



Faculty of Education
Journal of Education



***The challenges of online learning for teachers of
children with intellectual disability in the
COVID19 pandemic: qualitative method***

BY

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Receipt date: 1 Desember 2020 - Date of acceptance: 29 Desember 2020

DOI: 10.12816/EDUSOHAG. 2021. 164347

Abstract

COVID 19 has raised a challenge for the education and learning environment of special children in Saudi Arabia, Northern Region. This paper aims to analyze all the challenges which have a significant impact on the teaching method for children with disability. The research was carried out on a qualitative design. Several stages of the investigation were carried out which included a detailed survey of literature and the special education environment in Saudi Arabia. Interviews were conducted with 15 teachers to learn about online learning and restriction imposed during the global pandemic. Sampling was carried out based on age, gender, and years of experience. The result showed that shutdown periods were more challenging for students as special education required a lead towards physical responses and the online mode was not suited in Saudi Arabia. It was found that the education infrastructure of the country also had a weak for educational professionals. The study showed that teacher inputs are essential in special education and online mode of education cannot satisfy the requirement of children with disabilities.

Keywords: *Challenge and Online Learning, Intellectual disability, COVID 19, Saudi Arabia, Qualitative, Teachers.*

تحديات التعليم الإلكتروني لمعلمي الاطفال ذوي الاعاقة الفكرية أثناء جائحة كورونا: دراسة نوعية

المقدمة:

أثارت جائحة كورونا COVID-19 تحديًا لبيئة التعلم والتعليم للأطفال من ذوي الإعاقة في المملكة العربية السعودية، المنطقة الشمالية. هدفت هذه الورقة إلى دراسة أغلب التحديات التي لها تأثير كبير على طريقة التدريس المقدمة للأطفال ذوي الإعاقة. تم إجراء البحث بطريقة التصميم النوعي (المقابلات الشخصية). تم إجراء عدة مراحل من التحقق شملت مساحًا تفصيليًا للأدب وبيئة التربية الخاصة في المملكة العربية السعودية. تم إجراء المقابلات مع ١٥ معلمًا للتعرف على تحديات التعلم عبر الإنترنت والقيود المفروضة أثناء الوباء العالمي. تم أخذ العينات على أساس العمر والجنس وسنوات الخبرة للمعلمين. وأظهرت النتيجة أن فترات الاغلاق كانت أكثر تحدياً للطلاب لأن التعليم الخاص يتطلب توجيهًا نحو الاستجابات الحركية بنفس المكان وأن الوضع عبر الإنترنت لم يكن مناسبًا. وجد أيضاً أن البنية التحتية التعليمية والخبرات في هذا المجال كانت ضعيفة للمهنيين التربويين. أظهرت الدراسة أن مدخلات المعلم ضرورية في التربية الخاصة وأن نمط التعليم عبر الإنترنت لا يمكن أن يلبي كل متطلبات الأطفال ذوي الاحتياجات الخاصة التعليمية.

الكلمات الافتتاحية: تحديات التعليم الإلكتروني، الاطفال ذوي الاعاقة الفكرية، جائحة كورونا، المعلمون، المنهج النوعي.

Introduction

For children with intellectual disability, the development and maintenance of regular routine is a critical element for effective learning (Harris, 2006). Consistent with this, teachers who teach such children have used various techniques to establish routine and familiarity with the learning environment for their students (Troia & Graham, 2002; Harris, 2006; de Wit et al., 2015). However, with the occurrence of the COVID19 pandemic, school systems from across the world experienced considerable disruption. At the beginning of the crisis, many school systems closed access to in-person classes and began to implement transitional protocols to online learning (UNESCO, 2020). This includes classrooms that cater to children with intellectual disability, effectively terminating the existing routine that students and teachers relied on to help ensure effective learning for these students. Following the end of the school year, school systems were provided with more time to plan for the succeeding year with the knowledge that the pandemic will continue to hinder face-to-face instruction (Terada, 2020). As such, many took efforts to establish fully online learning environments for students in succeeding school year. This includes providing teachers with necessary training with various aspects of online instruction, such as the use of various technologies and a mixture of synchronous and asynchronous teaching strategies (Terada, 2020). Amidst all of this, teachers who cater to students with intellectual disability are presented with the added challenge of re-establishing the necessary routine and familiarity with the learning environment for their students. This is the focus of this study. Taking the perspective of the teacher, this study embarks on the discovery of the challenges that they experienced in adapting to the new teaching and learning environment and helping their students with intellectual disabilities do the same. Two settings are considered and compared: the immediate transition to an online environment following the abrupt closure of schools and the refinement of the transition that occurred during the summer break and implemented in the current school year.

Children with Disability

Saudi Arabia had no specific facility for special children before 1958. Parents were responsible for children's education and the state was not interested to focus on special education of children. The system of Saudi Arabia represented a different policy for special education as compared to America and Europe. In the start, special education was delivered in a normal style. However, after some time the schools were separated from mainstream education and create a divergence with the international education system (Al-Mousa, 2010a).

In 1960, the first institute for special education was built in Riyadh, known as Al-Noor institute, for the blind children. Many other educational institutions were founded regarding children who had disabilities. Schools were founded for mentally retarded and deaf children. The main objective was to offer educational and rehabilitation services to children who had impairments and were not included in government support. It included all children with intellectual disability and cases of impaired hearing (Afeafe, 2000).

Government policy and focus on special education helped to gather specific attention in the educational sector of Saudi Arabia. The number of institutes started to increase in-country and a great deal of government focus was on children's education and rehabilitation programs. Moreover, the special education model was applied to public schools (Al-Mousa, 1999). Saudi Arabia adopted a non-conventional approach to implementing special education in mainstream schools.

The early decision taken by government of Saudi Arabia helped to modify the quality of special education imparted to people with severe and moderate disabilities (Alquraini, 2011). Saudi Arabia also showed full commitment to the UN convention which protected the interest of special children and needs in society. One of the main highlights for Saudi Arabia is based on the inclusion policy which helped to link special education in mainstream educational schools (Owusu-Bempah, 2012).

In Saudi Arabia, the placement of exceptional children falls under two categories. First category base on special education institutes which are designed to include student's initial levels of disabilities. The category included all students from mild and moderate disability (Al-Mousa, 2010a).

The second category shows students who have mild disabilities which can be included in regular school with small arrangements. It may include resource programs and follow up assistance from the teacher for the selected student (Al-Mousa, 2010a). Code of provision article 2 provides clear information about special education and needs in Saudi Arabia. According to the article, the government has the responsibility to guarantee an education to students and it covers all phases of education which can include either vocational or higher education.

Education Settings

The education setting is divided into classifications. Students which have a mild and moderate type of disability receive an education in a typical classroom which is known as source rooms. Moreover, student participates in an education curriculum with some accommodations. Separate classrooms remain valid for children who have mild and moderate type of cognitive disabilities because they cannot adjust to a normal environment. However, students are allowed to share time during recess and lunch periods for non-curricular activities. The school provides a special focus on curriculum which is different as compared to mainstream education and public schools. Students who show signs of disability, attend school from 6 years to 13 or 14 years and middle schools reach the age of 18. However many of the students have no access to vocational training after middle and elementary school (Al-Ajmi, 2006). The main purpose of the education center is to provide vocational training that would generate better employment skills (Ministry of Health Care, 2010). The challenge for employers is to create a major issue for general education settings.

Another classification is based on students who have severe disabilities. According to the education ministry of Saudi Arabia (2008), a major percentage, 96% of students have multiple kinds of disabilities and most of them are severe. The data was recorded for 2007-08. Students with severe disabilities normally remain in separate education environments which inhibit the chances of social communication. The special education centers provide food, financial aid, and residence to children. Families are also not allowed to meet the children as higher distances are present between schools and families permanent residence.

An important issue with disable students is the individual education program (IEP) which is modified for each curriculum of the school. The

IEP program often has lapses in terms of individual needs because it is designed based on the general syllabus. However, disable students need specific guidance for special education. Private institutes also lack the required professionals to develop the IEP program. It requires the need for a physical and occupational therapist in special schools who can identify the children's needs and develop communication with disabled students. Some public schools have services related to mild and moderate disability groups. The segregated setting for disabled students sometimes fails to justify the need of each individual and children are not included in the mainstream public. However many reasons are present for segregated education settings which can include insufficient training present in public schools. It is also often feared that disable students may harm or endanger other students in the normal population. A separate theory is present for special education and children with disabilities and it cannot be related to normal educational settings (Al-Faiz, 2006, p. 21).

COVID19 and its impact on Education

COVID19 is a highly infectious, respiratory disease that spread into a pandemic during the first quarter of 2020 (European Center for Disease Control). There have been about 35 million reported cases and over 1 million deaths from across 188 countries due to this disease (Johns Hopkins University). However, the impact of COVID19 extends well beyond the field of healthcare, as it has also led to the shutting down of various national economies and the closure of many social services, one of which is education. According to UNESCO (2020), 22 countries in across three continents have enforced closure of schools across all levels in early March as part of their response to slowing down the spread of COVID19, immediately impacting 290.5 million students. This rapidly increased to include more countries and by the end of the month, over 90% of students all over the world were out of class (UNESCO, 2020). Schleicher (2020) detailed the various impacts that these events had and continue to have on school systems across the world. First, there was immediate loss of instructional time during the abrupt school closures that happened during the first quarter of 2020 (Schleicher, 2020). School systems had to switch to digital delivery of content, and this had very variable outcomes in different countries, with some having sufficient resources to quickly adapt to the change while others struggled significantly and may have been unable to effectively deliver content to

the student body (Schleicher, 2020). More importantly, Schleicher (2020) discussed the challenges that faced school systems following the conclusion of the 2019-2020 school year. While some schools planned for reopening, many more planned to deliver content completely online for the succeeding school year. This presented a host of challenges, such as ensuring that students and teachers had sufficient technological equipment and internet access, providing effective training for teachers and orientation for students in using the new, fully online platform, and making various decisions in relation to synchronicity of content delivery, student feedback systems, and validity of student evaluations (Schleicher, 2020). Amidst all of this, emergent studies are showing that changes to students' daily activities and habits brought about by measures taken by school systems to protect against the spread of COVID19 are having significant impacts on their academic and mental well-being (Terada, 2020). According to studies reviewed by Terada (2020), there is an expected decline of as much as 34% in learning gains for students in reading and 56% in mathematics. This means that they expect students to learn much less in this school year than previous students in the same grade levels had learned in prior school years. It was also found that many students felt that they were receiving inadequate support from the school system to ensure that they are able to transition effectively in an online setting (Terada, 2020). In addition to this, Golberstein et al. (2020) found that the school closures and transition to online settings heavily impacted students who were relying on the school system to provide them with in-person mental healthcare services such as counseling services. The shift to a fully online system was also reported to itself have negative impacts on students' mental health as they struggle to adjust to the demands of this new system (Golberstein et al., 2020).

Teacher Development during COVID19 and Students with Intellectual Disabilities

Various studies emphasize the critical significance of sufficient teacher training and orientation in the midst of COVID19 and the start of the new school year (Crawford & Butler-Henderson, 2020; Terada, 2020; Allen et al., 2020; Kim, 2020). As the lead in a classroom, the teacher is responsible for setting the tone of the environment, and must appear confident and ready to take charge of the class (Kim, 2020). However,

many teachers are as new to the virtual learning setting as their students, which is at the core of the challenges that emerged from in-person classrooms closing due to COVID19 (Kim, 2020; Allen et al., 2020). Moreover, the training that teachers have received until recently have all focused on in-person environments (Allen et al., 2020). As such, many teachers across the world have been given the responsibility of learning a host of new knowledge and skills related to teaching effectively in virtual environments within a short period of time (Allen et al., 2020).

These issues become even more challenging when placed in the context of teachers who teach students with intellectual disabilities. Students with intellectual disabilities have very different instructional needs from those who do not have such disabilities and while it is possible to cater to those students in a mixed classroom environment, a significant part of what makes this work is the fact that the teacher is there and is able to observe such students and how they react to content as it is delivered (Harris, 2006). Harris (2006) discussed the importance of teachers' reactions to how students with intellectual disabilities respond to learning material. It is critical for teachers to be able to spot when the student has a reaction, whether positive or negative, and immediately address the situation by either reinforcing positive reactions or mitigating negative ones (Harris, 2006). In the context of virtual learning, being able to spot such reactions cannot be expected to be as straightforward. This is exacerbated by the issue of some intellectual disabilities keeping students from being able to maintain concentration on a learning activity (Harris, 2006). In a face-to-face environment, the teacher can address this issue by shifting the students' attention on another task. While this can also be done in a virtual setting, training on the use of various technologies are necessary for the teacher to be able to implement it effectively. These challenges show that the shift to a virtual setting has a significant impact particularly on the dynamics of teaching for those who teach students with intellectual disabilities. As such, it is worthwhile to examine the lived experiences of those teachers which is the gap in literature that this study addresses.

Methodology

Design

This study employs a qualitative design based on the phenomenological approach. In a phenomenological study, the focus of the study is to examine the experiences of a population with a specific phenomenon (Groenewald, 2004; Farina, 2014). The goal of a phenomenological study is to capture a complete picture of how different people in that population experience the phenomenon; how they see and cope with challenges brought about by it and how they feel it impacts specific aspects of their lives. In particular, the phenomenon of interest in this study is the shift to virtual learning settings brought about by COVID-19 while the population of interest are teachers who teach students with intellectual disabilities. This completely frames the context of this research.

Sampling and Recruitment

As part of the qualitative design, the focus of sampling is not on obtaining a statistically representative subset of the population of interest, but to obtain a practically representative subset, including people with potentially different experiences in order to capture a complete range of the available data (Creswell & Creswell, 2018). As such, purposive sampling is selected for this study. Through the Ministry of Education, registered teachers who teach students with intellectual disabilities are identified. Invitations to participate in the study are sent to these teachers. It is ensured that teachers with potential diverse array of experiences are invited based on years teaching, gender, age, type of school where they teach, and region. Teachers who agree to participate will be contacted to arrange a schedule for data gathering via virtual interview.

Data Collection

In line with a qualitative design, a semi-structured interview is selected as the data gathering method. In a semi-structured interview, core questions are formulated which serve as the major branches of discussion in the interview (Creswell & Creswell, 2018). After each core question, follow-up questions may be asked in order to clarify, expound upon, or branch out from the interviewee's initial response. Once a core

question has been explored sufficiently, the interviewer can proceed to asking the next core question and repeating the process.

The core questions for this study were formulated as follows:

- 1.) What were your experiences with fulfilling your teaching responsibilities after schools shut down last March?
- 2.) What were your experiences in preparing for teaching during the summer for the next school year?
- 3.) What are your experiences in teaching during this school year?
- 4.) What specific issues do you face in teaching students with intellectual disabilities in an online setting?
- 5.) How do you address these issues?
- 6.) What do you believe are things that can be done to improve the status quo?
- 7.) What is your recommendation?

Results and Discussion

A total of 15 participants were recruited for the study. The participants come from 7 different public schools across the Northern region in Saudi Arabia. Ten of the participants are male and 5 are female. Their teaching experiences range from less than 2 years to over 20 years. This shows the diversity of the sample selected for the study. Reference to statements made by participants during their interviews are labeled numerically (P1 to P15). See the table below:

| Participants | Gender | Age | Years of experience |
|--------------|--------|-----|---------------------|
| P1 | M | 31 | 8 |
| P2 | M | 37 | 14 |
| P3 | F | 26 | 3 |
| P4 | M | 41 | 18 |
| P5 | M | 33 | 10 |
| P6 | M | 33 | 10 |
| P7 | M | 48 | 25 |
| P8 | F | 35 | 12 |
| P9 | F | 27 | 4 |
| P10 | M | 30 | 7 |
| P11 | M | 35 | 12 |
| P12 | F | 33 | 10 |
| P13 | M | 26 | 3 |
| P14 | F | 29 | 6 |
| P15 | M | 35 | 12 |

Experiences during the shutdown

All of the participants agreed that the shutdown last March was “challenging.” This is reflected by statements such as:

“It was a very difficult time.” P3

“Tough, that’s one word to describe it.” P11

“I don’t think I’ve ever experienced anything as difficult in my very long career.” P7

Another theme that was drawn to add better context to why the phenomenon was challenging was “unexpected.” Most of the participants expressed that what made the situation so difficult was that they did not think that it would actually happen that the country would shutdown the public school system and push everything online.

“Who could have known that they would do it? One day, everything was fine and the next, everything was not.” P1

“I remember the day that we were told what was going to happen. I thought to myself: what do I do now?” P7

“Maybe if everything was not so sudden, we could have done a much better job.” P2

“If they said during December than we would be doing this in March, then I think by March it would have been much easier. However, that’s not what happened.” P11

In terms of what they were doing during the shutdown, the major theme was unsurprisingly, “learning to do virtual learning.” While all of the participants have experience with computers and using the internet and at least some have engaged in virtual learning either as a student or as a teacher, the general perspective was that they had much to learn about actually running a virtual classroom on a regular basis.

“I struggled with everything. From setting up my workspace to figuring out how all of the features on our blackboard worked.” P5

“It was difficult. I was able to manage but there was so many things to learn in so little time, and I had to make sure to learn it quickly so I can then help my students and their parents with it.” P12

“Even at my age, I consider myself to be good with computers. However, there is a big difference between knowing how to use a computer and working fulltime on a computer. I was not prepared for the latter.” P8.

Preparing for the next school year

With regard to preparing for the succeeding school year following the closure, the participants generally discussed how considerable steps were taken by their respective schools in order to ensure that they were better equipped to handle the new school year. One dominant theme that was identified was “training.”

“We had to undergo a number of trainings. All of them necessary.”
P3

“We did a lot of things during the summer to get us ready for the next year.” P1

“I think I was attending training program after training program throughout the vacation. It did not seem like a vacation at all” P15

In addition, a minor theme identified was “independent study.” At least some of the participants decided to augment the training they were being provided with more effort.

“There were trainings, but I also went and practiced the new environment myself. I asked my kids to be my ‘students’ and they would be in one room I would be in another, and I would hold a short class for them.” P8

“More than the trainings, I would read a lot about what to expect in a virtual class, how to do it properly. I watched videos of other people doing it and I learned more from those as well.” P13.

“ We need extra training focusing on how to deal with these programs for the student with Intellectual disabilities,” P6, P9 and P10.

Experiences during the current school year

For the ongoing school year, a dominant theme that was identified from the responses was “better prepared.” A large majority of the participants expressed that they feel ready to handle a virtual teaching environment and have received enough preparation and orientation on it.

“It is much better now than before. I feel more in control; I can give my students more” P7

“Things are going smoothly. I know what to do now and so I am also able to let me students know what to do accurately” P2

Another important issue that came up was how the teachers needed to split their attention between preparing online materials and meeting their students for 2 hours a week in person. With regard to this, one theme that emerged was “time consuming”

“While we are mostly home now, it actually feels like there is much more to do. I have to prepare my online materials, but I also have to go to class. So, it seems harder, but I think I can do it.” P4

“Definitely busier now than before. What I need to do when I meet them in person is more or less the same as before, but now there are all these online things that I have to do as well. Sometimes I do feel overwhelmed” P14

Another concern that came up is with regard to the virus itself. Some participants expressed concern that while children are less affected by the virus, they can still be carriers of it and while the schools have implemented means to help ensure safety while in-person classes are ongoing, one theme that was expressed by the participants was “concern for safety.” However, at the same time, participants also expressed “dedication to the profession” as a theme, indicating that they are willing to continue with the in-person meetings despite the perceived risk.

“I’m not a doctor so I don’t know for sure, but I do think about it. Sometimes I feel concerned, but I have a job to do and I will do that job.” P8

“I’m old so I know I am vulnerable, but I am also a teacher and it is what makes me, me. So I will continue teaching them.” P7.

Conclusion

This study sought to explore the challenges experienced by teachers of children with intellectual disabilities during the COVID19 pandemic. Using a phenomenological qualitative design, the study examined three different stages of the phenomenon. These were during the time when the schools were shutdown, the succeeding summer break when the schools started preparing for the new school year in light of the restrictions imposed due to the pandemic, and during the current school year when virtual learning environments were implemented. From interviews conducted with 15 teachers, it was found that the most challenging period was during the shutdown; it was a time when the teachers felt underprepared, and had to struggle against the dual-issue of learning how to use virtual education technology and how to be able to properly convey this learning to their students. However, during the summer break, teachers reported embarking on various training and orientation that they believe were critical in adequately preparing them for the new school year. Their respective schools took the necessary effort to ensure

that both the teachers' and their students' needs to can properly accommodated and teachers would be ready to teach in mostly online environments. This is also evident in the teachers' inputs about the current school year. While the challenge of additional workload and concerns about the pandemic still exist, teachers feel that they are much better equipped to serve their students' needs, and expressed renewed dedication to their vocation. The study recommends that the teachers should have extra training to deal with their student with Intellectual Disabilities.

References

- Afeafe, M. (2000). Special education in Saudi Arabia. Retrieved October 1, 2020 from <http://www.khayma.com/education-technology/PrvEducation3.htm> .
- Al-Ajmi, N. S. (2006). The kingdom of Saudi Arabia: Administrators' and special education teachers' perceptions regarding the use of functional behavior assessments for students with mental retardation (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. AAT 3222888).
- Al-Faiz, H. S. (2006). Attitudes of elementary school teachers in Riyadh, Saudi Arabia toward the inclusion of children with autism in public education (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI NO. AAT 3262967).
- Allen, J., Rowan, L., and Singh, P. (2020). Teaching and teacher education in the time of COVID-19. *Asia-Pacific Journal of Teacher Education*, 233-236.
- Al-Mousa, N. (1999). Special Education in the Ministry of Education on the Occasion of the Centennial Anniversary for Founding the Kingdom of Saudi Arabia. Riyadh, Saudi Arabia: Ministry of Education.
- Al-Mousa, N. A. (1999). Development process of special education in Saudi Arabia. Riyadh: Directorate General of Special Education in Saudi Arabia.
- Al-Mousa, N. (2010a). The experience of the Kingdom of Saudi Arabia in mainstreaming students with special educational needs in public schools: A success story. The Arab Bureau of Education for the Gulf States, Saudi Arabia: Riyadh.
- Al-Mousa, N. A. (2010b). The Experience of the Kingdom of Saudi Arabia in Mainstreaming Students with Special Educational Needs in Public Schools, Riyadh, The Arab Bureau of Education for the Gulf States.
- Alnahdi, G. H. (2014). Special Education Programs for Students with Intellectual Disability in Saudi Arabia: Issues and Recommendations. *Journal of the International Association of Special Education*, 15.
- Alquraini, T. (2011). Special Education in Saudi Arabia: Challenges, Perspectives, Future Possibilities. *International Journal of Special Education*, 26, 149-159.
- Al-Rubiyea, A. I. (2010). Children with Special Needs in the Kingdom of Saudi Arabia: Their Needs and Rights, University of Leicester.
- Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *Journal of Special Education*, 34(4), 203-213.

- Cook, B. G. (2004). Inclusive teacher' attitudes toward their students with disabilities: A replication and extension. *The Elementary School Journal*, 104(4), 307-32.
- Crawford, J., and Butler-Henderson, K. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning and Teaching*, 3 (1): 9–28.
- Creswell, J., and Creswell, D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- de Wit, J., Dozeman, E., Ruwaard, J., Alblas, J., and Riper, H. (2015). Web-based support for daily functioning of people with mild intellectual disabilities or chronic psychiatric disorders: A feasibility study in routine practice. *Internet Interventions*, 2(2): 161-168.
- European Center for Disease Control (2020). Q & A on COVID-19: Basic facts. Retrieved October 5, 2020 from: <https://www.ecdc.europa.eu/en/covid-19/facts/questions-answers-basic-facts>.
- Farina, G. (2014) Some reflections on the phenomenological method. *Dialogues in Philosophy, Mental and Neuro Sciences*, 7(2):50-62.
- Golberstein E., Wen ,H., and Miller, B. (2020). Coronavirus Disease 2019 (COVID-19) and Mental Health for Children and Adolescents. *JAMA Pediatrics*, 174(9):819–820.
- Groenewald, T. (2004). A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods*, 3(1): 42-55.
- Harris, J. (2006). *Intellectual Disability: Understanding Its Development, Causes, Classification, Evaluation, and Treatment*. Oxford University Press, USA.
- Johns Hopkins University. (2020). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University. Retrieved October 5, 2020 from: <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>.
- Kim, J. (2020). Learning and Teaching Online During Covid-19: Experiences of Student Teachers in an Early Childhood Education Practicum. *International Journal of Early Childhood*, 52, 145–158.
- Owusu-Bempah, K. (2012). *Children with Special Needs in the Kingdom of Saudi Arabia: Their Needs and Rights*. University of Leicester.
- Schleicher, E. (2020) *The Impact of Covid-19 on Education Insights from Education at a Glance 2020*. OECD Publication.
- Spitler, R. H. (2017). *Blurry vision: institutional impediments to reform in Saudi Arabia*. Monterey, California: Naval Postgraduate School.

- Terada, Y. (2020). Covid-19's Impact on Students' Academic and Mental Well-Being. Retrieved October 3, 2020 from: <https://www.edutopia.org/article/covid-19s-impact-students-academic-and-mental-well-being>.
- Troia, G., and Graham, S. (2002). The Effectiveness of a Highly Explicit, Teacher-Directed Strategy Instruction Routine: Changing the Writing Performance of Students with Learning Disabilities. *Journal of Learning Disabilities*, 35(4): 290-305.
- UNESCO (2020). 290 million students out of school due to COVID-19: UNESCO releases first global numbers and mobilizes response. Retrieved October 2, 2020 from: <https://web.archive.org/web/20200312190142/https://en.unesco.org/news/290-million-students-out-school-due-covid-19-unesco-releases-first-global-numbers-and-mobilizes>.