



Available Online at EScience Press  
**Journal of South Asian Studies**

ISSN: 2307-4000 (Online), 2308-7846 (Print)  
<https://esciencepress.net/journals/JSAS>

## Impacts of COVID-19 on Higher Level Special Students

<sup>a</sup>Tayyab Kamal, <sup>b</sup>Nadira Dayo, <sup>c</sup>Sang Yijing, <sup>d</sup>Arsalan Rasheed\*

<sup>a</sup> Department of English, Kohat University of Science and Technology, Hangu Campus, Khyber Pakhtunkhwa, Pakistan.

<sup>b</sup> Department of Education, The Begum Nusrat Bhutto Women University, Sukkur, Pakistan.

<sup>c</sup> Department of Education Administration, University Putra Malaysia, Selangor, Malaysia.

<sup>d</sup> Department of Khyber Pakhtunkhwa Elementary and Secondary Education, Pakistan.

\*Corresponding Author Email ID: [arsalanrrasheed@gmail.com](mailto:arsalanrrasheed@gmail.com)

### ABSTRACT

Many studies reported the impact of online classes on students. However, very few studies exist in the current literature about how online classes impact special students or disabled students. Disabilities is an umbrella term covering impairments, activity limitations, and participation restrictions. To fulfill this gap, this study was conducted to analyze the impact of online classes, after the lockdown of COVID-19, on special students studying at higher levels. Data was collected through a questionnaire and face-to-face interviews and analyzed using the percentage and frequency methods in MS Excel. Findings suggest that majority of students enjoyed online classes and were comfortable with this abrupt change in educational method. The majority of students were motivated because of the advantages of online classes such as flexibility and saving money on travel expenses. However, some drawbacks were also reported, including interaction, disruptions, and one-sided learning. Additionally, teachers' negligence and lack of support were also reported by special students along with the issues of online safety and security. It is suggested that education should be tailored to the needs of individual students, and teachers should make an effort to realize the unique needs and challenges of students with disabilities in order to facilitate them effectively in online learning environments. Intrinsic Motivation should be focused during online classes i.e., engaging the students in activity-based learning.

**Keywords:** COVID-19, Online classes, Motivation, special/disable students, higher education, university students.

### INTRODUCTION

A significant concern amid the COVID-19 pandemic and the ensuing lockdown is education, which is at a standstill affecting the learning of millions of students worldwide; as of March 10, 2020, the WHO has reported 113,702 globally confirmed cases and 4,012 deaths (Rasheed *et al.*, 2021). To educate its pupils, a school offers order, support, and a scheme of incentives and penalties. The advantage of face-to-face encounters with students that are usually encouraged by a teacher is conventional classroom education (Barkley & Major, 2020). It provides a safe atmosphere for social interactions for children, especially those in their early developmental years, allowing them to develop boundary setting, empathy, and cooperation skills. Unlike a simulated learning setup, it also makes plenty of space for spontaneity. They seek more autonomy and intellectual freedom as students

advance to higher school classes. Online learning, possibly even college-level courses, can help them pursue highly individualized educational activities. These can be highly beneficial for their learning progress, combined with hands-on exercises, real-world exploration, and thorough evaluations. By seeking out introductory topics from various areas, they will discover their choices before sticking to a specialty. Online education techniques will help these students become more autonomous students before they reach college (McBrien *et al.*, 2009). Students should not be holding back from taking an online course, it is claimed, but instead, give them feedback as they work through it.

Online education for working professionals and students seeking higher education has achieved enormous prominence. The versatility and accessibility that these courses provide are of great value to these groups of

online learners. It is possible to arrange online classes around their schedule, including full-time jobs, internships, and family care. Online schooling will also encourage them to take some quiet time to learn. Distance learning has been available for a long time, even before technologies made it highly functional. Traditional schooling is now seeing an increased proliferation of virtual training materials and online courses (Mayadas *et al.*, 2009). Even in a world of tried and tested schooling systems and curricula, the most successful schools are the ones who adapt to the changing times, as well as to the expectations of students, parents and society. Instead of focusing on pros and cons, efforts are needed for online education to make the education systems more conducive to learning.

Education, which is now influencing the schooling of millions of students worldwide, is a significant problem in the COVID-19 pandemic and the resulting lockout. Social isolation has arisen as a vital mitigation factor in the lack of any medical treatment or vaccine (Hasan & Khan, 2020). In order to deter the transmission of this lethal epidemic, public areas across nations have been shut down, and institutionalized schooling is the most extraordinary victim of all. Schools and higher education institutions around the globe have been locked, impacting the schooling of over 90 percent of the world's student population. According to UNESCO figures, the closing of COVID-19 influenced the research of 1540 million students across 191 nations. The closing of COVID-19 affiliated education institutions in India affected the learning of more than 320 million students (UNESCO, 2020). The schooling of students of all ages and levels must be safeguarded by understanding the role that education plays in the all-around and equitable growth of individuals and nations (Crawford *et al.*, 2020). Thus, as a responsible government throughout countries like India, the use of online tools to promote the learning of students was stressed and promoted. Education is becoming a new standard for India by online teaching, but it is a unique idea for most students and teachers. A sample survey conducted by the National Statistical Office (NSO) on "Household Consumption of Education in India" found that the supply of computers and internet facilities in India was minimal. Just 23.8% of India's population has access to Internet services. As per NSO Sample survey, in terms of owning machines and accessing the internet, there is a significant divide between rural and urban populations. Only 4.4% of rural households had

machines, while 14.4% had Internet services (NSO, 2019). 23.4% of households own laptops in urban areas, while 42% have Internet connections. This poor internet connection and lack of broader reach render many Indian students inaccessible, unproductive, and unworthy of learning by online teaching.

The COVID-19 pandemic has significantly unequal impacts on parts of society. People with disabilities are susceptible to it, so recognizing both the perspective of disability and the position of social media is crucial. This data will help to decrease the risk of the disease. For special individuals who are partly or entirely handicapped with disabilities such as blindness, deafness, special education is critical. Education at the personal level, group level, or in a classroom may be essential. The concerned personals are working to make the schooling meaningful for the future of students by creativity, passion, and careful planning as the overlap between conventional and online forms of education becomes more and more unavoidable. Special education approaches are, of course, meant to address the demands of different groups of special people. This study work concerned the techniques by which special students can be inspired, especially in developed countries, through online classes worldwide. There are many issues facing special students, such as the absence of a homogeneous school system in which special people may have the same academic experience as regular students.

Many barriers keep disabled students from accessing and completing higher education, only 15% of disabled people attain higher education. Once enrolled in a higher education institution, more disabled people reach higher education and it is also more difficult for such a student to graduate; because only 24% of the population aged between 30 and 34 and having a disability have graduated. Young persons with disabilities also usually leave education earlier those persons with no disabilities. The barriers keeping disabled students from accessing and completing higher education are diverse. They include inaccessible buildings, a solution would be the use of universal design for new buildings, and adapting new ones by keeping in mind the various types of disabilities, inaccessible teaching when the way of teaching is not adapted to all the students or to all the persons who might be students or when a wide variety of needs is not taken into account, Lack of training of academic staff i.e. other higher education staff members and lack of understanding of disabilities, Stigma from

other students and staff members and Lack of accessible student activities. "Not every child on a virtual platform is comfortable," says Naomi Brickel, Neighborhood Service Network Operator, and Policy Coordinator at the Westchester Institute for Human Development in Valhalla, New York. Before holding a conference, teams should take steps to take." Additional steps should be taken to ensure that the student is comfortable online communicating and learning."

Supporting special students in the following ways to feel relaxed and meaningfully active would have an effect on the encouragement of online classes during COVID-19, according to Nissman (2020), especially at higher levels. For student and parent input, send documentation home. Before the simulated conference, make sure the student and his parents have a few days to review the appraisal results of the student and any draft papers. Before a meeting, look for details. Get the student's case manager or another team member the student is familiar with a few days before the simulated IEP meeting contacting the student and her parents to discuss what the student feels worked and did not work in the past year. Ask the student the classes in which she felt most successful and why. Ask her which interventions have helped and have not helped. Ensure that all members use their cameras. If they both turn on their cameras, the student and his parents are more likely to believe the school-based team members are paying attention to them and not performing any work or activities at the simulated IEP conference. Ask for student input directly. If the student wants to be on tape but is prepared to talk, make sure that you pause regularly to ask for input from the student so he continues to participate. You do not want him to focus solely on the participation feature for chat or Q&A (Nissman, 2020).

### **RATIONAL OF THE STUDY**

Many studies reported the association of online classes with students (McBrien et al., 2009; Mayadas *et al.*, 2009), but a research gap exists in the current literature about how online classes impact students' lives in higher education with special needs. During the COVID-19 disease outbreak, a phenomenological study was conducted on special students from higher education to study their educational condition during online education in the lockdown of COVID-19 and to analyze the impact of online classes on their motivation.

### **STATEMENT OF THE PROBLEM**

Many factors influence students' satisfaction with online teaching. This includes interaction between students and teachers, interaction with fellow peers, content, delivery method, technical support, and support services. Different studies reported the impact of online classes on students. However, very few study exists in the current literature about how online classes impact the special students or disable students. During the COVID-19 lockdown, an opportunity of online classes was provided to the special students. Hence, the current study was designed to analyze the impact of online classes on special students to fulfill the existing research gap.

### **RESEARCH OBJECTIVES**

- To describe the educational condition of special students after the lockdown of COVID-19.
- To analyze the impact of online classes on the motivation of special students at higher levels during COVID-19.

### **RESEARCH QUESTIONS**

What is the effect of online courses on higher-level encouragement for special students during COVID-19?

### **SIGNIFICANCE OF THE STUDY**

The significance of the current study is that no research work has been performed on this topic since the outbreak of COVID-19. The concept of traditional education has changed radically within the last couple of years. Being physically present in a classroom is not the only learning option anymore, not with the rise of the internet and new technologies. The COVID-19 pandemic is an extraordinary and precarious moment for parents, educators, teachers, associated care agencies, and special education institutes because it is difficult for them to arrange supplementary aids for online classes during the COVID-19 lockdown because school, supports, activities and routines are disrupted.

#### **Flexibility for special students and teachers**

Online education enables the teacher and the specials student to set their own learning pace, and there is the added flexibility of setting a schedule that fits everyone's agenda. As a result, using an online educational platform allows for a better balance of work and studies. Furthermore, having a shared agenda between the student and teacher can also prompt both parties to accept new responsibilities and have more autonomy.

**Opportunity for special students to study in higher level**

Online education offers a wide selection of programs. A growing number of universities and higher education schools are offering online versions of their programs for various groups and disciplines. Awareness of online classes will help the special students get an official certificate, diploma, or degree without physically setting foot on a university campus in the future.

**Online classes allow the special students for a customized learning experience**

Online classes are suitable for each student’s individual requirements and ability level because they tend to be smaller than conventional class sizes. Most of the time, online learning platforms only allow one student at a time, and in almost all cases, this allows for greater interaction and more feedback between special students and teachers who highly motivate them.

**More cost-effective for parents**

Unlike in-person education methods, online education tends to be more affordable. Online classes will make them able to save money and time on travel. Special students might also study through online classes while assisting their families with home duties. This allows for better budget management for the parents of special students.

**THEORETICAL FRAMEWORK**

Online teaching and learning method experiences by

students with disabilities in this unprecedented time plays a key role in designing online learning experiences joyful and worthy for students. Considering the fact that special students’ satisfaction with learning experiences can influence their learning, this study is undertaken to assess the impact of online learning experiences of special students amid this harsh reality of COVID-19. The present study is intended to uncover the special students’ perspectives of learning through online mode necessitated due to COVID-19 induced closure by using the theoretical model of Intrinsic and Extrinsic Motivation and Value construct (Eccles, 2009).

Similar to Eccles et al. (2009), intrinsic value construct, intrinsic motivation is represented in a number of theoretical models as a key reason for valuing an activity (Wigfield, 1994). Simply put, intrinsic motivation is defined as the enjoyment of an activity for an activity’s sake (Sansone & Harackiewicz, 2000). It reflects engaging in the activity as an end in itself for the inherent pleasure and enjoyment of the activity. Intrinsic motivation is routinely proposed as the optimal reason for an individual to engage in a task. Being extrinsically motivated involves engaging in an activity because of external reward and punishment contingencies, and creates compliance to an outside authority. It is considered the least self-determined form of motivation (i.e., the individual need not have any investment in the behavior beyond achieving reward or avoiding punishment) (Hulleman *et al.*, 2015).

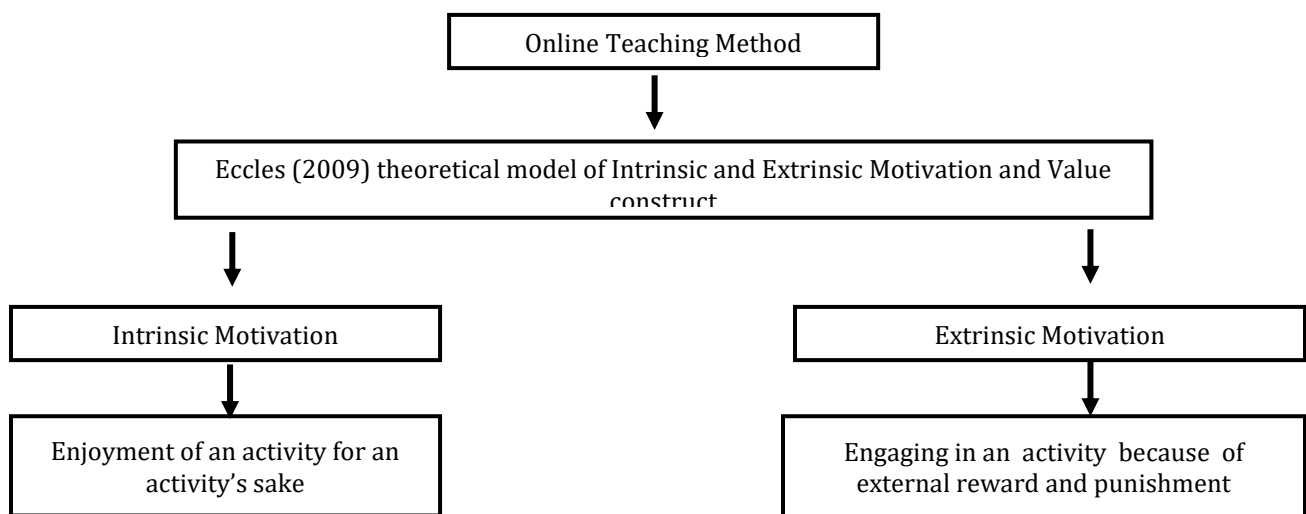


Figure 1. Theoretical model of Intrinsic and Extrinsic Motivation and Value construct.

Source: The figure has been drawn by the authors.

**METHODOLOGY**

**Study Design**

This is an explanatory and phenomenological study examining the online learning experiences of special students at higher levels during the COVID-19 crisis.

**Sample Size**

Special students from higher levels were searched, and a sample of 19 students from Kohat University of Science

and Technology, Pakistan, were selected using convenience sampling technique. A convenience sample is a non-probability sampling method where the sample is taken from a group of people easy to contact or reach. The demographic details of the participants are given in table 1.

Table 1. Demographic details of the special students.

Total	Male	Female	Age	Rural	Urban	Disability
19	12	7	18-30	4	15	Physical

Source: The table was created by the data.

**Data Collection**

Data were collected from November to December 2020 when all educational institutions of Pakistan switched to online teaching mode due to the COVID-19 pandemic. A questionnaire was prepared in Google Form and sent through email and WhatsApp to students or their family members with request letters for their responses. The experiences of students were collected on online learning during COVID-19 outbreak that consists of two sections. First section comprised of demographic details of participants and second section dealt with statements and questions related to their experiences of online learning initiated by their respective institutions and teachers. Both open-ended and closed questions were included along with checkboxes. The questionnaire was designed considering the ease of responding to the question and inclusion of important points related to online learning such as enjoyment and comfort of online learning, digital platforms and devices used, most liked and disliked elements of online learning, content delivery modes used by teachers and those preferred by students, accessibility of internet, advantages and disadvantages as perceived by students. It was prepared to be appropriate for respondents and relevant to the local context.

**RESULTS**

Data were collected from 19 participants to examine special students' experiences with online learning during the COVID-19 pandemic and to find answers to the research questions. The results of the current study are given in table 2 in the order of the questionnaire's 13 questions or statements. In connection to the comfort of learning through online mode, it was found that about

64% of students were comfortable in learning through online classes. Regarding enjoyment and comfort, students indicated positive experiences. These students stated that they enjoyed online learning initiated by their teachers and institutions. It is encouraging to know that students enjoy online learning during this tough time. It means that this innovative way of learning is highly enjoyable for students. This enjoyment may prove to be leading to positive and meaningful learning for students. Students use different devices for online learning such as mobile, computers, laptop and tablets. Therefore, students were asked to respond to all devices they were using. Results show that 14 out of 19 students used mobile phones for online learning while none of them used computers. Laptops and tablets were also rarely used by students. In most cases, institutions might be offering online teaching on different and multiple platforms. Considering this point, students were allowed to choose all platforms they were using. Each frequency and percentage of table 2 was calculated out of a total number of responding students. The majority of students (84%) used Zoom video conferencing applications for online learning. All of them were aware of the use of devices and platforms.

The analysis showed that the majority of the students did not have good internet connectivity. This could cause content materials' inaccessibility, poor comprehensibility, distraction, and lack of interaction. While analyzing the most liked features of online learning platforms, it was revealed that 94% of students found online learning interactive with peers and teachers during the COVID-19 pandemic. Similarly, the majority of the students found online classes highly flexible in terms of time and place.

Table 2. Analysis of the experiences of special students concerning online learning during COVID-19 pandemic

S. No.	Statements	Yes		No		Total	
		Frequency	Percentage	Frequency	Percentage		
1	Comfort with Online learning during COVID-19 pandemic	12	63.15	7	36.84	19	
2	Enjoyment with online learning during corona virus crisis	12	63.15	7	36.84	19	
3	Devices used for online learning	Mobile	14	73.68	5	26.31	19
		Computer	0	0	19	100	19
		Laptop	3	15.78	16	84.21	19
		Tablet	2	10.52	17	89.47	19
4	Digital platforms used for online learning	Zoom	16	84.21	3	15.78	19
		Google Classroom	0	0	19	100	19
		Google Hangouts	0	0	19	100	19
		WhatsApp	3	15.78	16	84.21	19
		Facebook	0	0	19	100	19
		You Tube	0	0	19	100	19
5	Knowledge about the use of Devices and Digital platforms	19	100	0	0	19	
6	Accessibility of Good Internet Connectivity	4	21.05	15	78.94	19	
7	Most liked features of online platforms	Flexibility	17	89.47	2	10.52	19
		Accessibility of content materials	16	84.21	3	15.78	19
		Interaction with teachers and peers	18	94.73	1	5.26	19
		Comfort	12	63.15	7	36.84	19
		Self-paced	14	73.68	5	26.31	19
8	Most disliked elements of online platforms	Poor network and connectivity	4	21.05	15	78.94	19
		Distractions	7	36.84	12	63.15	19
		Lack of interaction	1	5.263	18	94.73	19
		Poor comprehensibility of content	0	0	19	100	19
		Lack of support	2	10.52	17	89.47	19
9	Content delivery modes used by teachers	Teacher-made Text Materials	4	21.05	15	78.94	19
		Video conferencing	0	0	19	100	19
		Textbook or Reference book materials	13	68.42	6	31.57	19
		Teacher-made video	0	0	19	100	19
		Video from online source	0	0	19	100	19
		Teacher made audio file	19	100	0	0	19
10	Students' preferred content	Audio from internet	0	0	19	100	19
		Teacher-made Text Materials	19	100	0	0	19

delivery modes							
		Video conferencing	3	15.78	16	84.21	19
		Textbook or Reference book materials	19	100	0	0	19
		Teacher-made video	19	100	0	0	19
		Video from online source	6	31.57	13	68.42	19
		Teacher made audio file	0	0	19	100	19
		Audio from internet	0	0	19	100	19
11	Students' perceived advantages of online learning	I can learn anytime according to my convenience	18	94.73	1	5.26	19
		I can learn from anywhere	12	63.15	7	36.84	19
		I can access materials provided by instructors	15	78.94	4	21.05	19
		It is highly flexible for me	17	89.47	2	10.52	19
		I feel more autonomous while learning online	18	94.73	1	5.263	19
		Teachers are more friendly online than face-to-face teaching	11	57.89	8	42.10	19
		Proper guidance for online safety and security is given	2	10.52	17	89.47	19
		Others: Save travelling expenses	16	84.21	3	15.78	19
12	Students' perceived disadvantages of online learning	Poor connectivity	4	21.05	15	78.94	19
		Lack of time	0	0	19	100	19
		Lack of support	0	0	19	100	19
		No opportunity for interaction	4	21.05	15	78.94	19
		No clarification of doubts and queries	0	0	19	100	19
		No supportive materials are provided	7	36.84	12	63.15	19
		No guidance is given for online platform	0	0	19	100	19
		Lack of comprehensibility of the concept	2	10.52	17	89.47	19
		Learning is teacher directed only	16	84.21	3	15.78	19
		Learning is one-sided	16	84.21	3	15.78	19
	Others: Stressful and Technical problem	11	57.89	8	42.10	19	
13	Will you prefer to use online learning after outbreak also?		16	84.21	3	15.78	19

Source: The table has been created by the data.

Its flexibility makes online learning highly demanding. Students were asked to give open responses regarding elements they disliked about online learning platforms they were using. Its analyses revealed that some students (n=4) faced connectivity and network-related issues while learning online. The mentioned responses highlighted the difficulty of getting a good internet connection and speed for online classes, especially in rural areas. Following it, 16.17% of students found online learning very distracting because of elements such as noise, poor management, advertisements, etc.

In terms of the content delivery formats used by teachers or instructors for online teaching, it was discovered that most students were given teacher-made text materials (68%) and teacher voice/audio (100%), such as a live PowerPoint presentation in teacher's voice. Audio from the internet or other sources is the least popular mode. Texts and audios created by teachers are usually adapted to the requirements and characteristics of pupils. Teachers may have chosen specific means of material distribution for this purpose. Students were asked to choose from a list of options to determine their preferred modes of content delivery. The most favored way of transmission was discovered through analysis to be teacher-made text materials and videos and textbooks or reference resources. Audio files were found to be the least privileged mode.

Table 2 displays the study results on students' perceptions of the benefits of online learning. The majority of students (18%) discovered the advantage of being able to learn from any place. They didn't have to leave their houses to attend lessons. This explains why 63% of students said they felt at ease learning online. Almost all of them mentioned being able to save money on travel and time. They might also study while assisting their family with home duties, according to the report. However, cyber security and safety risks are frequently associated with online learning. Getting participants aware of cyber safety and security is a must before converting to an online learning style, but only two out of 19 students received sufficient counseling for online safety and security. It is fair to say that this abrupt transition has jeopardized consumers' online security and safety. Students may receive internet safety and security training from their teachers.

Following the positives, students' perceptions of the negatives of online learning were examined. It was shown that most pupils (84%) did not have the chance to engage.

As a result, those students saw online classes as one-sided because most of the discussion was conducted only by professors. Due to a shortage of time, students could not participate in online learning, and their worries and questions went unanswered. In this time of crisis, it is proposed that pupils be distressed by having less work, a feeling of community, adequate counseling, and regular engagement. The children said it was difficult to adjust to online learning since they were overlooked by teachers among their peers who were not impaired. It became challenging for visually impaired pupils to extract meaningful information from every textual discourse conducted by their professors and peers.

"Will you choose to use online learning after the epidemic as well?" elicits a favorable response from 84 percent of pupils. They said that in the case of blended learning and flipped learning, online learning may be utilized as a supplement to offline/face-to-face learning. Working in groups promotes student pleasure, boosts student involvement, and cultivates social relationships. The collaborative online classroom may be utilized to enhance interaction among peers. The issues and disadvantages that students with negative responses experienced while attending online classes, such as feeling ignored by professors within a group of non-disabled classmates, might be the basis for their negative reactions. The sole use of an online style of teaching and learning is viewed as distracting and missing in support and engagement with teachers and classmates, making it less successful and onerous. Teaching and learning are regarded as social activities. In a totally online learning environment, that aspect is still lacking, resulting in poor understanding and a lack of assistance and engagement.

## DISCUSSION

Specialized programs, modifications, or both are required for students with disabilities to fully access course contents recommended by institutes and achieve significant progress that is commensurate with their abilities. Parents and teachers must work together to determine and construct suitable programs for students with disability at a time when universities are trying to offer conventional education in a fresh and terrifying new setting. Disability is a relative term that varies depending on the period, location, and social environment (Shah et al., 2004). According to the Convention on the Rights of Persons with Disabilities (2008), 'people with disabilities include those who have enduring physical, cognitive,



psychological or sensory impairments which in collaboration with a variety of obstacles may impede their complete and efficient contribution in the society on equivalent basis with other members of their society' (UNESCO; Matonya, 2016).

Disabled individuals are frequently excluded from numerous social, educational, economical, and cultural possibilities, and they are among the world's poorest and most disadvantaged individuals (Groce, 2004). Despite the fact that education is extremely important for everyone, regardless of age, gender, ethnicity, socioeconomic status, or ability or handicap, handicapped people are often seen as impoverished groups in this field (Block, 1992). As a result, they are missing out on a variety of social, economical, and political benefits, as well as the right to a decent and quality education (Goodley & Tregaskis, 2006). In addition, students with disabilities suffer a lack of infrastructure, a severe shortage of professionals in general and comprehensive educational establishments in particular, and a lack of and/or non-existence of effective identification and solutions for issues experienced by the majority of persons with disabilities, mostly in Sub-Saharan African countries (Matonya, 2016). Despite all efforts to verify the right to education for all individuals, including those with impairments, the World Health Organization (WHO, 2011) shows that the majority of handicapped persons lack access to education.

According to the present study, special students enjoyed and felt at ease in online lessons created by their professors and institutions. It's good to hear that students are finding online learning to be beneficial during this difficult time. This might lead to pupils learning in a pleasant and meaningful way. Hasan and Khan (2020) came to similar conclusions. According to Khan et al. (2020), several impaired students reported facing difficulties during the transition from home to university life. These include missing old friends and creating new ones, making financial goals, feeling nostalgic, dealing with complex situations, and coping with a wide range of individuals and their behaviours. Because their parents had previously supported them in these things, the respondents had difficulty organizing their lives and money (Khan et al., 2020).

Lack of contact may create isolation and loneliness among students utilizing online learning platforms, according to research (Bullen, 1998; Hara & Kling, 2000; Zembylas et

al., 2008). As a result, collaborative learning methods may be employed to encourage peer engagement, working in groups can boost student pleasure, involvement, and social relationships (Tinto, 1997). According to the findings of Roberts et al. (2005), the present study showed that majority of pupils did not have the chance to engage. They said it was hard to adjust to online learning since they were overlooked by teachers among their peers who were not impaired. Engagement between students and professors, as well as interaction with peers, are all factors that influence students' happiness with online learning.

It is important to involve more actively, such as by attempting to invest in increased awareness and proper training on the various disabilities that students may face. According to some authors, in order to achieve true inclusion of students with disabilities in higher education, fair and socially just pedagogies must be developed in order to combat vision and academic elitist perceptions based on a sense of normalcy (Madriaga et al., 2011). Because interaction is the major component that determines the quality of online learning, online platforms should be constructed in a way that allows for possibilities for interaction between teachers and students as well as between students and students (Phipps, 2015). According to NSO (2019), only 4.4 percent of rural households and 23.4 percent of urban households own computers, which is similar to the findings of the current study, which show that none of the students used computers for their online classes. The reason for this could be a lack of electricity, internet connectivity, or camcorder issues, all of which are required for online classes.

Some students in the current study stated that it was difficult for visually impaired students to choose necessary information from all textual conversations conducted by their peers and teachers. Educators may comply with a social model of disability and promote this transformation by concentrating on ways to change and improve the learning environment and instructional delivery techniques, rather than changing or "healing" children with impairments. According to Hehir (2002), considering all of our kids' access requirements as we build curriculum and pedagogy would benefit all of our students—disabled and non-disabled equally. Educators can also assist parents and guardians in arguing for their rights to accessible language and information that has been translated into the parent or guardian's chosen

language and mode of communication, as mentioned above.

### CONCLUSION

Amidst COVID-19 pandemic, internet has become mitigating tool to rescue education from severe effects of worldwide lockdown and closure. By closing the gates of many educational institutions around the globe, coronavirus pandemic has provided an opportunity to practice digital form of teaching and learning. Online teaching is needed in this situation but suddenly unplanned imposed started in hurry to safeguard academic life of millions of students affected by this worldwide pandemic. During the COVID-19 disease outbreak, a phenomenological study was conducted on special students studying in higher education to study the educational condition after the lockdown of COVID-19 and to analyze the impact of online classes on motivation. Special students from higher levels were searched, and a sample of 19 students from Kohat University of Science and Technology, Pakistan, were selected. The information was gathered through a self-designed questionnaire and face-to-face interview. The theoretical framework of Intrinsic and Extrinsic Motivation and Value construct by Eccles (2009) was kept in mind during questionnaire designing. The collected data were analyzed using the percentage and frequency method in Microsoft Excel. After analyzing the data, the researcher interpreted the result and gave recommendations on the basis of findings. The analyses of this study showed that students enjoyed learning through online mode, if proper facilities were accessible to them. Theoretical model of Intrinsic motivation can be applicable to online classes because it contains many attractive activities which helps the students enjoy an activity for an activity's sake. But the Extrinsic Motivation cannot be fit with the online classes because here it is difficult to engage the special students in an activity because of external reward and punishment. It is believed that the study will be an important contribution to discuss possible recommendations with structures of academic management in higher education, in order to improve success academic among special students and a real academic inclusion.

### RECOMMENDATIONS

If an institution, for students with disabilities, is closed solely because they are at high risk of severe illness and death, the local educational agencies must determine

whether each special person could benefit from online or virtual instruction, instructional telephone calls, and other curriculum based instructional activities, to the extent available. In so doing, school personnel should follow appropriate health guidelines to assess and address the risk of transmission in the provision of such services. The study suggest that education should be suitable for individual students' needs and teachers must try to understand the specific needs and problems of students with disabilities in order to include them in online learning environment. The study further suggested to create student-centered online learning environment that is conducive and supportive for all learners in order to facilitate their learning and to provide opportunities for interaction through use of different media and activities. It should be flexible for accommodating students with less technological support to grow according to their own pace and convenience for example, to resolve the internet issue, institutions should provide the necessary materials in USB on a weekly or monthly basis. Study sample should be increased in future research.

**CONFLICT OF INTEREST:** The authors have declared no conflict of interests.

**AUTHOR'S CONTRIBUTION:** Arsalan Rasheed designed the work, collected the data and performed analyses. Tayyab Kamal drafted and wrote the manuscript. Nadira Dayo proofread and revised the manuscript for necessary changes. All the authors approved the final version to be published.

### REFERENCES

- Atack L, Rankin J. (2002, Aug). Nurses' experiences with Web-based learning. *Can Nurse* 98(7), 18-22. PMID: 12238222. <https://doi.org/10.1046/j.1365-2648.2002.02394.x>
- Barkley EF, Major CH. (2020 May 5). *Student engagement techniques: A handbook for college faculty*. New York: John Wiley & Sons. [shorturl.at/xzAC6](http://shorturl.at/xzAC6)
- Block ME. (1992). What is appropriate physical education for students with profound disabilities? *Adapted Physical Activity Quarterly*, 9(3), 197-213. <https://doi.org/10.1177%2F1049732305285840>
- Bullen M. (1998). Participation and Critical Thinking in Online University Distance Education. *The Journal of Distance Education / Revue de l'education Distance*, 13(2), 1-32. Athabasca University

- Press. Retrieved December 5, 2021 from <https://www.learntechlib.org/p/89634/>.
- Cheurprakobkit S, Hale DF, Olson JN. (2002, Dec 1). Technicians' perceptions about Web-based courses: The University of Texas system experience. *The American Journal of Distance Education*, 16(4), 245-57. [https://doi.org/10.1207/S15389286AJDE1604\\_4](https://doi.org/10.1207/S15389286AJDE1604_4)
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20. <https://doi.org/10.37074/jalt.2020.3.1.7>
- Eccles, J. (2009). Who am I and what am I going to do with my life? Personal and collective identities as motivators of action. *Educational psychologist*, 44(2), 78-89. <https://doi.org/10.1080/00461520902832368>
- Goodley, D., & Tregaskis, C. (2006). Storying disability and impairment: Retrospective accounts of disabled family life. *Qualitative health research*, 16(5), 630-646. <https://doi.org/10.1177/1049732305285840>
- Groce, N.E. (2004) Adolescents and youth with disability: issues and challenges. *Asia Pacific Disability Rehabilitation Journal*, 15 (2), 13-32. Available at: <https://discovery.ucl.ac.uk/id/eprint/15132/>
- Hara, N. (2000). Student distress in a web-based distance education course. *Information, Communication & Society*, 3(4), 557-579. <https://hdl.handle.net/2022/1092>
- Hasan, N., & Khan, N. H. (2020). Online teaching-learning during covid-19 pandemic: students' perspective. *The Online Journal of Distance Education and e-Learning*, 8(4), 202-213. <https://tojdel.net/journals/tojdel/articles/v08i04/v08i04-03.pdf>
- Hehir, T. (2002). Eliminating ableism in education. *Harvard educational review*, 72(1), 1-33. [https://doi.org/10.17763/haer.72.1.0386652870\\_2g2105](https://doi.org/10.17763/haer.72.1.0386652870_2g2105)
- Hulleman CS, Barron KE, Kosovich JJ, Lazowski RA. Student motivation: Current theories, constructs, and interventions within an expectancy-value framework. In *Psychosocial skills and school systems in the 21st century 2016* (pp. 241-278). Springer, Cham. [http://dx.doi.org/10.1007/978-3-319-28606-8\\_10](http://dx.doi.org/10.1007/978-3-319-28606-8_10)
- Khan, T. A., Hamid, W., Jahangir, M. S., & Maqbool, T. (2020). Disabled Students Seeking Higher Education in Kashmir: A Study of their Experiences. *Higher Education for the Future*, 7(2), 132-146. <https://doi.org/10.1177/2347631120932241>
- Madriaga, M., Hanson, K., Kay, H., & Walker, A. (2011). Marking-out normalcy and disability in higher education. *British Journal of Sociology of Education*, 32(6), 901-920. <https://doi.org/10.1080/01425692.2011.596380>
- Matonya, M. (2016). Accessibility and participation in Tanzanian higher education from the perspectives of women with disabilities. *Jyvässkylä studies in education, psychology and social research*. (568). [https://jyx.jyu.fi/bitstream/handle/123456789/51931/978-951-39-6844-1\\_vaitos03122016.pdf?sequence=2](https://jyx.jyu.fi/bitstream/handle/123456789/51931/978-951-39-6844-1_vaitos03122016.pdf?sequence=2)
- Mayadas, A. F., Bourne, J., & Bacsich, P. (2009). Online education today. *Science*, 323(5910), 85-89. <https://doi.org/10.1126/science.1168874>
- McBrien, J. L., Cheng, R., & Jones, P. (2009). Virtual Spaces: Employing a Synchronous Online Classroom to Facilitate Student Engagement in Online Learning. *The International Review of Research in Open and Distributed Learning*, 10(3), 1-17. <https://doi.org/10.19173/irrodl.v10i3.605>
- Motteram, G., & Forrester, G. (2005). Becoming an online distance learner: what can be learned from students' experiences of induction to distance programmes?. *Distance education*, 26(3), 281-298. <https://doi.org/10.1080/01587910500291330>
- [Nissman, C. \(2020\). 4 steps to creating contingency plans to implement IEPs. District Administration. https://districtadministration.com/4-steps-to-creating-contingency-plans-to-implement-ieps/](https://doi.org/10.1080/01587910500291330)
- National Statistical Office (NSO) (2019). Sample survey on Household consumption on Education in India. Available at: <http://mospi.nic.in/announcements/summary-analysis-nss-report-no585-household-social-consumption-education-india-nss> (May 10, 2020)
- Phipps, R. A. (2000). Measuring quality in internet-based higher education. *International Higher Education*, (20), 2-3. <https://doi.org/10.6017/ihe.2000.20.6882>
- Rasheed A., Usman T., Niaz S., Khattak I., Gul S., Ali N.,

- Khan N.U., Ali H., & Sarwar M.S. (2021, August 1). A Review on Severe Acute Respiratory Syndrome 2 (SARS COV-2). *Pakistan Journal of Zoology*, 9, 370-534.  
<https://dx.doi.org/10.17582/journal.pjz/20210107160135>
- Roberts, T. Grandy, Irani, Tracy A., Telg, Ricky W., & Lundy, Lisa K. (2005, March 1). The development of an instrument to evaluate distance education courses using student attitudes. *The American Journal of Distance Education*, 19(1), 51-64.  
[https://doi.org/10.1207/s15389286ajde1901\\_5](https://doi.org/10.1207/s15389286ajde1901_5)
- Sansone, C., & Harackiewicz, J. M. (Eds.). (2000). *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. Academic Press.  
<https://psycnet.apa.org/record/2000-05867-000>
- Shah, S., Travers, C., & Arnold, J. (2004, Nov). Disabled and successful: education in the life stories of disabled high achievers. *Journal of Research in Special Educational Needs*, 4(3), 122-32.  
<https://doi.org/10.1111/j.1471-3802.2004.00027.x>
- Tinto, V. (1997). Enhancing learning via community. *Thought & Action*, 13(1), 53-8.  
<https://eric.ed.gov/?id=EJ547598>
- UNESCO. UNESCO's support: *Educational response to COVID-19*. Available at:  
<https://en.unesco.org/covid19/educationresponse/support>
- WHO. (2011). World report on disability.  
<https://www.who.int/disabilities/world-report/2011/report.pdf>
- Wigfield A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review* 6, 49-78.  
<https://doi.org/10.1007/BF02209024>
- Trauma, Zembylas M. (2008, Mar 1). Justice and the politics of emotion: The violence of sentimentality in education. *Discourse: Studies in the cultural politics of education*, 29(1), 1-7.  
<https://doi.org/10.1080/09523980802107237>

**Publisher's note:** EScience Press remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made. The images or other third-party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2021.