Original Article

Analysis of virtual education challenges in exceptional schools of Guilan province from the perspective of teachers

Azadeh Ghorbani Piralidehi[*1], Marjan Masoomifard[2]

1. Ph.D.Candidate of Education Distance Planning, Department of Educational Sciences of Payam Noor University
2. Assistant Professor, Education Distance Planning, Department of Educational Sciences of Payam Noor University

Abstract

Virtual education will be an effective educational system in students' effective learning during the corona and post-corona outbreaks, So the research method is quantitative, applied and descriptive-survey. The study population was all teachers of exceptional schools in Guilan province with a population of 690 people who were selected as a sample using systematic random sampling method. Data were collected through a researcher-made questionnaire. The validity of the questionnaire was confirmed by consulting experts from exceptional education in Guilan province and some university professors. To evaluate the reliability, a pretest was performed and a Cronbach's alpha of 0.92 indicated the reliability of the questionnaire. Virtual education challenges were analyzed through R-type exploratory factor analysis technique. Findings showed that the four infrastructural-technical and economic challenges, content and evaluation, cultural-social and organizational-managerial challenges explained 64.93% of the total variance and the main effective challenges in education Virtual schools in exceptional schools of Guilan province are from the perspective of teachers. Given the importance of overcoming these challenges, more interaction with knowledge-based companies, upgrading a SHAD educational network, effective interaction with telecommunication networks to strengthen the speed and bandwidth of the Internet, design and operation of the system Counseling, experience sharing webinars, parent briefings, and student support charities are recommended.E-learning.

Introduction

The outbreak of coronavirus has made the situation difficult for the whole world in different parts of the world. Covid's disease is an infection with respiratory symptoms that is thought to have emerged as a human-animal transmissible virus and mutated or otherwise, it has been adapted to provide the possibility of pathogenicity among humans [1]. The global prevalence of Covid 19 as an emerging disease is complex and multifaceted in nature and will undoubtedly have far-reaching consequences in a variety of areas. This epidemic has not only challenged many of the achievements of the medical and health sciences, but has also raised serious questions about a significant portion of the social and political foundations [2]. Since no specific control and method has been discovered for the prevention and treatment of this disease, one of the ways to control and prevent the spread of this disease is to stay at home, avoid daily physical interactions and quarantine at home [3]. Of course, this does not mean that the virus is merely a threat and that its consequences will be all negative and undesirable. This phenomenon, despite all the threats, is accompanied by opportunities, and in spite of all the destructive and negative

*Corresponding Author: piralidehi@gmail.com

consequences, it will certainly bring positive and desirable consequences [4].

One of the most severe effects of the Corona pandemic crisis has been on education systems in all countries of the world, including Iran. Coronary heart disease has led to the closure of courses in schools and universities. Instead of canceling their curricula, many universities encouraged professors to offer instructional materials and assess learning through distance learning and online training [5]. In relation to schools, the importance of this disease is multiplied because of the high population of students, the density of classrooms, the use of public facilities and common spaces, and as a result, the health consequences and the high probability of transmitting the virus through this group. The need for care and control of educational spaces has been one of the first measures taken by countries with this disease. On March 6, approximately 291 million children and young people were forcibly excluded from school due to the widespread closure of schools by governments in order to slow the spread of the corona [6]. In such circumstances, the expansion of virtual education was defined as the educational priorities of countries. Although the change in the status of virtual education and e-learning occurred unexpectedly and rapidly, but e-learning, as the most obvious application of information and communication technology, has added an aspect to the charter of basic and higher education, which as a new model, has transformed the field of education. Areas of information and communication technology, including virtual education, can play an effective role in the transfer of human knowledge, especially in the Corona crisis. Therefore, addressing virtual education is not only an alternative but also a necessity [7]. Some researchers consider virtual education and e-learning to be a modeled system for effective teaching and learning [8]. In fact, e-learning and virtual education, application of web technology, network and other electronic tools in order to teach and create learning experiences are useful and effective [9].

One of the methods of education during the corona outbreak was education through television programs. In addition to television training, teachers were asked to follow the training through internal media. In order to organize students' virtual education in the Ministry of Education, a (Shad) student education network was designed and implemented. The structure of a (Shad) student education network is the same as the structure of a real school, meaning that students enter the virtual classroom and the teacher is present at the same time according to the class schedule provided by the school principal and follows the teaching and learning process. Supervision of teachers 'virtual classrooms and students' attendance is the responsibility of the school principal and administrative staff. Shortly after the implementation of this educational network, 8 million 321 thousand students, 569 thousand 431 teachers and 115 thousand 301 school, s administrative registered in the educational network of students (Shad) [6]. In the meantime, education for students with special needs was not neglected. This group of students forms a special section of the student community that faces various educational problems due to different physical and mental problems. The issue of educating students with special needs is very vital and important due to the special and diverse educational needs of this group of students. Guilan province 1959 has disabled students, 114 deaf students, 10 students with physical disabilities, 83 autistic students and 20 blind students. In total, out of 2186 students of special schools in Guilan province, 1562 students have access to of a (Shad) student education network [10], which includes a significant number of students. The important issue is that naturally the introduction and implementation and use of new educational models, including virtual education, for those who have been trained and educated for many years in a traditional and consistent way, will face problems and challenges. As a result, it will be very important to remove these barriers and challenges in order to increase the capability of the virtual education method.

Although various researchers have tried to study and analyze the challenges of virtual education, but limited studies have examined these challenges in the education of exceptional students with special needs, so this study tries to analyzing the challenges of virtual education in exceptional

schools of Guilan province from the perspective of teachers, take a step towards improving the education of this group of students.

Theoretical foundations and background review
The Distance learning has been around for about a hundred years in developed countries. But in underdeveloped countries this record is not so high. In the most populous developed countries of the world, distance learning provides very important opportunities for education [11]. The term e-learning was first coined by Cross and refers to a variety of teachings that use information and communication technologies and the Internet to learn [12]. E-learning is sometimes known as virtual education. E-learning is a type of education that the main part of it is done electronically and using electronic and computer platforms and the teacher and learner are not physically and simultaneously present in a classroom. Educational content is delivered to the learner using electronic methods such as sharing on web pages or educational systems, video conferencing, internet communication, telephone [13]. Khan (2005) has introduced various names such as web-based learning, online learning, internet-based education, advanced distributed learning, open and flexible learning, etc., as synonymous with e-learning. In the Fourth National Conference and the First International Conference on E-Learning, terms such as distance learning, open learning, web-based learning, flexible learning, and network-based learning are synonymous with e-learning [15]. In virtual education the learner conducts educational activities via the web; In other words, virtual education is an attempt to complete the training program in traditional education systems that use the potential and extensive facilities of the Internet. The goal of this program is to provide equal information to all learners, regardless of their geographical, social and economic location [16]. Sanabria et al (2018) believe that virtual education refers to any type of course and training that is done face to face in a way other than traditional methods. Lesson contents may be transmitted via the web or via video, active and interactive two-way images.

In short, distance education is not a new phenomenon, but it is constantly evolving and its methods and tools have been developed with the growth of technology, and over time, its complexity has increased and they have a high interaction and user-friendliness among users. The evolution of the tools and methods used in e-learning can be summarized as follows: print, correspondence, television and radio, fax, audio-visual tapes, CDs, DVDs, telephones, one-on-one video conferencing, computers, Internet, virtual learning environments, content management systems, learning management system, website software and standards development [12]. E-learning and virtual education can also reduce the gap between industrialized and developing countries. E-learning in rural areas can also reduce the gap between urban and rural people and create new hopes in rural communities for dynamism and mobility in the fields of production and productivity, and provide economic growth [18]. There is a similar problem with educating people with disabilities. The target audience of the virtual education system is mostly ordinary people, but one of the groups that can use this system and enjoy its benefits even more than ordinary people are people with disabilities. Due to the limitations of these people, using the benefits of virtual education can create equal conditions for ordinary people in the field of education for these people [19]. Various researchers have tried to analyze the most important challenges of virtual education.

Al-Hujran et al (2013) examined the challenges of e-learning. Lack of awareness about the usefulness of e-learning, lack of clear understanding of the nature of e-learning, teachers 'resistance to acceptance and application of e-learning, learners' resistance to changing traditional teaching methods, lack of continuous access to e-learning websites, weakness of formal education systems E-learning in the provision of the platform, the lack of support from the government and educational institutions for the use of e-learning, the lack of guidelines or the existence of guidelines that have an adverse effect on the usefulness of e-learning, are

mentioned as the most important barriers to e-learning.

Mohseni Taromsari (2009) has stated the benefits of e-learning in creating independence, interaction with content, managing the learning process and the possibility of simulation. Also, its challenges were the lack of integrated national policies regarding the use of information technology in education, lack of proper investment, lack of agreement on e-learning, lack of multiple decision-making centers, multiple implementation centers, low information literacy, The weakness of the support system and the existence of a traditional education system.

Shams et al (2019) identified the infrastructural and managerial barriers to the use of e-learning in human resource training. According to the research findings, the identified infrastructure barriers are weak network communication, weak technical support from the IT unit, weak physical and hardware infrastructure and managerial barriers including inattention and lack of support of managers, lack of staff motivation, lack of specialized human resources in technology. The lack of serious consideration of virtual education by the organization and the weakness of the incentive and motivation system of the organization. Pak Nasab (2020) has identified the strengths, weaknesses, opportunities and threats of e-learning of in-service course for educators of Dehdasht township. The results showed that creating opportunities for educators who do not have the opportunity to attend face-to-face courses and increasing the knowledge and awareness of educators, lack of skilled manpower to teach staff and problems in providing the required electronic resources, Creating opportunities for new education along with classical education and creating faster and more stable ways for vocational training, lack of control and mastery of teachers over learners and lack of appropriate infrastructure for the development of e-learning as strengths, weaknesses, opportunities and threats of e-learning.

Karimi (2020) studied internship training at Farhangian University during the Corona era. The results of the study showed that inadequate infrastructure of Iranian platforms such as Skyroom system and Shad from the point of view of the target community, lack of use of new teaching methods by teachers and lack of effective participation between students and professors are among the most important factors of weak virtual education in obtained experience during the internship.

Abbasi et al (2020) in reviewing the educational network of students (Shad) identified nine important challenges of this network, which were: Inaccessibility all students to virtual space especially in deprived areas and creating inequality in educational opportunities, high internet costs, slow internet speed, difficulty in measuring students 'actual learning and deprivation of teacher supervision, some students' internet and phone addiction, Improper use of other people's content, lack of time for some teachers to teach and evaluate, use of software as a advertising tool, reduce the motivation of some students to study in a new way.

Abbasi Darehbidi and Jafari (2021) examined the challenges of virtual education from the perspective of students during the Corona. The results of their study showed that the most important challenges for students in virtual education include challenges and issues related to educational tools and networks, especially Shad networks, challenges related to teachers (lack of media literacy, lack of student control by the teacher), challenges facing students (Peer avoidance and inactivity), challenges related to schools and the Ministry of Education (inability to establish a consistent and efficient procedure, inconsistency of face-to-face education resources with virtual education), family-related challenges (inability to preparation of educational fields and tools).

Mohammadi et al (2016) conducted a study entitled "Analysis of the experiences of parents of primary school students of the challenges of virtual education with social networks during the outbreak of Corona virus". The results showed that the advantages and disadvantages are classified into five categories. Educational category (advantages: continuing education and creating opportunities for creativity; disadvantages: unwillingness to do class assignments and reduced adherence to the rules of class discipline), Social category (advantages: students

'freedom of action and more parental supervision; disadvantages: elimination of group activities and laziness and students' distraction), cultural category (advantages: the introduction of virtual education into the field of education and Training and creating a new experience; Disadvantages: eliminating the charisma of the teacher and the boredomof some parents), Economic category (advantages: reduction of transportation costs and the need to provide the necessary hardware to use social networks; disadvantages: low time spent working parents) and technical (advantages: improving media literacy Parents; Disadvantages: lack of visual appeal of some videos and lack of mastery of information technology). Therefore, the researchers concluded that due to the problems and disadvantages raised by parents, it is necessary to design a coherent and effective infrastructure to provide virtual education.

Shafiei Sarvestani and Safari Sahlabadi (2020) in their study of virtual education challenges among students concluded that virtual education challenges can be divided into seven general categories including educational challenges, challenges Organized, ethical challenges, infrastructure challenges, supportive challenges, evaluation challenges, managerial challenges, and communication challenges. Salimi and Fardin (2020) analyzed the challenges and opportunities in examining the role of coronavirus in virtual education. The results of their study showed that challenges and opportunities are presented at three levels: macro, medium and micro. Macro-level challenges include lack of strategic thinking of managers and planners, poor policy-making, poor educational technology, and inefficient management. At the intermediate level, challenges such as the weakness of the introduced technologies, lack of independence and freedom of action, and disruption of budgeting were raised and achieved at the micro level. Also, from the participants' point of view, the prevalence of corona provides opportunities at the macro level (providing the ground for change, paying attention to having strategic planning and paying attention to online and virtual training), intermediate level (creating equal educational opportunities, and creating new educational innovation) and micro-level followed. Sepandar and Sadrzadeh (2021) in examining the challenges and opportunities of cyberspace concluded that the most important challenges and opportunities at the level of teachers, in the fields of technology and information technology, management, cultural and social, economic and are placed biologically. They are also categorized at the family level in the fields of information technology and management, management, cultural and social, economic, and at the level of students in the fields of information technology, educational, socio-cultural, economic and biological.

Ebadati et al (2021) in their qualitative study sought to identify opportunities and threats to e-learning in schools. The results of their study showed that the components of cost and effectiveness of education are the most important e-learning opportunities and the components of teacher-student interaction and monitoring of student learning are the most important threats.

Haji et al (2021) in representing the problems of education in cyberspace using the happy program in the pandemic period concluded that teachers' perceptions of the problems and challenges of education in the Shad program include 6 general themes, which are: problems related to Students and parents (low motivation, student dependence on cyberspace, lack of parental cooperation), problems with teachers (stereotyped teaching methods, lack of interaction between teachers, teacher stress), content problems (inconsistency between old books and new educational space, difficulties in producing content), equipment problems (lack of fast internet, not everyone has access to Shad), organizational problems (inefficient in-service courses, strict supervision) and evaluation problems (lack of accurate supervision and Fraud, lack of proper feedback).

Methodology
The research method is quantitative in terms of general approach and applied in terms of purpose and descriptive-survey in terms of data collection method. The study population is all

teachers of exceptional schools in Guilan province with a population of 690 people, of which 479 are women and the rest (211) are men. The number of studied samples was calculated through the sampling table of Bartlett et al (2001), 196 people who were selected using systematic random sampling method and through the list of exceptional teachers in Guilan province. According to the proportional assignment, 69 female teachers and 31 male teachers were considered as the sample. The analysis of virtual education challenges in exceptional schools of Guilan province was done through R-type exploratory factor analysis technique. Before performing factor analysis, it is necessary to check the appropriateness of the data. The KMO test is one of the suitable methods for this purpose, the value of which fluctuates between zero and one. If the KMO value is greater than 0.70, the correlations between the data will be suitable for factor analysis. On the other hand, the Bartlett test should be used to ensure that the data are appropriate for factor analysis stating that the correlation matrix that underlies factor analysis is not zero in society. In order for a factor model to be useful and meaningful, the variables must be correlated, otherwise there is no reason to explain the factor model [32]. Then, according to the review of the backgrounds, a researcher-made questionnaire was designed. The validity of the questionnaire was confirmed by consulting experts from exceptional education in Guilan province and some university professors. To check the reliability, a pre-test was performed and 30 questionnaires were given to exceptional teachers in the province who were part of the community of exceptional teachers in Guilan province but were not studied in the sample. The obtained data were entered in SPSS26 software and analyzed. Cronbach's alpha was 0.92, which indicates the reliability of the questionnaire. After confirming the validity and reliability, the questionnaires were distributed among exceptional teachers in Guilan province. The questionnaire was developed in two parts. The first part was a study of some individual-professional characteristics of exceptional teachers in Guilan province and in the second part of the questionnaire, 20 basic challenges of virtual education were listed and teachers were asked to choose a five-point Likert scale (very low = 1, low = 2, somewhat = 3, high = 4, very high = 5) have your say in relation to each of the mentioned challenges. Teachers' responses were analyzed using exploratory factor analysis.

Results
The results showed that most of the teachers studied were female and married. Also, the average age of teachers is about 37 years. Most of them have been trained in teacher training and have an average of about 13.6 years of teaching experience in exceptional schools in Guilan province. In order to analyze the challenges of virtual education in exceptional schools in Guilan province from the perspective of teachers, first 20 effective challenges were identified and then the studied teachers were asked to choose the option of their choice, to announce the role of each of the challenges in virtual education. Their answers were entered into the software and analyzed. The results of prioritizing virtual education challenges are presented in Table 1.

Table1. Prioritization of Virtual Education Challenges in Exceptional Schools in Guilan Province from the Perspective of Teachers (n= 196)

Challenges	Mean	Standard deviation	Coefficient of variation	Priorities
internet speed and unsuccessful being slow loading of assignments and content	3.86	0.92	23.83	1
Incomplete Shad network facilities	3.83	0.93	24.28	2
The difficulty of the process of evaluating students and the possibility of cheating by them	3.81	0.93	24.41	3
Full-time (24-hour) engagement of teachers in cyberspace of Shad and inability to regulate	3.73	0.95	25.47	4

working hours				
Students' dependence on cyberspace and the resulting mental and physical damage	3.57	0.91	25.49	5
Lack of reinforcement of group activities due to poor interaction of students with each other	3.68	0.97	26.36	6
Academic decline in some students due to not taking virtual education seriously	3.34	0.89	26.65	7
Lack of cooperation of parents in the education process	3.47	0.94	27.09	8
Difficulty and time-consuming preparation of special electronic content for students with special needs	3.51	0.98	27.92	9
Providing poor and inefficient content by teachers	3.31	0.95	28.70	10
Inconsistency between textbooks and Shad virtual learning space	3.65	1.07	29.31	11
Lack of suitable opportunities and facilities to solve problems in a Shad space	3.71	1.11	29.92	12
Lack of proper access to a Shad network by all students	3.62	1.09	30.11	13
Using stereotypical and traditional teaching methods by teachers	3.50	1.09	31.14	14
Lack of a suitable test maker in a Shad network space	3.35	1.06	31.64	15
Expensive internet	3.55	1.15	32.39	16
Lack of intelligent communication systems	3.36	1.09	32.44	17
Lack of emotional interaction between teacher and students	3.31	1.08	32.63	18
Lack of appropriate and efficient in-service courses for exceptional teachers in particular	365	1.2	32.88	19
Lack of adequate space to hold a class or record class content	3.65	1.3	35.62	20

Scale: very low = 1, low = 2, somewhat = 3, high = 4, very high = 5

Based on the research results, being slow internet speed and unsuccessful loading of assignments and content, Incomplete Shad network facilities and difficulty of the process of evaluating students and the possibility of cheating by them were main challenges of virtual education in exceptional schools of Guilan province from the perspective of studied teachers. While Lack of adequate space to hold a class or record class content, Lack of appropriate and efficient in-service courses for exceptional teachers in particular and Lack of emotional interaction between teacher and students had the lowest priorities, respectively.
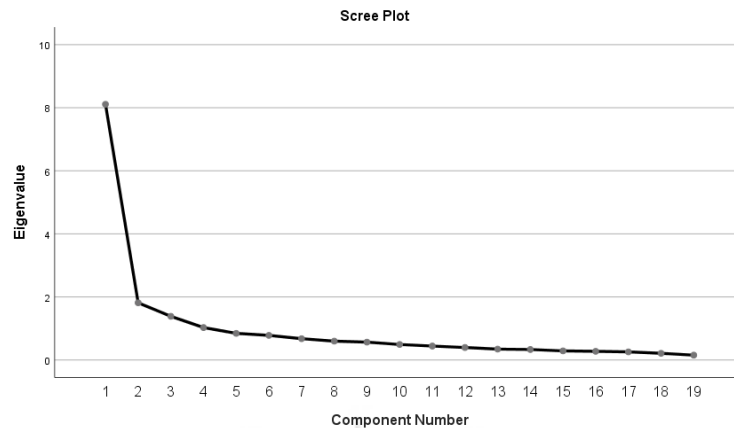
After prioritizing the challenges of virtual education in exceptional schools of Guilan province, in order to analyze and categorize these challenges, exploratory factor analysis (type R) was used. The results of examining the suitability of the data for factor analysis are summarized in Table 2.

Table 2. The amount of KMO and Bartlett test in relation to the analysis of virtual education challenges in special schools in Guilan province from the perspective of teachers in these schools (n=196

Tests		Amounts
The amount of KMO		0.90
Bartlett test	Chi-square amount	1991.60
	Degrees of freedom	171
	Significance	0.000

The value of KMO index (0.90) and the significance of Bartlett test at the level of one percent indicate that the internal correlation of the data is appropriate to form a set of variables (factors).

Scree Plot Test was used to determine the number of factors. In this method, the appropriate number of factors is determined on the basis that the specific variance has not yet overcome the common variance. Therefore, as long as the amount of common variance is greater than the amount of specific variance, the obtained factors are analyzed as significant factors [32]. The result of the Scree Plot Test is presented in Figure 1.

Figure 1. Scree Plot Test regarding the challenges of virtual education in exceptional schools of Guilan province from the perspective of teachers

According to Figure 1, a total of four factors were extracted with eigenvalue of more than one. After factor analysis, the four extracted factors along with the specific value, percentage of variance and percentage of cumulative variance were presented in Table 3.

Table 3. Challenges of virtual education in exceptional schools of Guilan province from the perspective of teachers after the rotation

Factors	eigenvalue	Percentage of variance explained	Cumulative variance percentage
The first factor	4.07	21.44	21.44
The second factor	4.05	21.33	42.77
The third factor	2.64	13.91	56.68
The fourth factor	1.57	8.25	64.93

Based on the findings presented in Table 3, the four factors extracted from the exploratory factor analysis explained a total of 64.93% of the total variance. The first factor, which explains 21.44% of the variance, is greater than the other factors. The second factor explains 21.33%, the third factor 13.91% and the fourth factor 8.25% of the variance. However, the position of the variables and the factor load related to each factor are assumed to enter variables with a factor load greater than 0.05 and after the rotation of the factors in the Varimax method in the form of Table 4.

Table 4. Factor load rate of virtual education challenges in exceptional schools of Guilan province from the perspective of teachers extracted from the rotated matrix

Factors	Items	Factor load
The first factor (Infrastructural-technical and	Lack of proper access to a Shad network by all students	0.692
	Expensive internet	0.731

economic challenges)	Incomplete Shad network facilities	0.783
	internet speed and unsuccessful loading of being slow assignments and content	0.835
	Lack of a suitable test maker in a Shad network space	0.809
	Lack of intelligent communication systems	0.508
The second factor (Content and evaluation challenges)	Providing poor and inefficient content by teachers	0.666
	Inconsistency between textbooks and Shad virtual learning space	0.723
	Difficulty and time-consuming preparation of special electronic content for students with special needs	0.541
	The difficulty of the process of evaluating students and the possibility of cheating by them	0.630
	Academic decline in some students due to not taking virtual education seriously	0.700
	Lack of cooperation of parents in the education process	0.744
	Using stereotypical and traditional teaching methods by teachers	0.770
	Lack of suitable opportunities and facilities to solve problems in a Shad space	0.527
The third factor (Socio-cultural challenges)	Lack of emotional interaction between teacher and students	0.519
	Students' dependence on cyberspace and the resulting mental and physical damage	0.604
	Lack of reinforcement of group activities due to poor interaction of students with each other	0.872
	Full-time (24-hour) engagement of teachers in cyberspace of Shad and inability to regulate working hours	0.811
The fourth factor (Organizational-managerial challenges)	Lack of appropriate and efficient in-service courses for exceptional teachers in particular	0.823
	Lack of adequate space to hold a class or record class content	0.831

In general, according to the research findings, the four main challenges in virtual education in exceptional schools in Guilan province from the perspective of the studied teachers were: infrastructure-technical and economic challenges, content and evaluation challenges, socio-cultural challenges and organizational-managerial challenges.

Discussion and Conclusion

With the outbreak of coronary heart disease, various aspects of life, including the education of students, faced serious problems. In such circumstances, and despite the educational limitations of coronary heart disease, students with special needs were placed in different educational conditions, and due to the wide range of physical and mental problems, the training of this group of students to It became the concern of their teachers. Virtual and e-learning was welcomed in the context of corona expansion because of its many benefits. In the e-learning system, it is possible to educate more people in any place and time, but this type of education also faces various challenges. Based on the results of current research, being slow internet speed and unsuccessful loading of assignments and content, Incomplete Shad network facilities and difficulty of the process of evaluating students and the possibility of cheating by them were main challenges of virtual education in exceptional schools of Guilan province from the perspective of studied teachers. While Lack of adequate space to hold a class or record class content, Lack of appropriate and efficient in-service courses for exceptional teachers in

particular and Lack of emotional interaction between teacher and students had the lowest priorities, respectively. In the classification of virtual education challenges, infrastructural-technical and economic challenges, content and evaluation challenges, cultural-social challenges and organizational-managerial challenges were identified as the main challenges. Other researchers, in addition to the opportunities and strengths of virtual education, have pointed to similar challenges that are consistent with the research findings. For example, researchers such as Al-Hujran et al (2013); Mohseni Taromsari (2009); Shams et al (2019); Pak Nasab (2020); Karimi (2020); Abbasi et al (2020); Abbasi Darehbidi and Jafari (2021); Mohammadi et al (2020); Shafiei Sarvestani and Safari Sehlabadi (2020); Salimi and Fardin (2020); Sepandar and Sadrzadeh (2021) and Haji et al. (2021) have considered various technical and Infrastructure problems such as the low speed of the Internet, the lack of network communication, and the lack of access to a Shad network for all students. Mohseni Taromsari (2009) and Mohammadi et al (2020) also emphasized the importance of technical challenges, the reasons for their occurrence and insufficient investment in the field of virtual education.

Researchers also pointed out the many challenges in the teaching-learning process and the provision of educational content in the virtual education space from different dimensions. The difficulty of content preparation [20], the difficulty of the monitoring and evaluation process [6], [24] and [29]; Teacher problems and challenges such as low media literacy and stereotyped teaching methods [7], [20], [21], [22], [23] and [24] have been emphasized by them.

Elimination of interactive and group activities [23] and [25], lack of interactive relationship with the teacher [29] and [30]; Inactivity and addiction of students to mobile phones and the Internet [6], [24] and [30] are among the main socio-cultural challenges created in the field of education Virtual and electronic.

According to the research results, two of the most important organizational-managerial challenges are related to the lack of in-service courses and the lack of suitable space for filming. Other researchers have also pointed out the existence of such challenges [28] and [30].

In general, it can be said that comprehensive studies have not been conducted on virtual education for students and children with special needs, while this group of students due to various problems in the corona is much more difficult in the field of education, and the task of exceptional teachers will be much more sensitive and complex in such circumstances. Based on the findings of the present study and with the aim of solving the challenges, suggestions are presented:

- Interacting with domestic knowledge-based companies in order to solve the problems of a Shad educational network and correct the shortcomings in this educational network, including adding practical and appropriate test-makers to the needs of students with special needs

- Strengthening the speed and bandwidth of the Internet by using effective interaction with telecommunication networks in different regions of the province during the training of students

- Designing and launching counseling systems to monitor students' problems to support and prevent their academic failure

- Providing appropriate e-learning content for education in Shad network in order to improve the coordination between the content of textbooks and Shad cyberspace

- Holding various meetings and webinars across the country to exchange experiences between teachers of exceptional schools of the teaching-learning process in the context of virtual and e-learning

- Holding briefings for parents of students and informing them more about the excessive use of the Internet, smartphones and tablets and the consequences for students

- Establishment of a charity fund with the aim of supporting the deprived students of the province's exceptional schools in order to provide the educational equipment and educational assistance needed in virtual education.

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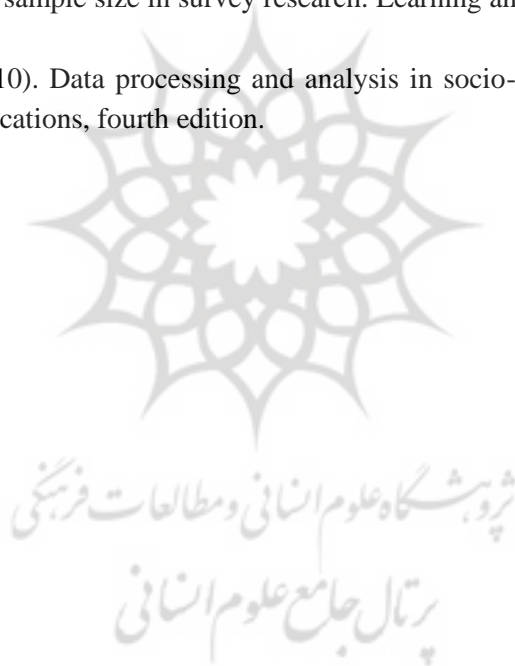
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