

Challenges, Opportunities, and Teaching Strategies in Online English learning for Children with Autism Spectrum Disorder (ASD) during COVID-19 Pandemic

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Abstract

This study uses qualitative design with English teacher and parent of ASD student as the subjects, using interview and observation to collect data with the aims to explore the challenges, opportunities, and discover the teaching strategies used by the teacher and parent in online English learning for children with ASD during the COVID-19 pandemic era. The result shows that in Online Learning implementation 1a) Teacher faced challenges in the need to adapt to online format, the lack of face-to-face interaction, digital divide, self-discipline and motivation, lack of focus and time management problem, 1b) Parent faced challenges in all five points mentioned previously as well as student's feelings of alienation and disconnection, also overload screen time and digital content, 2a) Opportunities gained by teacher are access to a wide array of online resources, flexibility in scheduling and pace of learning, enhance student's engagement, 2b) Opportunity gained by parent is the flexibility in scheduling and pace of learning, 3a) Teaching strategies used by teacher are predictable sequence of activities, visual schedules, routines with flexibility, work/activity systems, and visually structured activities, and 3b) Teaching strategies used by parent are organization of the physical environment, routines with flexibility, and visually structured activity. The study uses TEACCH's Structured Teaching Strategy approach to examine visual aids in teaching ASD students, suggesting future research on broader theories and interventions for improved online learning implementation for ASD students, particularly in English language learning.

Keywords: Challenges, Opportunities, Teaching Strategies, Autism Spectrum Disorder, Online English Learning, COVID-19 Pandemic

1. Introduction

The Corona Virus was first found in December 2019 in Wuhan, China. It has spread globally and affecting almost every country in almost every aspect of life. Lockdown and stay-at-home methods have been implemented, which has a massive impact on teaching and learning process since there is restriction to conduct face-to-face teaching and learning activities at school and university. Teachers tried figuring out another way to deliver knowledge to students, to overcome this obstacle in teaching and learning process especially to students with Autism Spectrum Disorder (hereafter, ASD).

Hodges, H., Fealko, C., & Soares, N. (2020) defined ASD as a neurodevelopmental disorder marked by social communication difficulties as well as limited interests and repetitive behavioral patterns. Communication difficulty, social interaction impairment, atypical behavior and interest, attentional difficulties, cognitive deficits, unexpected responses to sensory stimuli, and anxiety are some of the prevalent features of students with ASD (Saskatchewan Education, 1999). This, of course, requires additional action

involving the teacher's instructional strategies as well as the assistance of the closest family in coping with this issue.

Although the government has established special schools to provide proper education for children with special needs, the COVID-19 outbreak has made education even more difficult due to numerous obstacles in the distance learning process, such as unstable internet networks and disparities in technological facilities among students and teachers.

Based on the current phenomenon that has been explained above which has become a great concern to a lot of people including the researcher, therefore the researcher decided to conduct a study on the challenges, opportunities and teaching strategies used in online English learning to children with ASD during COVID-19 pandemic era.

2. Literature Review

According to Diagnostic and Statistical Manual of Mental Disorders—5th edition (DSM-5), Autism Spectrum Disorder (ASD) is a developmental disability characterized by persistent impairments in social interaction and the presence of restricted, repetitive patterns of behaviors, interests, or activities. Those diagnostic characteristics have the potential to hinder the implementation of online learning for students with ASD.

Hiếu et al. (2022) defined online learning as a type of alternative education that takes place over the internet for students who are unable to attend face-to-face educational programs due to distance or time constraints. Even though it has been around since 1960, the implementation of online learning reached its peak when it was required during the COVID-19 pandemic. This necessitates an abrupt shift from face-to-face learning to online learning, posing numerous challenges and opportunities for teachers.

Raja et al. (2020) refer challenges as the difficulties or obstacles that need to be overcome in order to achieve a goal or complete a task. The term "challenges" in the context of education can refer to a wide range of problems that must be resolved in order to raise the standard of education (Barandica, 2017). Opportunities can be defined as good conditions or situations that have the potential to produce favorable results (Prince et al., 2021).

The sudden shifts may confront teachers with challenges in teaching, particularly to students with Autism Spectrum Disorder, necessitating the adoption of specific teaching strategies to adapt to the digital environment.

According to the background of the study above, the researcher formulates the following research questions:

1. What are the challenges in the online English learning for students with Autism Spectrum Disorder (ASD) during COVID-19 pandemic?
2. What are the opportunities in the online English learning for students with Autism Spectrum Disorder (ASD) during COVID-19 pandemic?
3. What strategies did the teacher and parent at SLBN Pembina use in the online English learning for students with Autism Spectrum Disorder (ASD) during COVID-19 pandemic?

3. Methods

The design used in this study was a qualitative research. According to Creswell (2014), qualitative research is a method of examining and comprehending the meaning that individuals or groups attach to a social or human issue.

This study employs a mixed-methods sampling strategy, with the researcher using purposive sampling for the English teacher with criteria such as teaching inclusive classes with ASD learners only during the COVID-19 pandemic, and archiving the online learning activity in video recordings, and using random sampling for the parent of ASD learners, selecting one out of six parents of children who were taking online classes at SLBN Pembina East Kalimantan Province during the COVID-19 pandemic.

Interview protocol and observation form were used as the instruments in this study. The researcher then analyzed the data using qualitative data analysis by Miles and Huberman (2014) which consists of three concurrent flows of activity; data condensation, data display, and conclusion drawing.

4. Result and Discussion

1. Challenges in Online English Learning

The results of this study were taken from the data obtained by interviews and observations. This study found that one of the challenges faced by the teacher was the need to adapt routines and the way to delivered learning to children with ASD in an all-digital environment during the COVID-19 pandemic, especially because of the adaptations were required in such a sudden manner due to the unpredictable situation of the outbreak which resulted teacher felt overwhelmed to prepare themselves for the situation. Additionally, the sudden shift to online learning disrupts established routines. Children with ASD thrive on routine and predictability, and the lack of physical presence of teachers and classmates may make it harder for them to adjust. Similar case was also found in study conducted by Abhishikta & Shiplu (2022) about Adaptation of Technology Driven Methods of Teaching-Learning Practices. In this study, stated that although online teaching and learning is entirely reliant on technology and the internet, there are a lot of teachers who are not highly proficient in technology. Teachers were not adequately trained for the sudden switch to an online format.

Another challenge was the lack of face-to-face interaction during the online learning implementation which resulted in inability to directly monitor students' learning. Furthermore, the parent found that online learning implementation was bothersome and less effective for it slows down the learning progress of the child if compared to face-to-face learning. Contrary to those findings, study conducted by García-Castelán et al. (2021) found that student performance remained equal in the online learning compared to the face-to-face learning, and the teacher's attempts in the online learning to introduce active learning activities through unique apps and simulations were found as outstanding.

In terms of digital divide, which might be the most significant challenge in online learning implementation, teacher stated that he was considering how parent with multiple children could cope with conflicting learning schedules amongst their children. On that matter, the parent claimed that she has her own strategy in overcoming the challenge which was by managing time and setting priorities. According to a study by Ricker et al. (2021)

that measured the effect of parental involvement specifically on mathematics achievement using data from three virtual schools' Learning Management Systems, parental involvement had a slight but positive effect on students' performance in mathematics throughout elementary, middle, and high school. These findings imply that parental involvement is equally important in virtual schools as it is in traditional settings, especially given the enhanced position of the parent. Besides, teacher also stated that insufficiency of internet data for educational purposes was also found to be challenging the implementation of online learning. A study by Ilias et al. (2020) also outlined unstable internet connections and insufficient data capacity as a part of the challenges in implementing online learning found among university students in Malaysia during COVID-19 pandemic.

Due to their reliance on mood, this study revealed that students with ASD had difficulty maintaining self-discipline and motivation. This is particularly significant when there is an abrupt shift from face-to-face to online learning, which highlights their lack of self-regulation at home. Bondarenko et al. (2021) conducted a study during the COVID-19 pandemic which found that 58.2% of medical students reported a decrease in the level of knowledge acquired remotely, and 57.1% of them indicated that their mood had worsened. Study by Wang et al. (2023), which explored the relationship between learning motivation and online learning performance, found that learning motivation has a positive effect on online learning performance.

This study also revealed that problem with time management in teacher during online learning implementation has found to be affected by student's poor self-regulation. A study by Yu et al. (2022) emphasized the importance of self-regulation and motivation in influencing students' satisfaction with online learning, suggesting that interventions targeting both teachers and students are needed to improve students' online learning satisfaction. Furthermore, Rice & Carter (2016) stated that teachers play a crucial role in promoting self-regulation in online learning environments, particularly for students with disabilities, although there are challenges in effectively providing self-regulation strategies in fully online learning settings. Therefore, addressing students' self-regulation skills and providing support for teachers to promote self-regulation are essential in the context of online learning.

Additionally, children with ASD are prone to feelings of alienation and disconnection during online learning, as they often struggle with communication and the online learning environment exacerbates these challenges. Non-verbal cues and social nuances, which are important for communication, are more difficult to interpret through a screen. The limited social interaction in online learning further compounds the issue. Children with ASD may struggle to engage in virtual conversations or collaborative activities, and the absence of physical contact can contribute to students feeling anxious, overwhelmed, isolated, and lonely during online learning (Bakkialakshmi & Sudalaimuthu, 2022).

Lastly, overloading screen time and digital content can pose significant challenges for students with autism in the context of online learning. This study reveals that parent reported the student as having overload screen time by playing too much mobile game in the time of online learning implementation, while individuals with ASD possess some of diagnostic traits such as inflexible adherence to routines, repeated patterns of behavior, excessively limited or perseverative interests or activities, and strong connection to, or preoccupation with items (American Psychiatric Association, 2022). These features may make it challenging for children with ASD to surrender interest in screen time, which could impacts their development especially in online learning implementation.

2. Opportunities in Online English Learning

The implementation of online learning has reportedly encouraged the teacher in exploring new ways of accessing learning resources. In this study, the teacher stated that he made videos as learning material, also used YouTube as a source of alternative learning material to assist his teaching. According to study by Meisani (2021), nearly all of the 178 respondents utilized and advantaged from online materials obtained from YouTube and other online platforms. This supports evidence for e-learning resources as teaching materials for overcoming the shortage of teaching guidelines and materials in English for Young Learners (EYL) classes.

In terms of flexibility gained during online learning implementation, both teacher and parent expressed similar impression. Both of them experienced convenience of not having to commute every day to school, which saved so much time and energy. Additionally, parent benefited from less stringent assignment submission time during online learning. The flexibility in terms of assignment submission time during online learning is a key aspect of self-paced and flexible learning environments. Research has shown that students' delay in assignment submission can be a significant predictor of their success and course completion. For instance, measures such as the average days between assignment submissions and the time management of self-regulated learning have been used to understand students' delay patterns and predict their successful completion and retention (Lim, 2016).

This study also discovered that a number of students' engagement as well as comprehension increased throughout the implementation of online learning, which was due to the ease of accessing learning material in video format time after time. Furthermore, a study by Abdelkareem et al. (2021) analyzed the efficacy of online learning systems in enhancing student engagement and confirmed that student engagement had a significant direct effect on performance impact, emphasizing its importance in the online learning context.

3. Teaching Strategies in Online English Learning for Students with ASD

Findings of this study shown that in the implementation of online learning, there were strategies implemented whether by teacher or parent; organization of the physical environment, predictable sequence of activities, visual schedules, routines with flexibility, structured work or activity systems, and visually structured activities.

This study discovered that the parent has designated particular space for their children to carry out online classes, also contributed in providing clear physical boundaries as well as setting the space to be minimum of distractions which imply the use of organization of physical environment strategy. Dargue et al. (2021) reviewed journals of Autism and Developmental Disorders focusing the impact of physical environmental modifications on task engagement in individuals with ASD, suggested that whether physical environmental modifications benefit task engagement in individuals with ASD need better determination for it still requires more high-quality evidence. However, physical aspects of the environment in general such as lighting, background noise, or seating can impact engagement with tasks in individuals with ASD.

Strategy of predictable sequence of activities also used in the implementation of online learning, the teacher consistently shared the schedule to both the students and the parents; for the parents, the teacher conveyed it through the WhatsApp group chat room a few moments before the lesson began. Chalfant et al. (2017) stated that students with ASD may benefit from using schedules in their lessons; as they can help organize information, connect past and present experiences, and link concepts. Additionally, activity schedules and strategies aligning with students' preferences effectively improve transition difficulties in students with ASD (Iovannone et al., 2003).

Visual schedules contain clear set of cues that can be followed easily by students. In this study, the teacher verbally told the students about the sequence of learning activities that day and also showed a table which was visual form of the schedule. According to Schopler, Mesibov, and Hearsey, a well cued schedule will assist individuals in minimizing problems with impaired memory or attention, fostering independence, increasing self-motivation, reducing time and organization challenges, and compensating for receptive language difficulties.

The use of routines with flexibility for students with ASD is an important consideration in their educational environment. It is found that the teacher implemented the use of routines to the ASD students by doing the exact same thing in the sequence of the learning activities, while also give flexibility of variations to the details of the routines. Several studies have emphasized the importance of flexible and adaptable learning strategies for students with ASD. For example, a study by López-Bouzas & Pérez (2023) on the use of an Augmented Gamified Environment (AGE) for improving communicative skills in students with ASD which highlighted the importance of the environment's adaptability, flexibility, and functionality in providing students with playful linguistic and socio-emotional development in an immersive setting.

Structured work or activity system is a kind of information which should be systematic, mostly about what must be done, how to execute it, when it will end, and what happens next after doing the work. In this study, it was found that the teacher implemented this strategy by dividing the activity into 'beginning', 'middle', and 'end' sessions and using certain cues to signify each session.

Visually structured activity refers to activities that will be done by the individuals with ASD, and clearly visualized using words, sentences, pictures, objects, symbols, etc. According to the findings of this study, the teacher offered instructions in visual formats such as tables, pictures, diagrams, and hand drawings, as well as provided visual help by emphasizing important points in the task with a clear visual differentiation. The parent also implemented this strategy by providing visual aids like flashcards and writing activity in assisting children with ASD to learn independently at home. According to Iovannone et al., (2003), visually structured activities are one of the core elements in effective instructional programs for students with ASD. Furthermore, Schopler, Mesibov, and Hearsey, stated that visually accessible information can aid to alleviate tension and behavioral problems.

5. Conclusion

The first research question is about the challenges found by teacher and parent in the implementation of online learning during COVID-19 pandemic. According to the result of this study, it was found that the teacher faced five out of seven points of challenges which were; the need to adapt to suit an online format, the lack of face-to-face interaction between students and teachers, digital divide, student's struggle to maintain self-discipline

and motivation while learning independently, as well as the lack of focus and time management problem, meanwhile the parent found seven out of seven points of challenges which were; all five points mentioned before, as well as student's feelings of alienation and disconnection from their peers and teachers, also overload screen time and digital content.

The second research question is about the opportunities gained by teacher and parent in the implementation of online learning during COVID-19 pandemic. It was shown that the teacher found three out of six points of opportunities which were; access to wide array of online resources, enhance students' engagement, also flexibility in scheduling and pace of learning, meanwhile the parent found one opportunity in online learning which is the flexibility in scheduling and pace of learning.

The third research question is about the strategies used in online teaching English to children with ASD during COVID-19 pandemic in accordance with the theory of Structured Teaching Strategy in Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH) Approach by Schopler. The findings of this study shows that the teacher used strategies such as: (1) predictable sequence of activities by providing a schedule of learning activities for the day; (2) visual schedules by verbally telling students what to do or what will happen next, and providing daily schedules involving simple pictures or photographs in two out of four class recordings; (3) routines with flexibility by implementing the use of routines, and giving variations to the details of the routines in two out of four class recordings; (4) structured work or activity systems by dividing the activity into beginning, middle, and end sessions, also by using certain cues to signify each sessions; (5) visually structured activity by giving instructions in visual forms, providing visual assistance to make task more manageable, and emphasizing visual clarity to the task to help student identify its most important components and features. On the other hand, in the implementation of online learning, the parent used strategies such as: (1) organization of the physical environment by providing clear physical boundaries and setting the activity space to be minimum of distractions; (2) routines with flexibility by implementing the use of routines; (3) visually structured activity by keeping the materials that are used in the tasks are well organized.

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