

# Parents' Perspective of Distant Learning for their Children with Disabilities during Covid19 Pandemic

**Basmah Fahad Alshahrani**  
King Khalid University, Saudi Arabia, Abha

## Abstract

The COVID-19 pandemic has had a significant influence on the worldwide educational system. Almost all educational systems around the world were forced to transfer their educational system from face to face education to distant education. The impact of such transformation was particularly clear among students with disabilities and their parents. Parents found themselves facing a new roles and responsibilities with educating their children with disabilities totally online. The main focus of this research is parents' perception of educating their children with disabilities in fully online learning environment as a result of school closure due to Covid19 pandemic in Saudi Arabia. Semi-structured interviews were conducted with 5 Saudi mothers whose children with disabilities are educated in an online learning environment. The interview centred on the following topics: parent's role, parental involvement, teaching and evaluation, school communication and assistance, and barriers to effective parents engagement. The main findings, which were established after analysing the semi-structured interviews, revealed that parents found themselves facing a big responsibilities and having a new role such as teaching their children with disabilities which used to be the special teachers' role. In the same time they seem to consider this experience as a chance that belt a stronger connection with school and they felt more involved in their children's education than ever.

**Keywords:** disabilities; distant education; parent perceptions; Covid19 pandemic; parent involvement

## 1. Introduction

The COVID-19 epidemic has had a significant influence on the worldwide educational system, particularly among students with disabilities. During the COVID-19 epidemic, about 1.57 billion children were home-schooled (Alsadoon & Turkestani, 2020). COVID-19 is an infectious illness caused by a recently identified coronavirus that may be passed from one person to another, according to the World Health Organization (FM & KN, 2021). Because of the virus quick spread and effect on human care and wellbeing systems throughout the globe, several nations have had to alter their education systems, at the very least temporarily suspending children from attending school. In the current educational year, Saudi Arabia is one of the nations that has agreed to implement distant education for all students including children with disabilities (FM & KN, 2021).

The Saudi Ministry of Education introduced the Madrasati e-learning platform on the 15<sup>th</sup> of August 2020, with the goal of allowing students to log in and attend their classes from the comfort of their own homes. On the Madrasati platform, a total of 5,020,088 male and female students were reached, together with 420,000 allocated instructors and 21,000 school directors.

Most learning and teaching methodologies were created for students to be physically present, therefore the educational system was not prepared for such a societal calamity. In such a situation, distant education teachers, especially those for children with disabilities, had no planning for a revised instructional design (Allen et al., 2014). In Saudi Arabia, more than 90% of students have been affected by the COVID-19 epidemic and have switched their study online. The shutdown of schools has had substantial economic and social consequences, with students with disabilities being one of the most impacted groups. The shift of classrooms into home-based distant education threatens the quality of education for children with disabilities (Ayas et al., 2020). Many hearing families of deaf children, for example, have insufficient sign language expertise, which has a detrimental impact on the quality of math, science, and literacy instructions (Alsadoon & Turkestani, 2020).

During the COVID-19 epidemic in schools, a study conducted by Ayas et al., (2020) looked at the obstacles of providing academic adjustments for children with disabilities. In this study, it was found that during online lessons at home, many children with disabilities have been unable to keep the essential instructional attention. Because children with disabilities belong to diverse groups, it is difficult to employ online learning as a single teaching approach for all of them. Furthermore, providing technical assistance to this set of students at home is tough (Ayas et al., 2020). At home, the physical care shown to each student at school cannot be duplicated, and accessibility concerns are widespread.

As pointed by Khalil et al., (2020), most Saudi parents were unfamiliar with online instructions for their children with disabilities. A key problem impeding advancement in the online educational system is a lack of effective preparation. Parents cannot assess the needs of children with disabilities in the classroom; educating children during distant education is difficult. Furthermore, some children with disabilities have additional needs and other serious health problems, making distance education difficult for instructors. Individual attention is also a challenge in distant education since students study in a group setting (Khalil et al., 2020).

Recently, in other contexts, parents of children with disabilities have come across challenges, needs and support necessary for their children. During this process it was found that parents has some difficulties in teaching their children with disabilities as online learning system was not entirely design for children with disabilities to handle. Parental role was required to be there for child support in teaching. But before this could be done 40% of the parents found it difficult to handle gadget technologies where studies were supposed to be

done. 45% of the parents found electronic gadgets expensive for their children. 60 % of the parents had lack of education for handling online education portal and found it difficult to help their children with disabilities to complete their education. In the end, parents were totally dependent on specialist teachers (Greer et al., 2014).

The current distant learning conditions imposed by authorities on student populations from several nations, including Saudi Arabia, during the coronavirus disease 2019 (COVID-19) have definitely underlined the need of parental engagement in children's homework. Since the start of the pandemic, practically all learning activities at all educational levels have been conducted entirely online at students' homes, which has most likely influenced how parents participate in their children's homework (Sari & Maningtyas, 2020). However, until today, this impact has gained little attention, hence the importance of this study.

## 1.1 Aim

The goal of this research is to discover the experience of parents of children with disabilities in educating their children through distant education system.

## 1.2 Research Questions

- What is the experience of parents of students with disabilities in educating their children in fully online environments?
- What are potential challenges or barriers as well as benefits associated with fully online learning for students with disabilities from parents perspectives?

## 2. Literature review

Many parents and instructors have been caught off guard by this abrupt transition, which has brought up some of the difficulties and challenges associated with greater parental participation when engaging and assisting their children in different levels and kinds of remote learning. In conventional educational systems, parental participation is an essential element in student progress (Oraif & Elyas, 2021).

Parental support has been shown to have a substantial impact on students' achievement in a virtual learning environment. Parents serve as an important connection between their children and their schools. In education, the necessity of a healthy and robust relationship between parents and other caregivers and instructors is well-recognised and investigated (Krishnan et al., 2020). However, in order to participate in an online educational environment, parents and instructors must now take on new and unexpected roles and responsibilities (Krishnan et al., 2020).

The COVID-19 virus pandemic has wreaked havoc on many parts of life, including education and learning.. This pandemic has affected local and international educational sector, as numerous educational institutions, such as schools and universities, have been forced to

convert to distant education temporarily due to Covid19. Due to this, parents involvement in educating their children with disabilities is leading to fears of losing one's whole education in the near future (Kritzer & Smith, 2020). Since several educational institutions in Saudi Arabia have abandoned the physical type of teaching as a standard. This makes the parental role critical as one of the most important components for distant educational needs of their children with disabilities. Parents have been critical in finding new strategies to cope with the crisis.

As a solution to the crisis, educational systems throughout the world are looking for new methods to educate children with disabilities. While several parents have embraced technology as a solution, with universities and schools working around the clock to improve online learning, upgrade teachers' digital skills, and develop new programmes, with many using mobile learning, virtual classrooms, digital collaboration, and classrooms in the cloud to support the teaching and learning process (Kritzer & Smith, 2020).

Recently, as a solution of the rapid growth of technological gadgets (smartphones, iPads, and so on), studies have shown that parents are unsure if screen technologies aid or hurt their children with disabilities (Pacheco et al., 2020). Children with disabilities and their parents also faced unanticipated obstacles and new responsibilities as a result of the rapid move to remote learning. As a result, there is a need to fill the vacuum in the literature by examining parents' views and their role on using e-learning as well as their preparation to manage the children with disabilities' radical transformation (Pattisapu et al., 2020).

Furthermore, due to differences in educational philosophies and culture, the abundance of current material may not represent the perspectives of the primary players from Saudi Arabia. Cultural norms may influence parents' acceptance and perceptions. As a result, there is an urgent need to explore Saudi parents' experience regarding their children's online learning during the time of COVID-19 as a critical issue in terms of location and time (Pattisapu et al., 2020). Therefore, the current research investigates areas like; the experience of parents in educating their children with disabilities completely online, how this has changed their traditional role as parents, what are the problems they faced, does distant education suit the requirements of their children, and how the communication between home and schools regarding the students been affected by totally distant learning?

### 3. Methodology/Approach

The research methodology is based on qualitative research approach using semi-structured interviews as main method for collecting the data.

### 3.1 Semi-structured interviews

Over the course of one month, the participating mothers were interviewed in semi-structured interviews, some interviews were over the phone whereas other were face to face. Mothers were asked to describe their experiences with their children being educated in a fully online learning environment, to explore modern education practises, to identify possible hurdles and advantages to completely online educational services for students with disabilities, and to learn about parents' roles in their children's online learning. Exploratory interviews were performed using an interview template with 6 open ended questions that inquired about their experiences in teaching their disabled children in online schools (Mann et al., 2020). Each interview last from 30-40 minutes.

### 3.2 Sample

The sample of this study contained 5 Saudi mothers of students with disabilities studying in fully online primary school. The procedure of conducting the interview was followed as follow; first, mothers were contacted in advanced and asked about their desire to be involved in the research and then obtained their acceptance and consent. After obtaining their consent, 3 mothers were interviewed face to face and 2 mothers were interviewed over the phone due to their personal circumstances.

### 3.3 Data analysis

The interview transcripts were analysed thematically following the six guiding steps in conducting thematic analysis outlined by (Braun & Clarke, 2013). Four themes were constructed on the basis of the interviews conducted with parents of children with disabilities studying in a fully online school. These themes are:

- a. The role of parent as a teacher.
- b. Enhanced communication between teacher and parent.
- c. Barriers hinder enrolment in fully online learning environment for parents as they work toward positive educational outcomes for their children.

The researcher followed a number of steps to ensure the credibility of the research findings, including: first, integrity, in which the researcher provided final interview transcripts to respondents and asked them to confirm that the transcripts accurately reflect their opinions in a process known as 'member checking.' Second, since the study entailed obtaining responses from participants in Arabic, the translational problem was given special attention. Given the gravity of the situation, expert translators were enlisted to assess the translation's accuracy. All of our translators are linguists with degrees from institutions in the United Kingdom. The translations were compared to each other, and although there was some disagreement at first, consensus was eventually reached. The general interpretation of the study findings

necessitated the translation of one Arabic transcript into English (Alkinani, 2021). Mothers who took part in this study are identified to as (M1- M2- M3- M4) to protect their identities.

## 4. Findings

The findings of the research have gone through thematic analysis which has core theme and sub-themes.

*Table 1: Core Theme and Sub-Themes Obtained from Qualitative Data*

Core Theme	Sub Theme
1. The Role of Parent as a Teacher.	a. Day-to-day responsibilities b. Online Learning Environment
2. Enhanced Communication between Teacher and Parent.	a. Face-to-Face Learning. b. Focus of Learning. c. More involvement with school d. Participation in IEP.
3. Barriers to Effective Parents engagement as they sought to support positive educational outcomes for their children.	a. Learning Outcomes.

### - Core theme 1: The role of parent as a teacher

Parents of children who were totally immersed in online learning saw themselves as both parents and teachers. While totally online learning implies more parent–teacher engagement, a parent's dedication to his or her child's academic achievement goes beyond communication. Parents have also said that their conventional involvement in their children's education has changed. In their child's online education, parents described themselves as a "teacher" or the "main" person. This job was described as novel and unrelated to regular face-to-face learning. As one parent said that; ‘in the online learning ... *I'm with my child 100% so I'd say I'm a lot more engaged...*’. (M4)

Parents said how some of their shifting duties included tasks they used to do as parents attempting to teach their children. Participants were unconcerned about their function; rather, they said that their role changed when their kid enrolled in the totally online school.

### - Sub-theme 1: Day-to-day responsibilities

Parents provided education, supported the kid, were accountable for sustaining the child's growth, reported progress, and incorporated the virtual teacher's instructional ideas and interventions. One mom divided her work with her children:

*'While in the online class, I am aware of my daughter's development and what the instructor expects of her; I instantly seek clarification if my daughter is having difficulty with anything, and they lead us through it' (M3)*

The function of parent as teacher was recognised as parents revealed their day-to-day duties, with instances of how the mother taught her kid, changed curriculum, and gave just-in-time assistance to diversify her child's education, for example, M4 mentioned; 'I am the mother and the teachers at the same time.'

### - **Sub theme 3: Online learning environment**

Despite the fact that parents stated that they performed the major role of teacher in their children's education, some expressed worry that the responsibilities of this position were too much for them to handle and had an impact on family relations. As one parent said:

*'Although online learning inspired me to be involved far more than face-to-face schooling, it is extremely time demanding since you must remain by the screen throughout the school day to ensure that the child does not miss any information and is engaged with the teacher.'* (M2)

Over all, one of the duties parents accepted for their child's successful online learning experience was that of parent-as-teacher. When their children were enrolled in online schools, parents were more involved than when their children were enrolled in traditional face to face education.

### - **Core theme 2: Enhanced communication between teacher and parent**

Although a multitude of factors contributed to their child's achievement, communicating with the instructor was crucial. Because all parents had previous face-to-face experiences with parent-teacher engagement and communication about their children, parent replies contextualised online communication in relation to their past conventional communication:

*'Although it is an online learning environment, I have more interaction with the teachers than I had in a typical face-to-face learning environment, because we used to only meet when there was a moms meeting at school, which happens once or twice a year.'* (M3).

### - **Sub theme 1: Face-to-face learning**

Furthermore, parents reported that online education provided easier access to their child's instructor, with flexible timings allowing for more frequent connection. Communications comprised e-mail and phone talks in addition to face-to-face connection: '...as with face-to-face learning, we [parents] have a WhatsApp group with the teacher and it is not restricted to what time of day or what day we may communicate' (M2).

When parents were questioned about their degree of involvement in their child's online learning experience, they frequently mentioned that it was more involved and communicative than prior face-to-face interactions.

### - **Sub theme no 2: Focus of learning**

Despite not being the actual instructor, parents were there for the most, if not all, of their child's teaching lessons. One mother pondered:

*'...when the live lesson starts, I'm there and probably focusing on the teacher more than my daughter to make sure I understand what the teacher is saying and what my daughter is expected to do, and I let her do it on her own, but she needs me most of the time due to her disabilities, so I'm right there very engaged with everything.'* (M1)

To summarise, one of the observed distinctions between fully online learning and face-to-face learning is that fully online learning allows for more parent–teacher communication. The frequency, amount, and style of communication described by parents were not the same as in a typical face-to-face environment.

- **Core theme 3: Barriers to effective parents engagement as they sought to support positive educational outcomes for their child**

When compared to face-to-face instruction, fully online learning requires a large time investment on the part of parents. The time necessary to support their child's education and general development shocked the participants, despite the fact that regular contact was considered as a beneficial factor.

Parents were not opposed to supporting their children's learning since they wanted to be involved. What startled parents was the amount of time spent on what they thought were standard teaching duties. Parents are committed to recognising that they were their child's primary educator: 'I am teacher for 5 hours a day' (M2). Another difficulty expressed by parents in this research was being working or having other kids to look after:

*'I have another two children who are all learning online at the same time, so juggling everyone and making sure they are all following their teachers is a full-time job.'* (M3)

- **Sub theme 1: Learning outcomes**

Parents were concerned about their children's unsatisfactory learning results, particularly in writing, and considered that face-to-face learning was superior in this area;

*'My daughter is having trouble in writing; I've done everything I can to help her, but I'm still not satisfied with her level. I believe she learn better at school because her teacher gives her more specific attention and more personalized instructions based on her shortcomings.'* (M4)

## 5. Discussion

The findings reveal that different mothers of children with disabilities had diverse reactions to the same situation. The majority of mothers and their replies show that 60 percent of children with disabilities embrace distance education. For the majority of children with disabilities, distance education has resulted in social isolation and a lack of physical movements, making the learning environment challenging (Khalil et al., 2020).

Children with disabilities had a favourable experience with distance education, however 40% of parents had the opposite experience. As a consequence, the majority of parents believe that their children will not suffer any difficulties as a result of their children's distance education.

The data demonstrate that parents contributed and participated to the best of their abilities, but that there were certain challenges they faced in their children's distance learning process. Learning outcomes, barriers to effective parent engagement as they sought to support positive educational outcomes for their children, focus learning, face-to-face learning, routine, the role of the parent as a teacher, the online learning environment, and teacher support were among the difficulties.

A report by Brazendale et al., (2017), certain children with disabilities suffer difficulties in distance education, owing a lack of expertise with technology and inadequate learning instruments. During classes on the platform, some students with disabilities were also distracted due to a lack of attention and the presence of other distractors such as other children voice, according to the findings. This is confirmed by findings of Mustakim et al., (2021) who reported that while digital education work well with some children with disabilities, it can be tough for children with specific difficulties such as ADHD. This can be further supported by a research by Pattisapu et al., (2020) that demonstrate the need of taking into account the characteristics of children in general, and children with disabilities in particular, when planning and building electronic platforms, as well as the requirement to comply to content accessibility standards.

Parents who had their children completely involved in online learning regarded themselves as both parents and teachers. Similar findings were reported in a study by Bubb & Jones (2020) who found that during online education parents play multiple roles as they; teach, motivate their children to learn, provide social and emotional support to the children when they face learning difficulties and in the same time they have their own jobs. This shows how parents now praised teachers' effort with their children, which they might not have appreciated before (Ewing et al., 2021).

Despite the fact that parents claimed to have a significant part in their children's education, some expressed concern that the obligations of this position were too much for them to bear and had a negative influence on family relationships. This could also be further worsened by the social and financial circumstances that affected people during the lockdown caused by COVID19 pandemic as reported by the mothers. This can be confirmed by Hafidz et al., (2020) who reported that parents who acquired electronic gadgets for their children with disabilities for the purpose of distance education encountered exorbitant costs as well as communication challenges with teachers and other students.

While completely online learning means more parent–teacher interaction, a parent's commitment to his or her child's academic success extends beyond communication (Mann et al., 2020). Parents provide education, supported the child, were responsible for the child's continued development, reported progress, and integrated the online teacher's instructional ideas and interventions. This can show the positive side of the issue which is getting parents more involved, thus become more aware of thier children's educational needs and how to fullfel them.

Another important issue raised in this research is that most parents agree that it is vital for their children to attend certain school courses during distant education, such as reading. From their perspective, online education makes it harder for their children to integrate and build abilities and develop skills in these topics. This can be explain by the fact that through distant

education, students individual differences might be given less attention due to distant between teachers and children (Abdullah, 2020).

This situation is more likely to be affected by parents level of education, some less educated parents are unable to educate their children at home. It is critical ,therefore, for schools to meet with parents on a regular basis to determine the most pressing academic issues that children with disabilities face and to discuss the best possible solutions, such as providing individual tutoring or allowing some students, especially those with low achievement, to attend certain classes at the school.

The findings point to potential assistance for children with disabilities and their parents in distant education. According to a research by Oraif & Elyas (2021) which is similar to the current issue present in this paper that first sort of assistance comes from the child's household, which includes supplying the required gadgets and setting up a peaceful study area.

A similar research by Abuhammad (2020) also shows that if their home environment is not set up to match their requirements, children with disabilities will not be able to study and profit from the platform. According to Abuhammad et al., (2020) schools provide the second most significant kind of assistance by effectively communicating with students and parents and consistently monitoring children' academic progress.

According to a survey by Astri, (2017), schools play a critical role in ensuring that all students learn well by offering assistance and creating trust with their families. Encouragement, support, and desire for continual learning are the most important supports that families need throughout remote learning (Astri, 2017).

Over all, based on the findings and in comparison with other research around the same issue, it is clear that parent's participation in the learning of children with disabilities become more critical in distant education scenario especially when face-to-face learning becomes difficult due to Covid19. While this put parents and teachers under pressure in one hand, it helped in; first, strengthening the relationship between parents and teachers. Second, getting parents more involved in their children education and therefore gaining deep awareness of their children way of learning.

## 6. Conclusion

The research draws to a conclusion to find out how parents felt about the impact of online learning on their disabled children. The following are the primary concerns of parents regarding online learning for their children with disabilities and challenges that were discovered from data collected from 5 mothers: 1) day-to-day responsibilities where parents were held accountable in growth of their children, 2) parents need a lot of teacher support in order to have children with disabilities complete their studies, and 3) in online learning environment it is essential that parents are made aware of the platform through which their children with disabilities will learn.

Parents who had their children completely involved in online learning regarded themselves as both parents and instructors. While completely online learning means more parent–teacher

interaction, a parent's commitment to his or her child's academic success extends beyond communication. Parents have also expressed a shift in their traditional engagement in their children's education.

The third and most significant conclusion of online learning for children with disabilities and learning disorders, as well as the challenges that parents face are: 1) communication with the teacher was vital, despite the fact that a variety of circumstances contributed to their child's success. All parents had prior face-to-face experiences with parent–teacher interaction and communication regarding their children. 2) Parent were more involved in distant learning method as compare to face-to-face learning of children with disabilities as it requires more effort from the teacher side. 3) during the distant learning phase it was found that parent had to focus on subject more than what the children are doing so that parents can know what their children have to do in their assignment.

In the end, it was found that barriers to effective parents engagement as they sought to support positive educational outcomes for their child were not opposed to assist their children's learning since they wanted to be involved. What startled parents was the amount of time spent on what they thought were standard teaching duties. This was one of the barriers that concerned parents. Also the fact that their children unsatisfactory result was a concern of parents and they preferred face-to-face teaching more over distant education.

## Acknowledgment

The author extends her appreciation to the Deanship of Scientific Research at King Khalid University for funding this work through Group Research Project under grant number (RGP. 1/290/42).

## References

- Abuhammad, S. (2020), “Barriers to distance learning during the COVID-19 outbreak: A qualitative review from parents’ perspective”, *Heliyon*, Elsevier, Vol. 6 No. 11, p. e05482.
- Abuhammad, S., Khabour, O.F. and Alzoubi, K.H. (2020), “Covid-19 contact-tracing technology: Acceptability and ethical issues of use”, *Patient Preference and Adherence*, Dove Medical Press Ltd, Vol. 14, pp. 1639–1647.
- Alkinani, E.A. (2021), “Acceptance and Effectiveness of Distance Learning in Public Education in Saudi Arabia During Covid19 Pandemic: Perspectives from Students, Teachers and Parents”, *IJCSNS International Journal of Computer Science and Network Security*, Vol. 21 No. 2, p. 54.
- Allen, T.E., Letteri, A., Choi, S.H. and Dang, D. (2014), “Early Visual Language Exposure and Emergent Literacy in Preschool Deaf Children: Findings From a National Longitudinal Study”, *American Annals of the Deaf*, Gallaudet University Press, Vol. 159 No. 4, pp. 346–358.

- Alsadoon, E. and Turkestani, M. (2020), “Virtual Classrooms for Hearing-impaired Students during the Coronavirus COVID-19 Pandemic”, *Revista Romaneasca Pentru Educatie Multidimensionala*, Asociatia LUMEN, Vol. 12 No. 1Sup2, pp. 01–08.
- Astri, L.Y. (2017), “Barrier factors that influence satisfaction of E-learning: A literature study”, *Advanced Science Letters*, American Scientific Publishers, Vol. 23 No. 4, pp. 3767–3771.
- Ayas, M., Ali Al Amadi, A.M.H., Khaled, D. and Alwaa, A.M. (2020), “Impact of COVID-19 on the access to hearing health care services for children with cochlear implants: a survey of parents”, *F1000Research 2020 9:690*, F1000 Research Limited, Vol. 9, p. 690.
- Braun, V. and Clarke, V. (2013), “Successful Qualitative Research: A Practical Guide for Beginners”, *Successful Qualitative Research a Practical Guide for Beginners*, SAGE Publications, London, p. 400pp.
- Brazendale, K., Beets, M.W., Weaver, R.G., Pate, R.R., Turner-McGrievy, G.M., Kaczynski, A.T., Chandler, J.L., *et al.* (2017), “Understanding differences between summer vs. school obesogenic behaviors of children: the structured days hypothesis”, *International Journal of Behavioral Nutrition and Physical Activity 2017 14:1*, BioMed Central, Vol. 14 No. 1, pp. 1–14.
- Bubb, S., & Jones, M. A. (2020). Learning from the COVID-19 home-schooling experience: Listening to pupils, parents/carers and teachers. *Improving schools*, 23(3), 209-222.
- Comanducci, R. (2020). School leadership in times of crisis. *Smart Brief Industry News*.
- Ewing, L. A., & Vu, H. Q. (2021). Navigating ‘Home Schooling’ during COVID-19: Australian public response on Twitter. *Media International Australia*, 178(1), 77-86.
- FM, A. and KN, A. (2021), “Distance Education for d/Deaf and Hard of Hearing Students during the COVID-19 Pandemic in Saudi Arabia: Challenges and Support”, *Research in Developmental Disabilities*, Res Dev Disabil, Vol. 117, available at:<https://doi.org/10.1016/J.RIDD.2021.104059>.
- Greer, D., Rowland, A.L. and Smith, S.J. (2014), “Critical Considerations for Teaching Students With Disabilities in Online Environments”:, <Http://Dx.Doi.Org/10.1177/0040059914528105>, SAGE Publications Sage CA: Los Angeles, CA, available at:<https://doi.org/10.1177/0040059914528105>.
- Hafidz, A., Muzakki, A., Anam, S., & Sholeh, M. (2020). Parental engagement in children's online learning during the COVID-19 pandemic. *International Joint Conference on Arts And Humanities (IJCAH 2020)*; pp. 1186– 1192). Atlantis Press.
- Khalil, R., Mansour, A.E., Fadda, W.A., Almisnid, K., Aldamegh, M., Al-Nafeesah, A., Alkhalifah, A., *et al.* (2020), “The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: A qualitative study exploring medical students’ perspectives”, *BMC Medical Education*, BioMed Central Ltd, Vol. 20 No. 1, available at:<https://doi.org/10.1186/S12909-020-02208-Z>.

- Krishnan, I.A., Mello, G. De, Kok, S.A., Saabdev Kumar Sabapathy, S.M., Ching, H.S., Kandasamy, P., Ramalingam, S., *et al.* (2020), “View of Challenges Faced by Hearing Impairment Students During COVID-19”, *Malaysian Journal of Social Sciences and Humanities*, Vol. 5 No. 8, pp. 106–116.
- Kritzer, K.L. and Smith, C.E. (2020), “Educating deaf and hard-of-hearing students during COVID-19: What parents need to know”, *Hearing Journal*, Lippincott Williams and Wilkins, Vol. 73 No. 8, p. 32.
- Mann, A., Schwabe, M., Fraser, P., Fülöp, G. and Ansah, G.A. (2020), “HOW THE COVID-19 PANDEMIC IS CHANGING EDUCATION: A PERSPECTIVE FROM SAUDI ARABIA How the Covid-19 pandemic is changing education A perspective from Saudi Arabia PUBE 2 | ACKNOWLEDGEMENTS”, *OECD*, Vol. 1 No. 1, pp. 1–48.
- Mukuka, A., Shumba, O. and Mulenga, H.M. (2021), “Students’ experiences with remote learning during the COVID-19 school closure: implications for mathematics education”, *Heliyon*, Elsevier Ltd, Vol. 7 No. 7.
- Mustakim, M., Trisnaningsih, T., & Adha, M. M. (2021). The Effectiveness of Online Collaborative Learning During Covid-19 Pandemic. In *Advances in Social Science, Education and Humanities Research, volume 513 4th Sriwijaya University Learning and Education International Conference (SULE-IC 2020)* (Vol. 513, pp. 256-262). Atlantis Press SARL.
- Oraif, I. and Elyas, T. (2021), “The Impact of COVID-19 on Learning: Investigating EFL Learners’ Engagement in Online Courses in Saudi Arabia”, *Education Sciences 2021, Vol. 11, Page 99*, Multidisciplinary Digital Publishing Institute, Vol. 11 No. 3, p. 99.
- Pacheco, L.F., Noll, M. and Mendonça, C.R. (2020), “Challenges in Teaching Human Anatomy to Students with Intellectual Disabilities During the Covid-19 Pandemic”, *Anatomical Sciences Education*, John Wiley & Sons, Ltd, Vol. 13 No. 5, pp. 556–557.
- Pattisapu, P., Evans, S.S., Noble, A.R., Norton, S.J., Ou, H.C., Sie, K.C.Y. and Horn, D.L. (2020), “Defining Essential Services for Deaf and Hard of Hearing Children during the COVID-19 Pandemic”:, <https://doi.org/10.1177/0194599820925058>, SAGE Publications Sage CA: Los Angeles, CA, Vol. 163 No. 1, pp. 91–93.
- Sari, D.K. and Maningtyas, R.T. (2020), “Parents’ Involvement in Distance Learning During the Covid-19 Pandemic”, *Advances in Social Science, Education and Humanities Research*, Atlantis Press, Vol. 487 No. 1, pp. 95–97.
- Ziadat, A.H. (2021), “Online learning effects on students with learning disabilities: Parents’ perspectives”, *Cypriot Journal of Educational Sciences*, Birlesik Dunya Yenilik Arastirma ve Yayıncılık Merkezi, Vol. 16 No. 2, pp. 759–776.