

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

Annweshaa Chatterjee^{1*}, Debolina Debnath², Shruti Chakraborty³, Sreejita Sarkar⁴, Sritanuka Ganguly⁵, Ms. Shankhabela Mukherjee⁶

ABSTRACT

On 23rd March, 2020 the Indian government imposed a nationwide lockdown in response to the SARS-CoV-2 virus. With this nationwide lockdown, the entire education system shifted online. There have been many changes in the education of children throughout the country and schoolchildren have been affected by this sudden shift in the mode of education. Special education is a specially designed education system for children who are different – socially, mentally, or physically, as compared to the average population. The children availing special education have also been affected by this change to the ‘new normal’ for over 2 years. Several studies have been conducted so far to explore the problems and challenges faced by these children. However, the present study aims to understand this issue from a different lens; that of special educators. This study thus aims to understand the benefits and challenges of special education during the pandemic and the strategies the educators came up with during this tumultuous time. The First Chapter of the study is devoted to understanding and explaining the concepts of special education and the Covid-19 pandemic. The scope of the present study has also been discussed. The Second Chapter is dedicated to the review of all relevant literature where studies from all over the world on special education during the pandemic have been explored. The Third Chapter states the methodology of the study. This chapter explains the objectives, the sample, the inclusion and exclusion criteria, the sampling technique, the tools, and the procedure for data collection along with the method of data analysis. The Fourth Chapter presents the results of the study in the form of graphs. The Fifth Chapter is made up of the discussion. This chapter includes the applicability of the study along with the limitations and also suggestions for future studies and research.

Keywords: *Special Education, Covid-19 Pandemic, Special Educators*

¹Student, Department of Psychology, Loreto College

²Student, Department of Psychology, Loreto College

³Student, Department of Psychology, Loreto College

⁴Student, Department of Psychology, Loreto College

⁵Student, Department of Psychology, Loreto College

⁶Supervisor, Department of Psychology, Loreto College

*Corresponding Author

Received: March 21, 2024; Revision Received: June 22, 2024; Accepted: June 26, 2024

What is Special Education?

The education system known as special education is designed to cater to the needs of children who differ from the average population in social, mental, or physical aspects. These students require teaching practices that are different from the norm, and the support services offered are varied, depending on the individual's specific needs. There is no one-size-fits-all approach to special education, as it is tailored to cater to the unique requirements of students with disabilities.

Special education programs aim to assist children who are experiencing delays in their development, including physical, cognitive, and academic skills, which put them behind their peers (Scaini et al., 2018). Special needs can include learning disabilities like dyslexia, dysgraphia, or dyscalculia, speech and language impairments like specific reading comprehension deficit, and autism spectrum disorders, cognitive impairments like intellectual disability, emotional and behavioral disorders such as conduct disorder or attention deficit hyperactivity disorder (ADHD), physical disabilities like cerebral palsy, muscular dystrophies, sensory impairments like vision or hearing, chronic medical illnesses, and any condition that affects optimal education. It is important to note that along with children with learning disabilities, gifted children with advanced academic abilities may also need to be imparted special education. Whenever possible, the needs of these students should be met in the same environment where other peers learn (Ojeda, 2022). Support services may involve physical assistance and therapy, counseling and psychotherapy, modified learning environments and assistive learning devices, educational and psychological assessments, and behavioral modification techniques.

A crucial aspect of special education for teaching children with learning disabilities is the creation of an individualized education program and specialized attention given to smaller groups. There can be two goals that education, especially special education, can have. Put in operational terms, these goals are to (a) raise the mean level of performance, (b) reduce the standard deviation of performance, or both (Detterman and Thompson, 1997).

The Modern Approach to Special Education

In contemporary special education, the objective goes beyond these goals. Modern-day special education aims to do more than that. They strive for the holistic development of the child. Modern-day special education also places emphasis on developing diverse methods and plans of action that are tailored to meet the unique needs of each child.

Today, special education is referred to by several names, such as special needs education, aided education, exceptional education, and exceptional student education. Regardless of the name, the modern approach to special education is focused on modifying traditional education methods and strategies in such a way that it is able to fulfill the individual requirements of children with various special needs. They are designed to cater to the physical, emotional, and social needs of the children in order to ensure their intellectual development and create equal educational opportunities. The teaching procedure is planned individually. It is systematically monitored in order to incorporate any change that is required for enhancing the learning experience of children and facilitating their growth as individuals. The modern methodology is not only limited to specially designed teaching procedures but also pays attention to providing adapted equipment and materials as well as accessible settings. However, these learning techniques had to be changed in the online mode of teaching during the COVID-19 pandemic. The COVID-19 Pandemic.

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

Three years ago, on March 11, 2020, the director-general of the World Health Organization (WHO), Dr. Tedros Adhanom Ghebreyesus, declared that the global COVID-19 epidemic had become so widespread that it constituted a pandemic. Since then, there have been more than 118.7 million COVID-19 cases globally and more than 2.6 million COVID-19-related deaths. The world faced a global health crisis unlike any in the 75-year history of the United Nations — one that killed people, spread human suffering, and upended people's lives. However, this is much more than a health crisis. It is a human, economic, and social crisis. It has harmed the poor and vulnerable the most, and it is threatening to push millions more into poverty.

Impact of the Pandemic on Educational Institutions

Most Governments around the world had temporarily closed educational institutions to curb the spread of the Covid-19 pandemic. With an increasing number of states, provinces, and even whole countries closing institutions of learning and over 91% of the world's student population are not attending schools/colleges (UNESCO). "The coronavirus pandemic has led to an unprecedented rise in the present time," said Global Partnership to End Violence Executive Director Dr. Howard Taylor. UNICEF put out a report stating, "School closures and strict containment measures mean more and more families are relying on technology and digital solutions to keep children learning, entertained and connected to the outside world, but not all children have the necessary knowledge, skills, and resources to keep themselves safe online".

The online mode of education was a new method of learning for teachers, students, and their parents, especially for educators who had not explored this mode of teaching before.

The Rise of E-Learning

Globally, over 1.2 billion children are out of the classroom environment. As a result, education has changed dramatically. There has been a distinctive rise in e-learning, wherein teaching is undertaken remotely and on digital platforms. E-learning is defined as the use of diverse kinds of Information and Communications Technology (ICT) and electronic devices in teaching (Gaebel et al., 2014). Web-based education, digital learning, interactive learning, computer-assisted teaching, and internet-based learning are known as E-learning. The student becomes a self-directed learner and learns simultaneously and asynchronously at any time.

However, there are many drawbacks to e-learning, the most important of which is gaining knowledge only on a theoretical level, without adequate opportunities or facilities to translate that knowledge into practice and develop skills in practical application (Maatuk, 2021). The sudden transition to online learning has posed many challenges to both faculty and students. Faculty may not have had adequate time to carefully design online courses which take full advantage of the possibilities of the online format. Some faculty may not have had prior online teaching experience and experienced a deeper learning curve when it came to adopting online teaching methods (Aziz et al., 2020).

Most global institutions opt to use synchronous and asynchronous online teaching methods. Synchronous teaching methods are where faculty and their students meet at a pre-scheduled time as a part of interactive learning classes, while in the asynchronous method, there is no interaction between the faculty and students. Asynchronous modes of online learning suit students to access online material whenever they like (Mohsen et al., 2021). Ascough (2002) suggested that online education has the following features: (a) it provides a learning

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

experience different than in the traditional classroom because learners are different, (b) the communication is via computer and the World Wide Web, (c) participation in the classroom by learners are different, (d) the social dynamic of the learning environment is changed, and (e) discrimination and prejudice is minimized.

The Indian Education System During the Pandemic

While countries are at different points in their COVID-19 infection rates, worldwide there are currently more than 1.2 billion children in 186 countries affected by school closures due to the pandemic. The Indian education system is still not mature in both the urban and rural areas.

India has the world's second-largest school system, after China. The structure of the Indian education system i.e., learning methodology, teaching techniques, and assessment methodologies, is quite affected, resulting in a shift to online education with the most focus on virtual education to accomplish the set aims and objectives. However, only a handful of schools and universities could adopt such methods and the low-income private and government schools are quite inefficient to adopt the same, thus resulting in a shutdown. Both teachers and students are facing many hurdles during online education. At home, a lack of basic facilities, external distractions, and family interruption during teaching were major issues noticed. Teachers also faced technical difficulties like lack of technical infrastructure, limited awareness of online teaching platforms, and security concerns; course integration with technology often dampened their engagement in online teaching.

The findings of this research will be grouped into two clusters: students' positive experiences and negative experiences. The students' positive experiences were: flexibility, cost-effectiveness, electronic research availability, and ease of connection to the Internet. The students' negative experiences were identified as: delayed feedback from instructors, unavailable technical support from the instructor, lack of self-regulation and self-motivation, and a sense of isolation (Yang and Cornelius, 2004).

Special Education and E-Learning

Special education requires stricter attention towards students as they have unique needs and ways of imbibing educational concepts. The unique environment created by cyber charter schools could improve outcomes for special education students by addressing the primary weaknesses of traditional brick-and-mortar schools. The primary benefit of online learning is its potential to disrupt and transform the longstanding concept of a real school into a new, more student-centered, and individualized model (Moe & Chubb, 2009). It is essential to understand the importance of implementing new strategies into the pre-existing teaching methods to enable a smooth transition from the offline to the online medium. The system should not only focus on technological transformation but also widen the emotional, cognitive, and social scope of virtual education. The focus should lie on adapting to novel teaching methods and equally on maintaining the all-around growth and development of a student.

Purpose of the Research

Many research studies have been conducted on the new teaching strategies implemented in the online mode for general students and the impact of the COVID-19 lockdown on the education system across the globe. The techniques and methodologies of teaching as a whole are evolving every day with newer forms of technology. The education and learning methods for special students are highly subjective as different students coming from

different histories of disabilities would require specially designed teaching strategies for each individual and a detailed study of the same will shed light on the most novel and innovative yet personal teaching methods devised and inspired by special educators to cope with the physical and social barriers present during a lockdown.

The purpose of the present study is to assess the teaching strategies used by special educators across the city to adapt to a virtual education medium. The study would focus on attaining the educator's insight into the major differences between online and offline teaching modes, and how each mode has been instrumental in education for special students. There are multiple merits and demerits of both online and offline education which can be evaluated to unravel the specific needs of special education as a whole. This can be viewed as a retrospective study of the state of special education in the offline mode as well as the innovations that came up during the online mode which in turn can be used to update the education system now that it is gradually going back to the physical medium of teaching and learning.

REVIEW OF LITERATURE

Study on Students with Special Needs in Digital Classrooms During COVID-19

Research on 'Students with Special Needs in Digital Classrooms during the COVID-19 Pandemic in Turkey' revealed that during the pandemic, special education needs children partially watched EBA TV lessons (Yazcayir & Gurgur, 2021). However, it was found that parents did not understand these and left the children unsupervised. The research revealed that the teachers used Whatsapp groups for the whole general class to share worksheets and lessons were organized. However, the study revealed that the teachers often did not provide any feedback to these worksheets. The study also discovered some major issues of online education namely, lack of access to computers and proper internet facilities, inability to establish communication between children, parents, and teachers, and lack of cooperation regarding distance learning of children with special needs. Findings from the study revealed that the schools failed to provide support education services to the children which is important for children with special needs (Yazcayir & Gurgur, 2021). This study found that out of the total participants, only one student was being provided with special education services. Another interesting finding of this study is that many parents and children gave up on online education because of the prolongation of the lockdown. This research highlighted the failure of teachers to provide for special needs children and support and guide them throughout the pandemic.

Study on major causal factors of success of online education for special children

Cercone (2022) examined the major causal factor of the success of online education for special children. According to Cercone (2022), proper communication between the educators/teachers and the parents of the children is the key to successful online learning for the children. The study revealed parents' increased awareness and knowledge about what was being taught to their children and how the lessons were being planned. This increased awareness led them to raise their voices if something was not working out for their children and also suggest improvements. Parents also received the opportunity to monitor their children's studies and to work with their children. This helped the parents bridge the gap between what was being taught in school and at home and provided them with insight into their children's education. An important finding of this study was that since parents were only receiving instructions from the teachers, it was difficult for them to carry out occupational therapies, physical therapies, and speech therapies as they had no prior training. The time slot for this was found to be only 30 minutes. The instability of internet

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

connection during online therapies often caused the children to miss out on these classes (Cercone, 2022). The study also highlighted the importance of the physical space of a classroom and how not being with peers affected the children negatively.

When school went online due to the pandemic, all students lost the social aspect of public education (Cercone, 2022). Another important contribution of the study is that it showed how compassion and understanding between teachers and students increased during the covid-19 pandemic. The pandemic had made the children get a lot closer to their educators which helped them post-pandemic after offline classes were resumed.

Report on challenges faced by the teachers while teaching children with special needs during COVID-19

A qualitative report by Cousik (2022) on 'COVID-19 Pandemic and Special Education Teacher Voices' reported many challenges faced by the teachers while teaching children with special needs due to the covid-19 pandemic. Analysis of responses indicated several problems faced by teachers – student attention, focus and motivation, minimal to moderate support from the school district, inadequate family involvement, new and confusing mandates by the district and state, and the need for more involvement by general education teachers in special education (Cousik, 2022). Arts-based inquiry involves using visualization, poetry, drawing, and other creative media (Barone & Eisner, 2006; Leavy, 2017). It was found that teachers were overburdened with work and were provided with little to no incentive to compensate for the added workload of figuring out technology. There was also a shortage of staff. Special educators were swamped with tasks that were more intense and could be compared to that faced by healthcare workers and nurses (Cousik, 2022). During the pandemic, teachers needed to provide children with special needs with high-quality detailed instructions and information with limited resources and no training in how to work with online modes of teaching. The study revealed that even after things went back offline, for children with special needs, it was difficult to adjust again to a new environment which was again the responsibility of the teachers to look after.

Participants of this study suggested ways in which they could be compensated for their continued hard work, namely through better pay, increasing general education teacher involvement in the IEP and instruction, revamping the standardized testing mandate for children with disabilities, increased parent involvement in education, and acknowledgment and appreciation of teachers by the media (Cousik, 2022).

Study on teaching special children during the COVID-19 pandemic

In a study titled 'Teaching Special Education during the COVID-19 Pandemic: An Exploratory Study', it was found that several challenges were faced by the children, parents, and teachers while navigating online education (Philip & Bali, 2022). According to the data obtained, Microsoft Teams and WebEx were found to be the most used softwares during this time. A significant challenge faced by the special educators during this time was difficulty in organizing specific teaching training programs for the special educational needs department due to a lack of funds and digital experts in the subject area (Philip & Bali, 2022). Special educators and parents found the children having less progress as compared to the offline mode of learning. This lack of progress was reinforced because of children's low level of involvement with the class and the inability of the special educators to make the classes interesting and fun (Philip & Bali, 2022).

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

The study also revealed challenges faced by the parents during this time with the major one being, dedicating extra time to their children along with their increasing workload at work. For the children, their social and communication skills were the ones which were affected the most during online classes as per the study. This is mainly because the abundance of verbal instructions caused 'sensory overload' and led the children to turn off their cameras and not respond in class.

Article on Special Educators' Experiences with Emergency Remote Teaching in 2020

In an article by Schuck and Lambert (2020) on "Am I Doing Enough?" Special Educators' Experiences with Emergency Remote Teaching in Spring 2020', it was found that the sudden shift to an online mode of learning was deeply unsettling for special education teachers. Schuck and Lambert found that special educators reflected on how important person-to-person learning was for them, especially for the students who were close to giving up. This article also highlights the educator's concerns about offline classes being replaced by online classes because distance learning is cheaper. Teachers found pervasive equity problems with distance learning, particularly for students with significant disabilities. It was revealed that the teachers stressed how demanding online classes were not only for the students but also for the parents of children with significant support needs (Schuck & Lambert, 2020). The important role of parents was also highlighted in this study with parents often assuming the role of the teacher during the pandemic.

Study on the impact of COVID-19 on pre-university education of students with disabilities

A study conducted by Duraku and Nagavci (2020) on the impact of the COVID-19 pandemic on the education of students with disabilities in pre-university education showed that the pandemic, home isolation, lack of socialization and drastic changes in the daily routines have negatively impacted the emotional state of children. The main challenges identified were changes in daily routines, including the prohibition of regular activities, lack of socialization, and changes in learning formats, including a lack of services, which was also emphasized as having affected their emotional state (Duraku & Nagavci, 2020). However, the study also highlighted some advantages of online education for the children like creating new routines, improving their health, becoming more involved in joint activities with their families, and receiving more attention and commitment from their families (ibid, 2020). The study also suggests various ways of improving the quality of education, inclusion, and opportunities for children with disabilities and gives an emphasis on adapting curricula and teaching plans to cater to individual needs, professional development of teachers, provision of services within schools and the involvement and support of parents in the education of their child.

Article on how addressing the pandemic impact on children with special educational needs must be a priority in India

Article titled 'Addressing pandemic impact on children with special educational needs must be a priority in India' in The Financial Express by Bhatt in 2022(MD, Action Dyslexia) points out how the education of children with special needs or learning disabilities was paid little attention to during the chaos surrounding schooling and academics in the pandemic. It thus suffered a significant setback. Online education lacked human and physical interaction which helps in interpersonal skills, promotion of values, ethics, and healthy competition. This had the most adverse effect on students with learning disabilities as they have shorter attention spans and struggle with socialization. Physical teaching with interactive classes can cater to some special lessons such as speech or occupational therapy classes which online classes cannot. As per data available from several institutions, the situation has been serious

– with nearly three out of four parents of children with special needs facing challenges, and in 75% of cases, their child's learning levels have gone several steps back, with required therapies not working. This was especially hard on the parents too who are not equipped to cater to the special needs of these children and found it difficult to teach them without the physical guidance of the special educators. While simultaneously juggling their work life along with supervision of their children, this often led to the parents losing their patience and insulting or physically punishing their child, who is already struggling and vulnerable. While digitalization of the already sparse academic material for these students was difficult, providing them with physical care, support and acceptance through digital modes was almost impossible. At Adhyayan Academy, many expressed that their ability to fully comprehend what is taught has been impacted due to full-time online classes. This was also observed at Shradhanjali Integrated School, operated by the Association of People with Disabilities (APD) in Lingarajapuram, Bangalore, which held a session with a UNICEF communication expert (Bhatt, 2022). Thus, it is imperative that the policymakers and stakeholders incorporate skill enhancement and technology-oriented training the special educators to ensure the smooth functioning of the hybrid online and offline classes which are now becoming common in the post-pandemic era. Interventions need to be planned out keeping in mind both the teaching as well as counseling and vocational training of children with learning disabilities to help them cope with their educational drawbacks during these pandemic years.

Article on Education of Children with Disabilities During Covid-19 Pandemic

An article on the Education of Children with Disabilities during Covid-19 pandemic by Ritu Kalgotra from the Department of School Education, UT of J&K, emphasizes the difference in the rate of learning, memory, and retention of children with learning disabilities; their need for a special learning environment which has led to them being significantly affected due to the closure of special schools during the pandemic. Kalgotra points out how these children are far more vulnerable when it comes to the Indian education system compared to students disadvantaged by caste, religion, gender, etc., and were thus more likely to drop out of schools during the pandemic. A survey was conducted by Swabhimani, a community-based organization, with 3627 learners with disabilities from different areas of Odisha (90%) and 10% from different parts of the country (J&K, Haryana, Pondicherry, MP, TN) participating. The survey further reported that about 56.48% of students with disabilities are continuing their studies and the rest 43.52% will drop out or not continue their studies because only 56.48% had smartphones, either personally or collectively in the family. About 44% of children with disabilities reported that there was no sign language interpreter present on the webinars and nearly 86% of the parents did not know the use of technology (Kalgotra, 2021). Online education is not ideal for children with learning disabilities in India due to inadequate internet access, the complex learning needs of these students, and the financial difficulties of accessing all things digital for those living in remote areas. Teachers also need to prepare individualized, modified learning plans for each of these special children which is difficult to do in online mode. Thus there needs to be government-driven initiatives towards making digital learning more inclusive for children with learning disabilities; training in ICT for special educators so that they can communicate effectively with the maximum number of children through online classes. Developing online personalized learning apps in a disability-specific format could be an innovation (Kalgotra, 2021). There is a need for collaborative effort involving the government, special educators, parents (learning how to set up the equipment properly), teachers, and caregivers to ensure smooth learning for children with learning disabilities in this new digital mode of learning.

Study to determine the behavioral and emotional challenges of children receiving special education during COVID-19

Descriptive study on The Impact of the COVID-19 Pandemic on Children with Special Needs by Ayse Mete Yesil, MD, Buse Sencan, MSc and Elif N. Ozmert, MD of the Hacettepe University evaluated 116 children between 4 to 6 years, who received special education to determine their behavioral and emotional challenges during the pandemic period. According to the families, there was a regression in development in 18.8% of children. Special education practices at home were ceased by 17.2% of families, and a significant difference was found between the groups with and without regression in development in terms of the frequency of continuing special education at home (Yesil, Sencan & Ozmert, 2021). Disruption of the specially crafted education plans for these children due to the pandemic led to behavioral and emotional problems as online education could not meet their developmental and rehabilitation needs adequately or appropriately. Using quantitative descriptive design, online questionnaires were used to enquire from 150 families in Turkey with special children, how their child's development was affected due to the online special education practices during the pandemic. According to the results, COVID-19 had a bad effect on 94.6% of the families, and 76.5% of the children's daily routines were reported to worsen. Screaming, restlessness, and hyperactivity emerged most frequently or the frequency of these behaviors increased (Yesil, Sencan and Ozmert, 2021).

Although 18.6% of the families stated that they received online or mobile support for special education during the pandemic, special education practices at home ceased totally in 17.2% of families. It was found that 4.8% and 33.7% of families were doing total/near-total special education practices at home in children with and without developmental regression, respectively. A significant difference was found between the groups with and without developmental regression in terms of the frequency of continuing special education at home. When the relationship between the frequency of special education practices and daily activities was investigated, a significant correlation was found between the frequency of special education practices and the amount of playing games, reading books, doing housework together, and overall activity duration (Yesil, Sencan& Ozmert, 2021).

Study on parents' views of special education services during COVID-19

"This will likely affect his entire life": Parents' views of special education services during COVID-19, a study by Susan Sonnenschein, Michele L. Stites, Julie A. Grossman, Samantha H. Galczyk of the University of Maryland conducted a study on the parental views of online distance learning and its effects on children with learning disabilities; collecting data through social media surveys. This raised three main areas of concern or complaint: special education and related services were significantly reduced during online education for these children. Although almost all the parents mentioned this, parents of older children (e.g., middle and high school age) were more likely to report a significant decrease. Although an overall general dissatisfaction with distance learning was reported by parents, a small percentage of parents reported their child was more successful when learning remotely. Sixty percent of parents reported their children received fewer special education hours following the closures. Parents also reported a significant decrease in the number of hours of related services (e.g., Physical Therapy, Occupational Therapy, Speech/Language Therapy) when schools transitioned to distance learning (Sonnenschein et al., 2022). Secondly, they were unable to operate the devices or engage in online learning with adult help. They indicated that their child needed constant adult support (40%), and the lessons and activities took too much time (15%). Parental responses to multiple choice questions indicated that they have concerns about their children's loss of social skills (51%), decrease

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

in academic skills (43%), the skills fostered by related services (22%), and their daily living skills (16%) if distance learning is to continue. Twenty-four percent were concerned that there might be a reduction in special education services once children returned to school and the school did not provide adequate directions (13%). Parents were also disturbed by the time management demands while simultaneously juggling work as well as home.

METHODOLOGY

This chapter highlights the techniques implemented and procedures carried out in the study. A research methodology is the researcher's way of outlining their intentions for the study, the course of action taken and the demography of the population worked with. The methodology will also provide all the readers, scholars, or people who intend to carry out similar research in this area with an integrative idea of all measures and proceedings of the present study. The contents of this chapter include objectives, sampling criteria, sample size, sampling techniques, tools incorporated, procedure for data collection, and method of data analysis.

Objectives

1. To determine the problems faced by special educators with respect to an online mode of study undertaken during the COVID-19 pandemic.
2. To identify the benefits and positive aspects of virtual education for special students.
3. To highlight several unique and novel teaching strategies implemented by special educators to make learning effective even in the online structure.

Sample

The sample for the present study is Special Educators from reputed schools or organizations in Kolkata, India. The educators are trained in their respective fields with considerable years of experience in dealing with special children and educating them. They further work with students across all ages suffering from a wide spectrum of disabilities.

Inclusion Criteria

The desired characteristics of the sample were that they should be special educators who have taught before the COVID-19 pandemic in 2020 as well as prior to the pandemic, when teaching and learning were primarily conducted in an offline mode, in physical classrooms using face-to-face techniques.

Exclusion Criteria

Special educators who had no experience in teaching in a purely offline setting prior to the digital surge during the pandemic were excluded from the study. This was done to ensure that all educators have insight into the changes undergone before, during, and after the pandemic.

Thus, educators who had started teaching right during the pandemic were not a part of the sample.

Sample Size

The sample size of this study is 16. There were 15 female special educators and 1 male special educator. They were all affiliated with special institutes or schools in Kolkata where special students received online education during the pandemic. They all had more than 8 years of experience working as special educators.

Sampling Technique

Convenience Sampling Technique was the sampling technique used in the present study. Convenience Sampling is a type of non-probability sampling that allows researchers to collect data from a conveniently available sample and select units for inclusion based on the criteria for the study. In exploratory research, purposive or judgemental sampling methods are based on the typicality of the sample where the sample is handpicked to ensure the best representation of the population. For the present study, a convenience sampling method was used as the study demanded data to be collected from a very specific kind of population of people who were special educators in Kolkata with experiences of teaching during and prior to the pandemic. The advantage of this technique was that it did not involve any random selection process and guaranteed that all participants of the study were relevant to the research design. However, some disadvantages of this sampling method are that it inhibits a researcher's ability to generalize all findings, leaves ample scope for introducing subjectivity, and places too much emphasis on the ability of the researchers to assess the typicality of all elements of the population.

Tools

A semi-structured interview schedule was prepared as the tool for this study. A semi-structured interview is a data collection method that involves asking participants a set of open-ended questions and following them up with probe questions to explore further their response and the topic of interest. Semi-structured interviews in qualitative research are a blend of structured and unstructured interviews in that some questions are predetermined while others are not. Semi-structured interviews allow the researchers to focus on the topic of interest while still giving them the autonomy to explore relevant ideas that may come up during the interview. In this study, questions for the semi-structured interview were framed on the basis of the objectives of the study, to elicit answers from respondents that will help us fulfill the objectives of the study.

Procedure for Data Collection

The interview method was used in the present study to collect data from the participants. An interview is a qualitative research method that relies on asking questions in order to collect data. Interviews involve two or more people, one of whom is the interviewer asking the questions. The other is the interviewee, who answers the interviewer's questions. There are several types of interviews, often differentiated by their level of structure. For the present study, a semi-structured interview schedule was prepared. A semi-structured interview is a qualitative research method that combines a predetermined set of open questions (questions that prompt discussion) with the opportunity for the interviewer to explore particular themes or responses further. Semi-structured interviews are said to have the advantages of both structured and unstructured interview methods. It combines elements of organized and unstructured methods of data collection to give reliable, comparable data and the capacity to ask follow-up questions to the participants wherever further clarification is required. It fosters a two-way dialogue that can record information in depth and detail. Participants may be asked to clarify, expand, and/or rephrase their responses. However, the semi-structured interview method also has the disadvantage of eliciting social desirability bias. Its open-ended nature can also compromise its validity in certain occasions.

For the present study, semi-structured interviews were conducted with the participants both online and in a face-to-face setting. The questions addressed the methods by which special educators were able to continue assisting students with learning disabilities in the online mode. The innovations and changes brought about in online teaching, as compared to

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

classroom teaching, were especially emphasized. Online meeting platforms such as Gmeet and Zoom were used to conduct the interviews online due to difficulty in arranging physical interviews following COVID-19 health precautions. A few interviews were conducted over the phone as well. The conversations were audio recorded with the participants' permission. Subsequently, transcripts of the interviews were written.

Method of Data Analysis

A transcript of a conversation or speech is a written text of it, based on a recording or notes (Collins Dictionary). For qualitative research, interviews are often used for collecting data. Interviews help us get valuable and in-depth information about our research topic. For the purpose of making the interview data easy to access and decreasing the workload, transcripts are used. Transcription gives us a written description of the interview which is held verbally. For the present study, transcripts for all the interviewees were written in full detail.

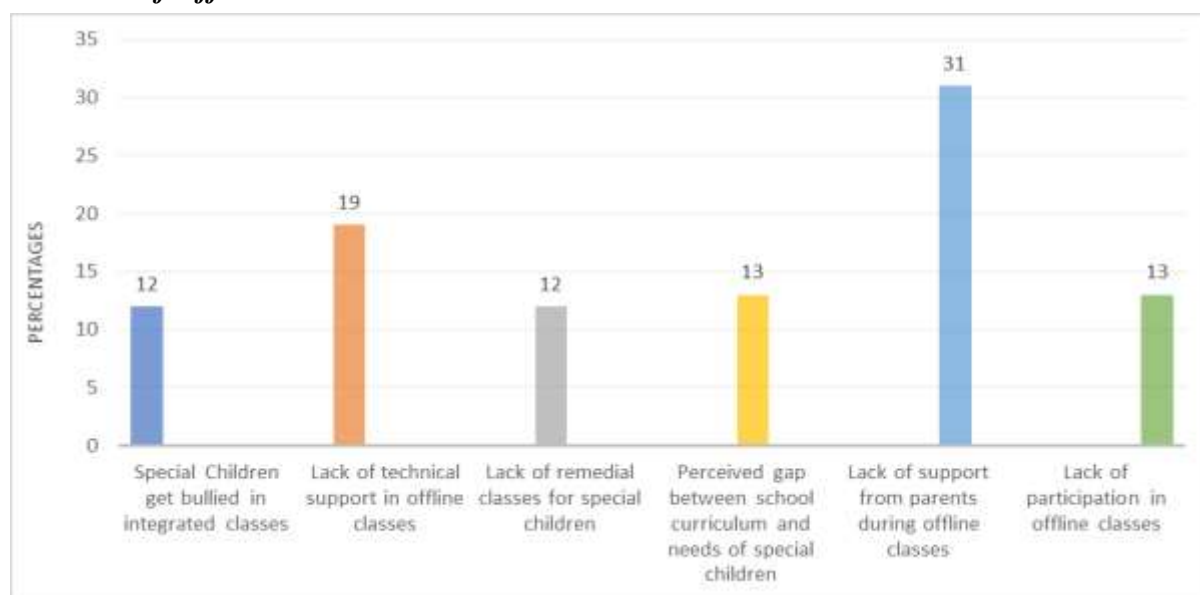
The written data was then thematically categorized and color-coded for the purpose of making the data easy to understand, refer to and analyze. Six colors were used to separate the information received into the themes of the study. Light pink was used to categorize general information, yellow was used to denote problems of online education, yellow ochre was used to identify problems of offline education, blue was used to categorize benefits of online education, green was used to identify the good things that happened during online education and purple was used to denote the strategies employed by the special educators during online education.

Ultimately, five major themes were identified from the collected data.

RESULTS

Five themes were identified from the data collected from interviews with special educators. The significant findings have been represented graphically under each theme.

Problems of Offline Education



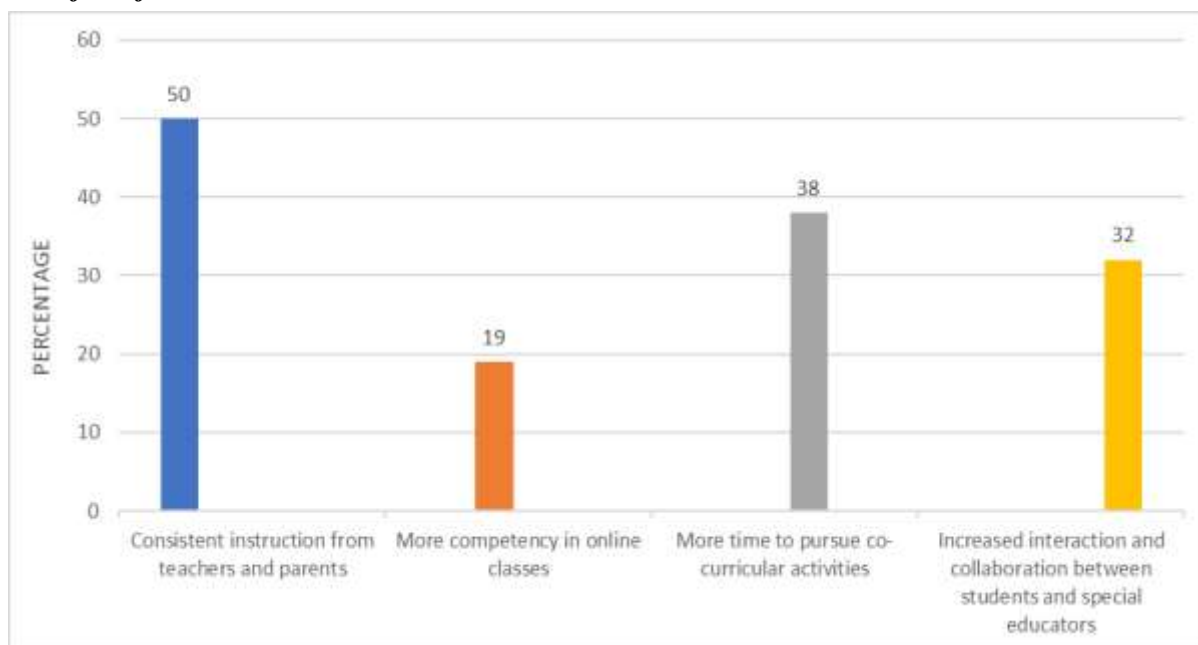
Note. Total number of special educators interviewed= 16 (N=16)

Figure 1 Problems of offline education, as described by special educators

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

Analysis of the interviews conducted with special educators shows that 12% of the interviews informed of the special children facing bullying and teasing while attending classes with their neurotypical peers. Figure 1 shows 13% have reported significant positive change in class participation, compared to offline classes. 19% of the special educators mentioned a lack of proper technical support and resources in offline classes, compared to online ones. 12% of the interviewees have mentioned there are not sufficient remedial services for special needs students when they fall behind in their academics. As much as 31% of the respondents have reported lack of support from and communication with the parents of the special needs children; their overdependence on the schools and their un-involvement with their kids' academics.

Benefits of Online Education

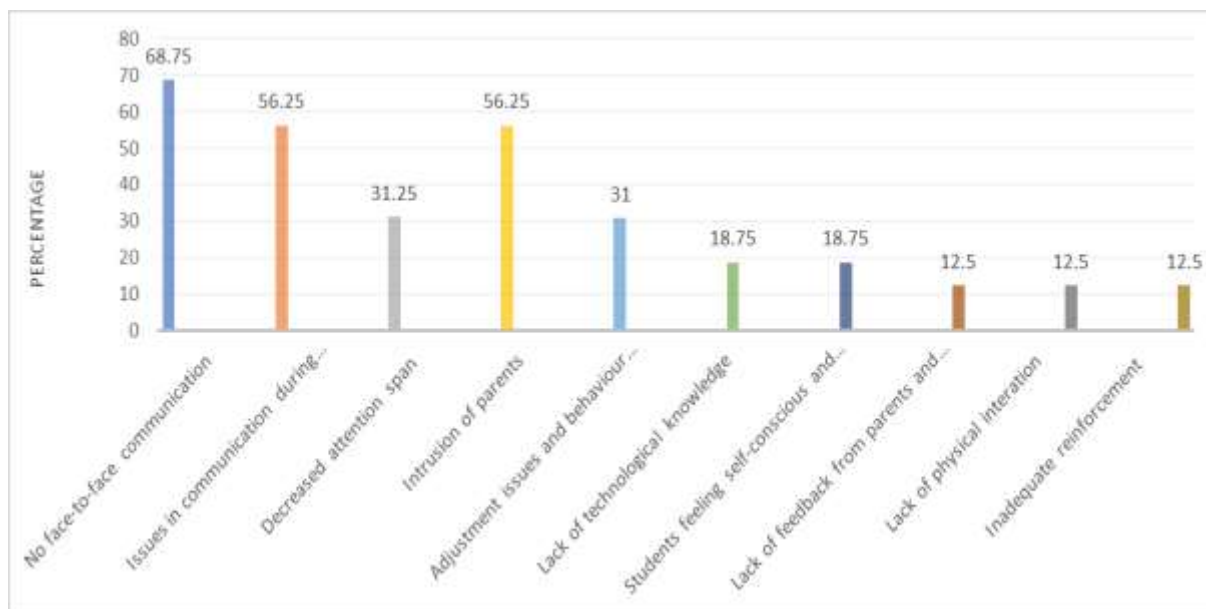


Note. Number of special educators interviewed= 16 (N=16)

Figure 2 Benefits of online education

Figure 2 shows 50% of the interviewees talked of improved learning for special children in online classes, majorly accelerated by their parents' increased involvement in their academics. Congruence of both teachers' and parents' guidance, attention, and feedback helped the students to learn better. 19% of the teachers witnessed their special needs students flourishing in the online class environment, as they no longer were being made to feel uncomfortable or disrespected by their neurotypical peers due to their special needs. 38% of the special educators mentioned how online classes made it possible for their students to invest more time in their hobbies, and co-curricular; work on other non-academic interests. 32% of the interviewees also talked of forming closer bonds with their students during the period of online classes, due to the aspect of more individualized attention.

Problems of Online Education

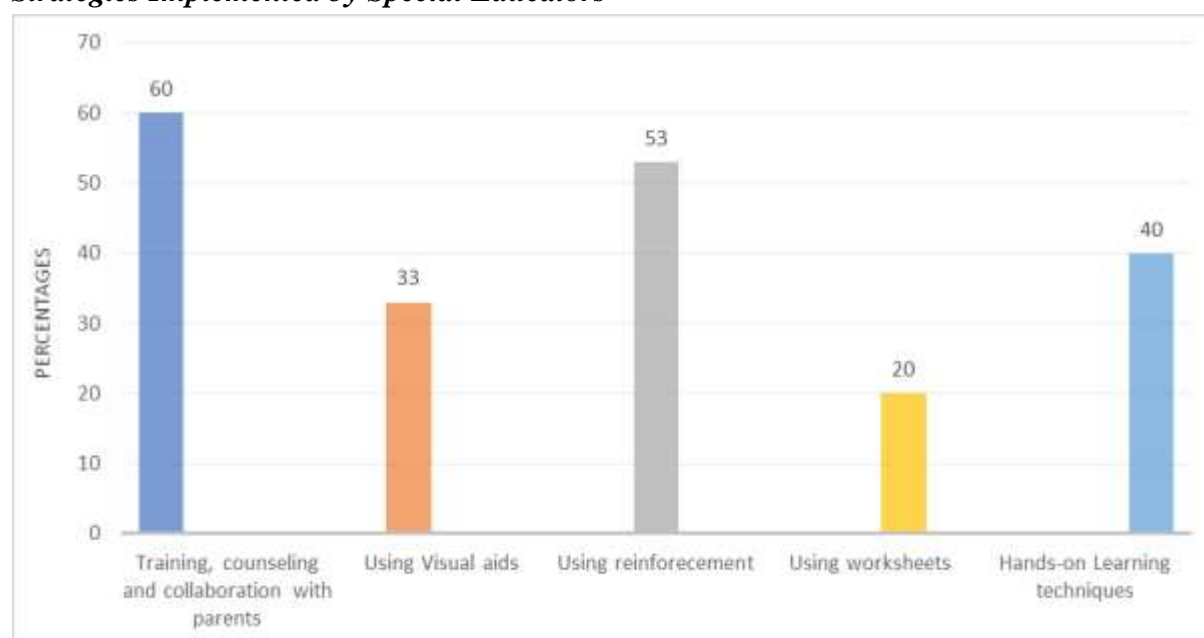


Note. Total number of special educators interviewed= 16 (N=16)

Figure 3 Problems of online education

Figure 3 shows 68.75% of the interviewees reported that lack of physical contact and face-to-face communication negatively impacted the teaching-learning process as well as the student-teacher relationship. 56.25% mentioned that communication with the students on digital interfaces became difficult and strenuous. 56.25% of the educators said that the presence of the parents during the children’s classes led to their overinvolvement and intrusion, hindering their independent process of learning. 31% reported significant behavioral problems of the special children when it came to their adjusting to the online classes; mainly over-responsiveness or aggression and irritability. 18.75% of the special educators mentioned how the students faced problems in figuring out the technicalities of the technological devices and interfaces, leading to their difficulty in smoothly attending and participating in online classes. 18.75% of the interviewees talked about their students being unable to voice out their difficulties and interact properly due to their self-confidence or motivational concerns. 12.5% of the educators were faced with unresponsive children and parents which made it difficult for them to help the children by implementing any proper strategies. 12.5% again reported difficulties caused by a lack of physical interaction. 12.5% of the special educators mentioned how their students did not have proper internet or WIFI services which disrupted the regular flow of their classes. 12.5% of the interviewees complained of being unable to provide proper learning reinforcements to the students, impeding student therapy and affecting the students’ spontaneous learning.

Strategies Implemented by Special Educators

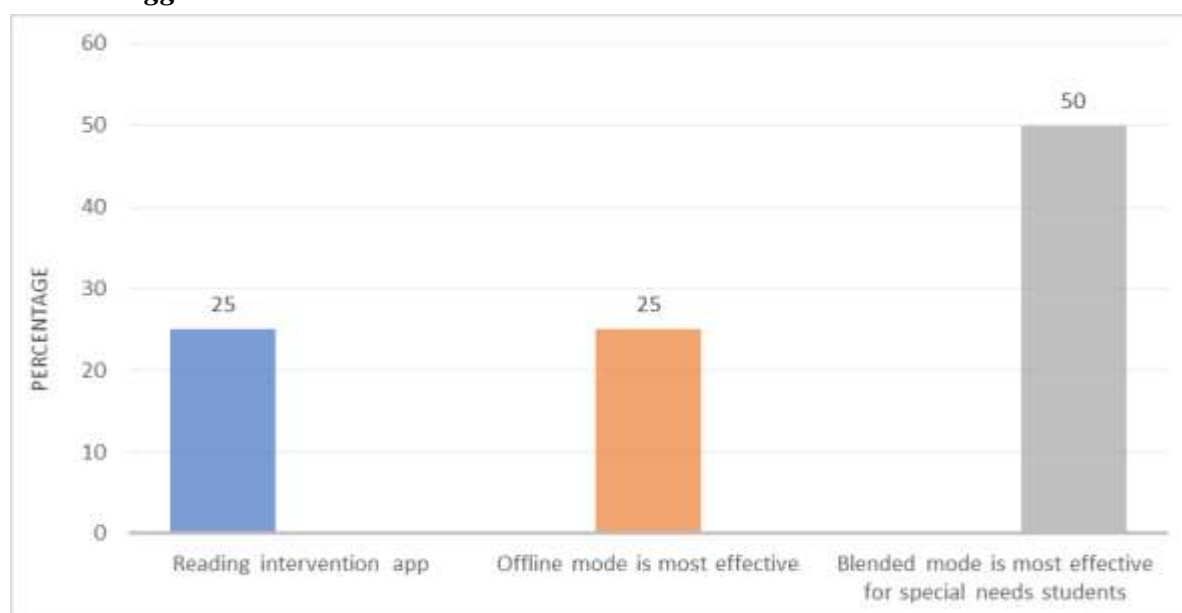


Note. Total number of special educators interviewed= 16 (N=16)

Figure 4 *Strategies utilized by special educators*

Figure 4 shows that it has been found that 60% of the teachers spoke of using strategies which involved training, counseling, and collaboration with the parents. The parents of the special needs children were educated on how to help their children adapt to the online mode of learning. Parents were advised to keep the children engaged with various activities as suggested by the teachers. The parents helped in recording videos and completion of home assignments which were provided by the teachers. Thus, much of the success of the online teaching-learning experience depended upon the collaboration with parents. 33% of the teachers reported using visual slides in the form of PowerPoint presentations to teach the students. PPTs and conducting classes by sharing screens were reportedly quite effective. Teachers made creative and attractive slides with features like animation or “innovative pictures” to make learning easier for the children. Using colour coordination for separate topics also proved to be an effective strategy. 53% of the teachers mentioned using reinforcements in various forms to get the students used to and consistent with their online classes. These ranged from promises of physical rewards when offline classes start, video watching made by the teachers or from the internet, watching entertainment shows; eating a favourite food, or listening to music after task completion to even teachers showing their faces in video call every day. 20% of the teachers mentioned using worksheets. Some teachers filled out the worksheet themselves and asked the students to replicate it in order to aid their understanding of spatial distribution. 40% of the teachers had integrated hands-on learning like learning from the surroundings, and immediate environment (like they would be asked to look around and then talk about whatever they could see).

Future Suggestions



Note. Total number of special educators interviewed= 16 (N=16)

Figure 5 Suggestions by special educators

Figure 5 shows 25% of the special educators suggested that a reading intervention app could be developed. This would help students develop their reading skills through app-based training from home and would be useful for parents also as they could accompany and help their child while they learn. 25% of the special educators opined that the offline mode of teaching is the only method that can be used because the children need to spend quality time with the teacher in order to learn effectively. 50% of the special educators were of the opinion that a blended mode of teaching would be most effective in teaching children with special needs. It was emphasized that ‘both systems should go hand in hand.’ Some components of online activities should also be incorporated into the teaching method to enhance the learning experience of children with special needs.

DISCUSSION

Problems of Offline Education

Though the offline mode of special education is the most common method for imparting knowledge and training to children with learning difficulties, our respondents reported several issues in the physical infrastructure that was present in the offline class before the pandemic.

12% of the special educators have informed that when children with special needs attend classes with their neurotypical peers, they are teased and bullied. They encounter offensive remarks that affect their sentiments and they behave reactively to defend themselves, often becoming violent. 13% of the respondents have said that they have observed a marked change in class participation from their students compared to what was the case in the offline classes. Students have begun to speak up who previously had a hard time interacting in the classroom setting. As far as infrastructure is concerned, 19% of the interviewees say that one of the biggest challenges of physical special education classes is the lack of technical support. The use of audio-visual aids and ppts was very limited, often used only for difficult topics. Teaching/ learning materials and flashcards are perceived as less

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

effective than the instant availability of online resources. The educators also reported feeling overwhelmed providing optimal attention to all the students simultaneously. 12% of informants have said that there is a lacuna of services for special needs children in terms of remediation or remedial input when they fall behind their peers in school. In integrated schools with both neurotypical students and children with learning disabilities, there is a lack of space and resources to cater to the needs of special children. Due to limited facilities designed specifically for students with learning disabilities, many cannot keep up with their curriculum and fall behind in their studies. This issue has been raised by 13% of the interviewed special educators. There seems to be a gap between the school curriculum and special needs students.

31% of the respondents have spoken extensively about the previous lack of support from parents of special needs children during the offline classes before the pandemic. Special educators complained about the heavy dependence of parents on the schools for the training of their children. There was a lack of support and parental supervision during the physical mode of instruction. There was infrequent interaction with the parents and parental observation of classes was also rare. Hence, they remained mostly uninformed of the school curriculum. The uninvolvedness of parents led to an incongruence of instruction in school and at home for special needs children. Parents could not provide well-informed feedback and review in the yearly progress reports, which hindered adequate assessment of the students.

Benefits of Online Education

Regarding the benefits and positives of online education, several respondents highlighted how online education was a 'blessing in disguise'. One of the significant advantages of online education as reported by many respondents was the increased parental involvement in children's education. 50% of the respondents reported that children were able to learn better during the pandemic because the instructions received from the school and parents were the same. As one interviewee said, parents were accompanying and observing their children during class hours.

This led to a better understanding of their child's strengths and weaknesses. As a result, parents became more attentive to their child's needs. Two respondents mainly talked about how mothers were involved in their child's education during the pandemic. During the pandemic, parents became more attuned to their children's academic needs and vulnerabilities. They became children's foster trainers. The educators also held webinars and conferences where they discussed how other teachers are teaching and how parents are dealing with it. Education during the pandemic could be sustained because of the parents.

An important finding highlighting the benefits of online education was that many children became more attentive and active in class because they were not being teased or bullied by their peers. 19% of the respondents said that because of the online mode of learning, children with learning disabilities did not have to go through the 'traumatizing' experience of not being able to do stuff in class. Children who were made fun of in class, bloomed during online education as this gave them a new learning opportunity. Academic performance of children improved for those who are often affected by environmental factors. Such children could work very well in sterile environments where they were comfortable. Children who would stay quiet in physical classes, would speak up a lot more during online classes. According to every child's cognitive level, each of them developed.

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

Another advantage that was brought about by online education was the increased involvement in co-curricular activities. 38% of the interviewees responded that because of the online mode of learning, children had time to engage in several co-curricular activities. They were encouraged by the educators and also their parents. Children could also focus on developing their skills in their spare time. Children were thus engaged in and enjoyed various activities like art and craft, needle classes, singing, dance, storytelling, cooking, and video editing.

During the online mode of teaching and learning, there was increased interaction between the children and the educators as well. As quoted by one respondent, there was 'more openness in interaction'. Out of the 16 respondents, 32% reported that they had felt quite close with the children during the 2 years of online education. There was more individualized attention. The children benefited when they saw the educators on screen because they felt they were much closer to them than in a normal classroom.

For children with learning disabilities, online education led to their heightened access to study materials beyond class hours which was extremely beneficial. They could take screenshots of the class notes and nobody was there to hurry them to finish their work. Since times were tough, they were often given more days to finish their tasks. One interviewee reported that children were given the freedom of the whole day to work out on the activities and send feedback videos. Children thus were taught in class but they had the whole day to do certain tasks and activities that the teachers would reply to in the evening. School during the pandemic had given children the flexibility of time and there was no rush. Educators also made sure that the activities of the class were very interactive. For children who were audio-visual learners, showing PowerPoint presentations, and YouTube videos, images of things that they were being taught were extremely beneficial. It helped them to relate and connect to the study material.

Problems of Online Education

With the shift of the mode of education to an entirely online mode, educators across the world had to adapt to newer ways of teaching. The community of special educators was no exception to the situation. There was a large-scale need to focus on teaching via virtual media. Although online education gave educators and students the privilege to connect with each other in the comfort of their own homes to escape the wrath of the global pandemic, it came with its own disadvantages. A major drawback of the online mode is the absence of human presence. 68.75% of our respondents mentioned how the lack of face-to-face communication with their students hindered the process of teaching and learning. They even specified how it weakened the bond they shared with the students due to the lack of touch and eye contact. Some of these respondents even explained how the lack of interaction with peers dampened the interest of their students and decreased their involvement in class. 56.25% of the special educators complained about the communication issues that cropped up during the online classes. The cold computer screens acted as barriers to smooth-flowing communication between the students and their teachers. 56.25% of these educators stated the intrusion of parents as a primary problem of online education.

The parents of the special children were either over-involved and intrusive, leaving the child with no scope for independence in their work or they were clueless about the procedure of online classes resulting in a lack of understanding on the part of the child as well. 31.25% of the respondent described how the virtual mode caused multiple distractions in a student and decreased their attention span visibly. They found it impossible to concentrate in class for a

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

long duration. 31% of the special teachers who taught during the pandemic saw drastic changes in the behavior of a student which led to a lot of problems in adapting to a new mode of education.

They were observed to be either excessively silent and non-responsive or exceedingly agitated and aggressive while being a part of this process. 18.75% of the teachers noticed how a lack of technological knowledge could hamper the proceedings of a class, due to the children not being tech-savvy and their parents being unable to provide the necessary help. They would be unable to coordinate between the activities of the camera and the microphone, they would fail to follow basic instructions like joining a meeting or turning on their camera while speaking.

An unstable internet connection or poor Wi-Fi network would often lead to the termination of a class. 18.75% of educators justified how the students are self-conscious and lack motivation which caused difficulties in them interacting in class or feeling confident to address the problems that they might be facing. 12.5% of the research respondents felt that they could not implement any real strategies to help the child learn better due to the absence of any feedback from the child as well as their parents. The lack of communication from feedback and discussions added to the problems of online education. 12.5% of the respondents complained that physical interaction with students was missing. 12.5% of the teachers complained that their students faced internet issues that would disrupt the flow of classes and lack of adequate broadband or Wi-Fi was a primary cause behind the interruption of class activities.

Some other problems of online education brought up by educators were the increase of cheating activities while answering exams or doing class assignments entirely using the support of the internet. A helpless addiction to mobile phones was also a major problem faced by the students and it was always not constructive to their education process, which was pointed out by some respondents. Further, it was pointed out by educators that the thought process was very disturbed due to the uncertainties that the pandemic imposed on all the students. 12.5% of the teachers even complained about how reinforcements to enable learning could not be provided by them to the students which also caused a hindrance in the practice of student therapy, bringing forth a lack of spontaneity.

Strategies Implemented by Special Educators

Several diverse innovative strategies were used by the special educators to make online learning easier for the children. Almost all teachers interviewed first spoke of using digital interfaces like Google Meet and Zoom to connect with their students online. Further digital apps and services like Whiteboard, creating colorful learning material through Canva were used to help children grasp the information easily. Teachers also spoke of seeking help from YouTube videos to learn new digital methods and strategies themselves. Some of them spoke of using unique applications like “Google Bolo” which is a reading app from Google to help the students overcome their learning difficulties online. 2 teachers also mentioned using interactive websites (like Tiny Tabs) to help teach children better.

60% of the teachers spoke of using strategies which involved training, counseling, and collaboration with the parents. Parents were counseled by these teachers to appropriately supervise and assist their children with online learning. These included the parents recording videos of the children doing the activity or exercise after the class is done or specifically asking the guardian who was sitting to give some exercises to understand whether he/she

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

understood or not. Parents, as instructed by the teachers, also helped the students with setting up and using the digital interfaces or devices like helping them take proper pictures of the assignment to be sent to the teacher. Some teachers also suggested to the parents to avoid over-interference with or excessive supervision of the children's learning process as it would hinder the teacher's assessment of how much the child has understood the topic on their own. Thus, a major part of the teachers' strategies for online learning was based on their effective collaboration with the parents.

33% of the teachers spoke of using visual slides in the form of PowerPoint presentations to teach the students. As one teacher said, "We would make instant PPTs on our laptop depending on the goal that the child has to complete that day. So, I don't think there could have been any other infrastructure better than that. PPTs and conducting classes by sharing screens was enough for me." Teachers made creative and attractive slides with features like animation or "innovative pictures" to make learning easier for the children. One of the teachers said that she color coordinated the slides according to the subtopics ("the dividends in the entire slide are written in pink whereas the divisors are written in yellow") to help children understand and quickly grasp the entire thing.

53% of the teachers mentioned using reinforcements in various forms to get the students used to and consistent with their online classes. These ranged from promises of physical rewards when offline classes start, video watching made by the teachers or from the internet, watching entertainment shows, eating a favourite food, or listening to music after task completion to even teachers showing their faces in video calls every day. "Watching informative and interesting videos was one of the major focuses on my part. That was the kind of change in the reinforcement from the food or a sticker that you would give off-line." One of the teachers also mentioned that the fact that their students can see them on camera reinforces them - that "Ma'am is taking the session, I can see ma'am." "This in itself is significant, that they are doing class regularly and that everything hasn't entirely stopped." Another example mentioned was: "A boy who loves listening to music, would often ask his mother to play songs for him using signs. I had strictly instructed his mother to play music only if he verbally expresses it, even if just a syllable."

Two teachers had incorporated an online celebration of programs/festivities, summer camp, and workshops. "Writers' workshop session where a student learns to believe there is a writer within all of us and there is a right for us to decide what we want to talk about in the session or not talk about." Like one of the teachers also mentioned conducting a seven-day virtual summer camp to ensure that the offline activities and traditions are continued as much as possible. 20% of the teachers mentioned using worksheets. One of the teachers said, "For children with dysgraphia, I used to print out worksheets and fill them out myself and asked the children to copy them so that they could follow them properly. So, their space concept and way of writing have improved a lot."

40% of the teachers have integrated hands-on learning like learning from the surroundings and immediate environment (like they would be asked to look around and then talk about whatever they could see. Like if they saw a vendor outside, which would never be possible in a class setting, they would discuss that) or real life problems as one of the strategies for online learning. 2 people talked of scavenger hunt with the things found in the home. Household objects of everyday use were used for crafts (recycle and use all materials lying around the house for various vocational activities). Hands-on activities (like making sanitizer at home) were initiated to improve the students' motor coordination. One of the

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

teachers said she would “simply play songs on Google Meet where the kids would just dance and shake their legs.” As mentioned by another teacher “Say I am teaching them a story on colors, I would tell them that they could do some crafts thereafter using only those colors that are mentioned in the story.”

Teachers also used open-ended questions to reduce the communication gap and ensure that all children participated and interacted in class. 3 teachers said regular breaks were given between their classes (“reduced the duration of the sessions. So, an hour-long session was broken into 3 days initially, we just chat with them and not teach for the entirety of 45 minutes”).

2 teachers mentioned making hand made teaching aids. As said by one of the teachers, “Most children didn't even have a calendar at home. So I made a customized calendar for the students which had pictorial clues”. Teaching covid protocols in the online classes was also mentioned which is now helping in ensuring the children’s safety in the offline classes. 2 teachers had asked the students to record videos of themselves doing certain activities and then grade them based on that. One of the teachers also spoke of only vocal toning, not scolding. “So, in a story-telling manner or jokingly we tried to keep their attention in the class.”

Future Suggestions

50% of the special educators believed that a blended mode of teaching would be most effective in teaching children with special needs. It was emphasized that “both systems should go hand in hand.” Some components of online activities should also be incorporated into the teaching method to enhance the learning experience of children with special needs. 25% of the special educators opined that the offline mode of teaching is the only method that can be used because the children need to spend quality time with the teacher to learn effectively. 25% of the special educators also suggested that a reading intervention app could be developed. This would help students develop their reading skills through app-based training from home and would be useful for parents also as they could accompany and help their child while they learn.

CONCLUSION

Cases of the Coronavirus surged throughout the entire world including in India, which became the third worst-affected country by June 2020. This had a crippling impact on all sectors of the country; including the Indian education system. The global estimate of 1.5 billion students affected by educational discontinuity and disruption does not consider all of those who are marginalized, disadvantaged, or ‘invisible’ in educational systems (UNESCO, 2020e). This includes the special children whose shortcomings, fragilities, risks, and inequalities in education were exposed by the pandemic. In India too, the pandemic has caused a learning disruption (and possibly learning losses), increased inequality in access to education, and failure to access therapeutic interventions for special students. The present qualitative research identified significant themes discussed by most special educators during their semi-structured interviews.

The participants highlighted the problems in their regular offline classes, the benefits and shortcomings in the online mode of teaching, and the strategies they implemented to overcome the difficulties in teaching special needs students on an online platform. It was found that almost 50% of the participants prefer a blended mode of teaching, incorporating the infrastructure of both online and offline education. The participants also elaborated on

the crucial role of parents in the education of special students and how an ideal education would integrate different sources and forms of information for the holistic development of students.

Limitations of the Study

The study was conducted on a limited scale with only 16 special educators in the city of Kolkata, India, being interviewed. Convenience sampling was done to select the participants through known contacts. Most of the interviews were conducted on an online video conferencing platform, thus providing limited information as compared to an offline data collection process.

Review could not be done based on the specific requirements of students with particular disabilities. The needs of individuals with autism spectrum disorders are expected to be different to that of individuals with intellectual disabilities. This area of the study could not be explored further due to time constraints. The present study was conducted by undergraduate students pursuing a Psychology degree. The students utilized elementary information gained from their curriculum in conducting the study.

Applications

The strategies highlighted in the present study can be used by other special educators to implement newer ways of imparting education to special students, especially in a virtual setting. The study can further be used by educational institutes and organizations who are willing to start a special education programme for students across all age groups and coming from a wide spectrum of disabilities and disorders. The methods specified in the study can act as a means of inspiration for special educators who are continuing to conduct courses and lessons for special students in the online mode. The strategies delineated in the study can be used by parents of special children to use newer teaching methods, incorporate interactive activities into learning methods even in their own homes, use appropriate and effective reinforcements for their children, etc. The study can help schools to organize various events with special students and general students to help in bridging the gap between students coming from varying backgrounds. The new teaching methods described in the study can be used for special children who are not equipped to attend schools or cope with the offline education curricula.

Implications

The study has profound implications in the field of education for special needs students and special educators. This study highlights the benefits as well as disadvantages of the online and offline modes of education. Some of the novel practices introduced in the field of special education through the virtual mode need to be incorporated in the physical classrooms as well. A blended mode of teaching and learning seems to be the future of education and guided learning for children with disabilities. The innovative teaching strategies implemented by the respondents of the study cannot be completely eliminated from the modern-day practices of special education. Hence this study suggests ways in which teaching methods and classroom aids need to evolve to fit the specific needs of special students. The study further sets the framework for further infrastructural and administrative policies to be constructed and undertaken by policymakers devoted to the development of special educational needs. 50% of the interviewees emphasized the necessity of a hybrid model of education to ensure the holistic development of students with special needs and translated all the virtual methods devised into a real-life classroom setup and pursued beyond the trying circumstances of a worldwide lockdown.

Practices like establishing a social network with educators across the globe, using e-learning aids and equipment, and using reinforcements and internet resources need to prevail even after education has reverted to the original offline mode. The study has scope for subsequent research in the field of special learning to assess the role of parents in the education of special children and how new strategies can lead to upliftment in the teaching world and even open up avenues to start courses that can be entirely conducted in the online mode for students who lack the means of accessing physical classes.

Suggestions for Future Studies

Studies can be conducted in the future to better understand the impact of the pandemic on special education where the sample size is larger. Additionally, future studies can categorize the different kinds of requirements that children with special needs have, to gain a more detailed understanding of how transitioning to e-learning affects the education of such children. For example, they may distinguish between the needs of a child with high-functioning autism and a child with intellectual deficiency. Further research can also be conducted to develop novel strategies that combine the best parts of online and offline teaching in order to improve the learning experience of students with special needs.

REFERENCES

- Almahasees, Z., Mohsen, K., & Amin, M. M. (2021b). Faculty's and Students' Perceptions of Online Learning During COVID-19. *Frontiers in Education*, 6. <https://doi.org/10.3389/feduc.2021.638470>
- Ascough, R. (2002). Designing for online distance education: putting pedagogy before technology. *Teaching Theology and Religion*, 5(1), 17-29. Retrieved from <http://www.wiley.com/bw/journal.asp?ref=1368-4868&site=1>.
- Cercone, Megan, "A Case Study on Special Education and the COVID-19 Pandemic" (2022). Williams Honors College, Honors Research Projects. 1586. https://ideaexchange.uakron.edu/honors_research_projects/1586
- Cousik, R. (2022). COVID-19 Pandemic and Special Education Teacher Voices. *The Qualitative Report*, 27(11), 2486-2500. <https://doi.org/10.46743/2160-3715/2022.5553>
- Detterman, D. K., & Thompson, L. A. (1997). What is so special about special education? *American Psychologist*, 52(10), 1082-1090.
- D. E., By, -, Daily Excelsior <https://www.dailyexcelsior.com/> The Leading Daily of Jammu and Kashmir, Excelsior, D., & The Leading Daily of Jammu and Kashmir. (2023, January 25). *Education of children with disabilities during covid-19 pandemic - Jammu Kashmir latest news: Tourism: Breaking news J&K*. Jammu Kashmir Latest News | Tourism | Breaking News J&K. Retrieved March 6, 2023, from <https://www.dailyexcelsior.com/education-of-children-with-disabilities-during-covid-19-pandemic/>
- Duraku, Z. H., Nagavci, M. (2020). The impact of the COVID-19 pandemic on the education of students with disabilities in pre-university education. https://www.researchgate.net/publication/342282642_The_impact_of_the_COVID-19_pandemic_on_the_education_of_students_with_disabilities_in_pre-university_education
- Gaebel, M. (n.d.). *E-Learning in European Higher Education Institutions: Results of a Mapping Survey Conducted in October-December 2013*. <https://eric.ed.gov/?id=ED571264>
- Guest. (2022, March 28). *Financialexpress*. The Financial Express. Retrieved March 6, 2023, <https://www.financialexpress.com/lifestyle/health/addressing-pandemic-impact-on-children-with-special-educational-needs-must-be-a-priority-in-india/2473846/>
- Iyer P., Aziz K., Ojcius D.M., (2020). Impact of COVID-19 on dental education in the United States. *Journal of Dental Education*, 84(6): 718-722.

Special Education During the Covid-19 Pandemic: Perspectives of Special Educators

- Jena, P. K. (2020). Online learning during lockdown period for covid-19 in India. *International Journal of Multidisciplinary Educational Research (IJMER)*, 9.
- Maatuk, A. M., Elberkawi, E. K., Aljawarneh, S., Rashaideh, H., & Alharbi, H. (2021). The COVID-19 pandemic and E-learning: challenges and opportunities from the perspective of students and instructors. *Journal of Computing in Higher Education*, 34(1), 21–38. <https://doi.org/10.1007/s12528-021-09274-2>.
- Mascheretti, S., Andreola, C., Scaini, S., & Sulpizio, S. (2018). Beyond genes: A systematic review of environmental risk factors in specific reading disorder. *Research in Developmental Disabilities*, 82, 147–152. <https://doi.org/10.1016/j.ridd.2018.03.005>
- Ojeda, A. B. B. (2022, September 18). *Special education*. StatPearls. Retrieved February 16, Philip. L., & Bali, A. (2022). Teaching Special Education during the COVID-19 Pandemic: An Exploratory Study. *World Journal of English Language*, Vol. 12, No. 1; 2022. <https://doi.org/10.5430/wjel.v12n1p246>
- Schuck, R. K., & Lambert, R. (2020). “Am I Doing Enough?” Special Educators’ Experiences with Emergency Remote Teaching in Spring 2020. *Education Sciences*, 10(11), 320. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/educsci10110320>
- Yang, Y. and Cornelius, L.F. (2004). Students’ Perceptions towards the Quality of Online Education: A Qualitative Approach. *Annual Proceedings*, 1. <https://files.eric.ed.gov/fulltext/ED485012.pdf>
- Yazcayir, G., & Gurgur, H. (2021). Students with Special Needs in Digital Classrooms during the COVID-19 Pandemic in Turkey. *Pedagogical Research*, 6(1), em0088. <https://doi.org/10.29333/pr/9356>
- Yesil, A. F., Sencan, B., Omercioglu, E., & Özmert, E. (2022). The Impact of the COVID-19 Pandemic on Children with Special Needs: A Descriptive Study. *Clinical Pediatrics*, 61(2), 141–149. <https://doi.org/10.1177/00099228211050223>

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Chatterjee, A., Debnath, D., Chakraborty, S., Sarkar, S., Ganguly, S. & Mukherjee, S. (2024). Special Education During the Covid-19 Pandemic: Perspectives of Special Educators. *International Journal of Indian Psychology*, 12(2), 3882-3905. DIP:18.01.346.20241202, DOI:10.25215/1202.346