



RESEARCH PAPER

Effectiveness of Visual Lessons on YouTube during Lockdown in 2nd Wave of Covid -19 for Children with Intellectual Disabilities Studying in Child Welfare Center Perceived by their Parents

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ABSTRACT

Due to COVID-19, all academic activities have been moved online and schools have been suspended in 189 nations from April 2020. The current research aimed to determine the effectiveness of visual lessons on YouTube during lockdown 2nd wave of COVID-19 for children with intellectual disabilities studying in child welfare center as perceived by their parents. The population of this study consisted of parents of all children with IDD from the Child Welfare Center Punjab University Lahore. The sample size was 30 parents. A self-developed validated questionnaire formulated on the Likert type scale was administered. Data was impersonally collected after getting permission of school principal. According to the study the effectiveness of video lessons has been experienced by all children with IDD regardless of their age. All mothers and fathers with different qualifications are in favor of video lessons. Results showed that cognitive skills (mean=29.00) are more developed as compared to practical and behavioral skills in response to YouTube visual lessons. We recommend that several kinds of teaching methods and more interactive videos should be used so that children with intellectual disabilities do not get bored.

KEYWORDS Covid-19, CWC, Intellectual Disabilities, Parents, YouTube Video Lessons

Introduction

The emergence of online learning coincided with the shutdown of educational institutions because of the global expansion of COVID-19. According to Fazil, et al.2021 the cognitive, conceptual, and social skills of children with IDD were significantly poorly affected because of school closure during the 2nd wave of Covid -19. It raised the dire need to get alternative medium of instruction for this group of learners. The Child Welfare Centre (CWC) which was established on 13 January 2003 in the University of the Punjab for the children with intellectual disabilities in the residential area later the children with multiple disabilities were also from outside the university were admitted to the CWC. There are only five special education teachers' one speech therapist, one physio therapist and one music teacher and two vocational instructors. CWC is presently serving 42 students with different special needs. With the advent of Pandemic COVID-19 CWC was also closed along with all other educational institutions of the country. The Vice chancellor of the University of the Punjab assigned a challenging job to the principal and teachers of CWC to start video lessons on YouTube for children with intellectual disabilities during the lockdown in 2nd wave of COVID-19. Two senior most faculty members from institute of special education were asked to evaluate the technical quality of these video lessons before uploading on YouTube.

The principal teachers and experts completed this task and trained the parents of children with CWC about the interactive video lessons both live and prerecorded. It was first ever effort made by any of the special schools of the province Punjab.

Although it was new and difficult for teachers of CWC to shift teaching from traditional mode to online over the night, but the teachers did it with great zeal and zest. Parents also have many problems regarding the unavailability of smart phones, internet, and lack of skills for using digital materials and resources. Beside all this fact this video lessons sessions were continued for more than three months.

Researchers were very much keen to know about the effectiveness of these video lessons perceived by the parents. Therefore, a quantitative research was undertaken to know the parents views about the above mentioned topic.

Literature Review

Intellectual disabilities are referred to as "mental retardation". It is characterized by a deficiency in both cognitive ability and adaptive behavior. Intellectually disabled students fall behind peers in their grade in terms of academic skill development. These pupils struggle to pick up basic math concepts and reading skills. Additionally, these students' delayed language skills have an impact on their performance in science, writing, and other academic subjects (Taylor, Richards, & Brady, 2005).

Finding the best method to engage students, teach course material online, and administer evaluations was of interest to many educational institutions. Microsoft Teams, Google Meets, and Moodle were used by institutions in Pakistan as learning management systems and as tools for video conferencing. Other video conferencing tools for online learning include Zoom, Skype, Webinar and YouTube (Mukhtar, Javed, Arooj, & Sethi, 2020).

In order to satisfy the educational needs of the affected pupils, the pandemic led many schools around the world to adopt new instructional approaches and practices. In many nations, the entire educational system has been altered to put a greater emphasis on the learner than the teacher. In fact, flexible learning (Gordon 2014) made up for pupils' lack of physical presence at school throughout this pandemic. Adaptable learning is established on fresh and different methods of presenting educational materials that make use of technical advancements like digital gadgets and electronic platforms (Ryan and Tilbury 2013). E-learning, often known as technology-enhanced learning, is an illustration of adaptable learning approach (Cook et al. 2019). Though, digital learning (online learning) was utilized in this instance as a procedure to enhance students' distance learning. Distance learning thus took the place of traditional education in this pandemic, as many students were required to carry out their education online from their residences because attend school was not possible. For instance, the Ministry of Education in China shut down every school in the country and created an alternate program called "School's Out, But Class's on" to offer remote learning opportunities to all pupils (Zhou, et. al., 2020).

As a result of the COVID-19 pandemic, educational facilities for pupils with and without special needs were interrupted in numerous nations. This was done to prevent students from catching the illness and passing it on to their families. Unexpectedly, the pandemic brought attention to the difficulties faced by pupils with disabilities in the classroom. Students with disabilities are more likely to be excluded from vital services, such as a quality education, than their classmates without impairments, even before this pandemic (Bernard, et. al. 2020). Indeed, during disasters, crises, and emergencies like COVID-19, many of these students were left behind (Kuper, et al. 2020). But certain initiatives were undertaken to make available educational provisions for students with special needs during this crisis.

YouTube is one of the online learning resources that may be employed. Users of the well-known video-sharing service YouTube can upload, view, and share video clips without paying any fees. YouTube is one of the convenient ways for all. As it happens, YouTube fosters a favorable learning environment and increases students' interest in learning. Parents may still accompany their children while they are working because YouTube is

accessible anytime, anywhere. Teachers can design their channels in accordance with the pre-made study plan. The goal of using YouTube as a learning tool is to generate involvement of users along with pleasurable and dynamic educational conditions. A film that can help pupils better understand learning is offered on YouTube. Videos that combine multisensory components or moving descriptions may help the learners to understand the instructional media (Krishna, Sudhita, & Mahadewi, 2015; Naharir, Dantes, & Kusmariyatni, 2019; Yuliani, Antara, & Magta, 2017). The students can download and use the video content that available on YouTube to aid in their learning. Due to the audio-visual presentation of concepts and information, this video medium will enhance the readiness and involvement of pupils' in learning Muskania, Badariah, & Mansur, 2019; Novita, Sukmanasa, & Pratama, 2019; Yuniarni, Sari, & Atiq, 2020). Students' cognitive growth can be stimulated by watching instructional videos, which will increase their learning outcomes (Febriani, 2017; Purwanti, 2015; Sudiarta & Sandra, 2016). It is found that YouTube is a good source for improving language skills among learners of all ages (Widyantara & Rasna, 2020).

A latest study led by Syafiq, et. al. (2021) showed that YouTube videos have a significant positive role in developing and improving the oral language skills as well as grammatical structures, vocabulary, fluency, and content. According to Cakir (2006), the video content engages and inspires students and fosters a genuine, contextualized, and actual teaching-learning environment. The general education population has been the target of the majority of distance learning research. The effects of remote learning on students with special needs, let alone those who have intellectual disabilities, have received less attention in research. This is new territory for these students and their families. Even though some studies claim that remote learning programs are especially suited to serve the needs of students with impairments (Hashey & Stahl, 2014; Rose & Blomeyer, 2007), research in this area is scarce, and findings are mixed (Means, et. al., 2010).

Materials and Methods

The research was performed by employing a descriptive research approach. The population of this survey involved parents of all children with IDD from the Child Welfare Center, University of the Punjab in the Lahore. Child Welfare Center is under the managerial control of Institute of Special Education University of the Punjab new campus Lahore. It is in the premises of University of the Punjab. It was established in 2003. In the beginning it only caters the children with special needs particularly intellectual disabilities of PU faculty and staff, but later it renders its services for out siders as well. Out of 42 children 30 parents of ID children were selected for study by using purposive sampling technique. Both fathers and mothers residing in the premises of University of the Punjab and outside in Lahore belong to different educational and social economic background were the part of this research.

Research Instrument and Data Collection

A self-made questionnaire was used to collect the data. The questionnaire's Cronbach's Alpha score was .94, which indicates the instrument's reliability. The questionnaire was divided into two sections: one for demographic information and the other for 25 statements about the effectiveness of visual lessons on YouTube during lockdown as perceived by parents. The questionnaire was developed on a Likert 5-point scale. The questionnaire's options were coded as completely disagree (1), disagree (2), neutral (3), agree (4), completely agree (5). The researchers in person visited the Child Welfare Center to obtain data from parents. After data collection, results were analyzed and tabulated using SPSS. The descriptive and non-parametric statistical processes assisted the researchers in obtaining the results through the Statistical Package of Social Sciences (SPSS).

Results and Discussion

Table 1
Effect of visual lessons in developing the cognitive, behavioral, and practical skills

No.	Questions	Completely Disagree	disagree	Neutral	Agree	Completely Agree
Cognitive skills						
1	Through YouTube video lessons memory of children improve.	F 2 % 6.7	F 6 % 20.0	F %	F 18 % 60.0	F 4 % 13.3
2	Attention Span of intellectual disabled child maintain by watching YouTube visual lessons.	F 3 % 10.0	F 3 % 10.0	F 1 % 3.3	F 14 % 46.7	F 9 % 30.0
3	Learning process of children increases by watching YouTube visual lessons.	F 4 % 13.3	F 3 % 10.0	F 1 % 3.3	F 16 % 53.3	F 6 % 20.0
4	Through YouTube videos uniqueness build in child's personality.	F 5 % 16.7	F %	F 3 % 10.0	F 12 % 40.0	F %
5	YouTube videos remain useful in increasing the mental abilities of intellectual disabled child.	F 1 % 3.3	F 4 % 13.3	F 1 % 3.3	F 19 % 63.3	F 5 % 16.7
6	Confidence builds up in intellectual disable child by watching visual lessons.	F 3 % 10.0	F 3 % 10.0	F 1 % 3.3	F 16 % 53.3	F 7 % 23.3
7	YouTube videos made difficult concepts much easier.	F 4 % 13.3	F 1 % 3.3	F 2 % 6.7	F 18 % 60.0	F 5 % 16.7
8	Through YouTube video Reading abilities of children increased.	F 4 % 13.3	F 3 % 10.0	F 1 % 3.3	F 16 % 53.3	F 6 % 20.0
Social and emotional skills						
9	Child participated much in YouTube visual lessons.	F 3 % 10.0	F 1 % 3.3	F 3 % 10.0	F 19 % 63.3	F 4 % 13.3
10	Intellectual disable child start interaction with teacher through online learning.	F 1 % 3.3	F 3 % 10.0	F 2 % 6.7	F 16 % 53.3	F 8 % 26.7
11	YouTube lessons were more attracted for intellectual disabled child.	F %	F 5 % 16.7	F 4 % 13.3	F 13 % 43.3	F 8 % 26.7
12	Intellectual disable child Show more interest for watching visual lessons.	F 1 % 3.3	F 2 % 6.7	F 4 % 13.3	F 14 % 46.7	F 9 % 30.0
13	YouTube visual lessons were more cheerful for intellectual disabled child.	F 2 % 6.7	F 5 % 16.7	F 8 % 26.7	F 9 % 30.0	F 6 % 20.0
Behavioral & language Skills						
14	During YouTube lessons child was more active.	F 1 % 3.3	F 3 % 10.0	F 4 % 13.3	F 10 % 33.3	F 12 % 40.0
15	Mood of intellectual disabled child was pleasant by watching YouTube lessons.		F 7 % 23.3	F 1 % 3.3	F 18 % 60.0	F %
16	Due to usual usage of mobile positive change came in the habit of intellectual disabled child	F 1 % 3.3	F 5 % 16.7	F 4 % 13.3	F 10 % 33.3	F 7 % 23.3
17	Language of intellectual disabled child improved by watching YouTube visual lessons.	F 3 % 10.0	F 7 % 23.3	F 8 % 26.7	F 8 % 26.7	F 4 % 13.3

Practical skills						
18	Child start implementing practically the things that told in videos.	F 1 % 3.3	F 4 % 13.3	F 8 % 26.7	F 9 % 30.0	F 8 % 26.7
19	Intellectual disable child start usage of mobile by her/himself.	F 3 % 10.0	F 3 % 10.0	F 8 % 26.7	F 10 % 33.3	F 6 % 20.0
20	Due to daily use of mobile child learn to take out video according to lesson.	F 1 % 3.3	F 10 % 33.3	F 6 % 20.0	F 7 % 23.3	F 6 % 20.0
21	Intellectual disable child learns to Save video for later use.	F 4 % 13.3	F 7 % 23.3	F 4 % 13.3	F 7 % 23.3	F 8 % 26.7
22	During written work it was easier to write by Pausing the video.	F 3 % 10.0	F 12 % 40.0	F 6 % 20.0	F 4 % 13.3	F 5 % 16.7
23	Time was not wasted of child by using YouTube.	F 3 % 10.0	F 6 % 20.0	F 8 % 26.7	F 7 % 23.3	F 6 % 20.0
Negative effect						
24	Anxiety builds in child due to studying by same method daily.	F 3 % 10.0	F 11 % 36.7	F 6 % 20.0	F 4 % 13.3	F 6 % 20.0
25	Due to daily watching mobile child's eyesight effected.	F 6 % 20.0	F 6 % 20.0	F 4 % 13.3	F 4 % 13.3	F 10 % 33.3

Table 2
Difference between the perceptions of parents based on gender about the effectiveness of video lessons

Null hypothesis	Test	Sig.	Decision
The medians of total score are the same across categories of parent gender.	Independent-samples Median Test	.123	Retain the null Hypothesis.

Since the $P = 0.123$ indicates that the Null hypothesis is supported, both fathers and mothers have same views about the effectiveness of video lessons for their children with IDD.

Table 3
Association between the qualification of parents and the effectiveness of video lessons

Chi-square	value	df	Sig
Pearson Chi-square	77.500	75	.399

Since Pearson Chi-square value=77.500, $df = 75$ and $P = .399$ express that there is no significant association between the qualification of parents and the effectiveness of video lessons. All parents have same views about the effectiveness of video lessons.

Table 4
Association between the age of child and the effectiveness of video lessons

Value	df	Sig.
Pearson Chi-Square	325.250	.325

Since Pearson Chi-square value=325.250, $df = .325$ and $sig = .486$ express that there is no significant association between the age of child and the effectiveness of video lessons.

Table 5
Mean showing improvements in skills

Performance	Mean	Std. deviation
Cognitive skills	29.0000	7.29667
Behavioral & Language skills	10.6333	2.69717
Practical skills	19.4333	5.62435

Since the mean value of cognitive skills is 29.00, Practical skills is 19.43 and behavioral skills is 10.63 indicate that there is more improvement in cognition skills as compared to practical skills and behavioral& language skills because of visual lessons on YouTube during lockdown.

Findings

- There is no significant difference ($p = 0.123$) between the perceptions of parents based on their gender about the effectiveness of video lessons.
- There is no significant association (Pearson Chi-square value =77.500, $df = 75$, and $P = .399$) between the qualification of parents and the effectiveness of video lessons. All parents were satisfied with the video lessons for their children with IDD.
- There is no significant association (Pearson Chi-square value = 325.250, $df = .325$ and $P = .486$) between the age of a child and the effectiveness of video lessons. It is found that video lessons were equally effective for all age groups of children with IDD.
- The mean score of cognitive skills is 29.00, practical skills is 19.43, and behavioral skills is 10.63, indicating that there is improvement in cognition, practical, and behavioral skills as a result of video teaching lessons on YouTube during lockdown.
- The objectives are met that there is a positive effect of visual lessons on YouTube in developing the cognitive, behavioral, and practical skills of children with intellectual disabilities.

Discussion

The covid had a great impact on the education of children with intellectual disabilities. Due to school closings during the pandemic, education quality has suffered throughout the world. Due to their employment and household duties, parents in Pakistan found it challenging to manage their children's online learning. Mothers now had to work the new shift as indicated by research studies (Novianti & Garzia, 2020). Initially, mothers had trouble using technology, and Research demonstrates that parents had a similar upbringing. When a move to online occurred, there was a difficulty learning (Dong, Cao, & Li, 2020). (Dong, Cao, & Li, 2020). In Pakistan, support from educators and schools assisted in resolving this issue (Garbe et al., 2020).

The aim of this study was to explore effectiveness of visual lessons on YouTube during lockdown for children with intellectual disabilities studying in child welfare center perceived by their parents. This study found that YouTube visual lessons has positive effects in the development of cognitive, behavioral and practical skills in children with intellectual disabilities. Children has started using latest technology for improving their skills.

Conclusion

The result of the study concluded that there is improvement in cognition, practical and behavioral & language skills of children with IDD as a result of video teaching lessons on YouTube during lockdown in the 2nd wave of COVID-19. All parents agreed that YouTube videos made difficult concepts much easier and had enabled the intellectual disabled child to start usage of mobile by her/himself. Teachers of CWC were appreciated by the parents on making the YouTube visual lessons easier as compared to traditional teaching.

Recommendations

- Teachers of CWC are advised to continue the making of YouTube visual lessons for children with IDD to support the parents.
- Various kinds of interactive teaching methods should be used so that children with intellectual disabilities do not get bored.
- More interactive videos should be made to involve the learners.
- A similar study with larger sample by including more schools, should be conducted on this subject to have better, reliable and practical understanding of the phenomenon.

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