by teachers in virtual education. However, in the process of virtual education, teachers, while having to communicate with students and provide a platform for their participation in the educational process, must use the facilities and capabilities of technology to pay attention to learners' needs and even the construction and production of knowledge by them.

Another theme that was mentioned as the organizing theme of self-management in cyberspace by elementary school teachers with more than 10 years of experience was colleagues-related issues, which included forming virtual groups between colleagues for teacher collaboration, creating a peer-to-peer monitoring system in virtual classes, specializing in teaching to reduce teaching time, producing content by consulting with colleagues, and improving colleagues' media literacy in the face of technological advancement. According to the research findings, favorable interactive behaviors between colleagues affect others. Teachers who exhibit these interactive behaviors develop relationships with their colleagues and self-management. According to the research of Gueye (22), self-management in cyberspace is the most important concern for teachers who are not able to manage and adapt themselves. Teachers' ability to adapt to dynamic and unpredictable changes in their environment must also be ensured.

Another group of themes that were mentioned as organizing themes of self-management in cyberspace by elementary school teachers with more than 10 years of experience was management-related items, including items such as online planning to schedule online teaching, online coordination with families to teach online, budget for virtual infrastructure, manage online classes to maintain the discipline, manage student attendance online for students who did not attend online classes, setting up online class rules to prevent the virtual class from being marginalized, involving parents in supervising students at home, and having an online lesson plan for time management. Teacher efforts for optimal teaching in cyberspace are not possible without the cooperation of students. Teachers' self-management in cyberspace is a clear result of the teacher's actions and reactions to students' behaviors, and the student should never be the only one to identify the cause. One of the main obstacles in student cooperation is the existence of managerial shortcomings between teacher and student, so since learning requires spending appropriate time on the subject, allocating sufficient and realistic time for teaching can lead to the effectiveness of the teaching-learning process. It is worthwhile for professors and facilitators of the virtual education process to help students learn by holding regular classes and proper planning for the proper use of available time (23). These results are consistent with the

research of Abbasi, Hejazi & Hakimzade (24) about virtual class management and they believe that class management is shaped by the optimal learning process. Classroom management is the responsibility of the teacher, who must manage the classroom to achieve the goals before training or any educational or behavioral action. In classroom management styles, an authoritarian style is one in which teachers and students respect each other's rights and respect each other, and the teaching-learning process is better. To effectively manage the classroom virtually, the teacher must be familiar with different types of educational strategies so that, if necessary, he can use these strategies effectively in his situation, thus providing a calm environment without psychological stress for his students.

In general, although using virtual learning systems during the outbreak of Coronavirus was with aim of reducing commuting, social and physical distance, as well as preventing the spread of coronavirus at schools, this type of education was not without problems and most of these problems can be attributed to the sudden and unforeseen change of the education process from the traditional to the virtual model. In addition, according to this research, the production of useful and appropriate educational content for virtual education, appropriate teaching methods, as well as teachers' familiarity with using e-learning systems and other cyberspace applications, etc. are all self-management strategies for teachers to better teach students in cyberspace.

Limitations and Suggestions

Relating to generalizability and limitations of the study, there is no generalizability in qualitative research, and transferability is discussed. This means that the findings of this study can be used for similar contexts. The main limitation of this study was that the interview questionnaire was used instead of a face-to-face interview because of the Coronavirus.

It is suggested that future researchers compare self-management in elementary and high school cyberspace from the perspective of teachers, and by adding a quantitative approach, do the research with a combined approach.

Conclusion

In this study, an exploratory model was formed in a global theme called teacher self-management in cyberspace.

Ethical Consideration

In this study, ethical considerations include informing the participants about recording the text of the interview, obtaining permission, feedback on the results of the analysis of the participants after analyzing the content of the interview, respecting the views of participants, and maintaining confidentiality, and non-disclosure of their identity was observed.

Availability of Data and Materials

The data that support the findings of this study could be provided by the corresponding author on request.

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Conflict of Interest: None declared.

Authors' Contributions

Z.B. devised the study concept. M.S.S. designed and supervised the study. Z.B. and M.M. analyzed the data. Z.B. interpreted the findings and created the early draft. M.S.S. participated in coordination of the study and helped M.M. to critically revise the manuscript.

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