(AU-ASSESS) UTILIZATION OF ONLINE PLATFORMS IN ASSESSING THE COGNITIVE AND COMMUNICATION SKILLS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

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Abstract

Autism spectrum disorder (ASD) is a developmental disability result to significant social, communication and behavioral challenges. Children with ASD may have difficulty developing language skills and understanding what others say to them.

Cognitive and Communication skills of children with autism spectrum disorder, one of the major areas that need to develop. In this time of pandemic, assessing the development of children diagnosed with cognitive and communication needs was challenging, in terms of dissemination and the conduct of assessment tools under distance learning.

This study highlights the utilization of online platforms such as Quizziz, Google Form and Google meet in the development of cognitive and communication skills among ASD learners. With this, it helps the learners to be more engaging in the assessment of what they have learned.

As result, ASD learners performed well in the utilization of online platforms such as Quizziz, Google Form and Google meet in the development of cognitive and communication skills among ASD learners.

Thus, online activities may lead to address the needs of learners with ASD. It helps parents to communicate and mentor them with their respective adviser on how to deal with the behavior and communication difficulties. Integration of technology to the curriculum of cognitive and communication skills of learners with ASD, may develop their attending skills. Scheduling of thirty minutes to 1-hour online discussion is beneficial for learners, parents, and teachers to assure the mastery of competencies required.

Keywords: *Autism Spectrum Disorder, Special Education, online platforms*

INTRODUCTION

Autism spectrum disorder (ASD) is a developmental disability result to significant social, communication and behavioral challenges. Children with ASD may have difficulty developing language skills and understanding what others say to them.

The core symptoms showed by people with autism spectrum disorder (ASD) fall into two types: (1) social communication and interaction discrepancies; and (2) restrictive and repetitive behaviors, interests, and activities (American Psychiatric Association, 2013). There is a great deal of diversity in the severity of these symptoms ranging from low or no verbal or social skills to high levels of these skills, which is why autism is now considered a “spectrum” disorder. Other symptoms may include intellectual impairment, sensory sensitivity, attention and executive functioning problems, motor difficulties, and behavior problems (Johnson, 2014).

Cognitive and Communication skills of children with autism spectrum disorder, one of the major areas that need to develop. In this time of pandemic, assessing the development of children diagnosed with cognitive and communication needs was challenging, in terms of dissemination and the conduct of assessment tools under distance learning.

Information and communication technologies (ICT) became extensive in the 21st century including educational settings. It changed paradigms in education, which essential revising instructional materials and assessment tools. Internet and mobile technologies triggered these changes further. Such transformations require new information-based tools and (Kagohara S., 2012).

Technological transformations have also been accepted by the special education field. Herbert K. (2010) emphasizes the importance of ICTs and particularly mobile technologies in generating a reform in special education practices. Computers and computer-based systems, virtual reality, multimedia, interactive videos, and many other progressive tools can be stated as examples to demonstrate ICTs’ potential to produce effective learning environments for individuals with special needs.

Learners can reach different types of contents such as texts, graphics, animations, images, videos, sounds that can be interactively and easily. Online Platforms can facilitate such an interaction where the materials become more effective and interesting (Mukti & Hwa, 2014)

As of June 2020, eleven (11) ASD learners enrolled in Level 1-Coral with chronological age range 8-12 years old. Parents have difficulty in dealing with Children with Autism Spectrum Disorder and engaging them in paper and pencil assessment tools.

This study highlights the utilization of online platforms such as Quizziz, Google Form and Google meet in the development of cognitive and communication skills among ASD learners. With this, it helps the learners to be more engaging in the assessment of what they have learned.

This study aims to enhance the assessment tool for children with autism. Online platform as assessment tool helps to consolidate learning and strengthen recall skills. It’s also helped the teachers to monitor progress, weak spots, and areas of excellence.

METHODOLOGY

Based on the data gathered, eleven (11) ASD learners enrolled in Level 1-Coral with chronological age range 8-12 years old. Parents have difficulty in dealing with Children with Autism Spectrum Disorder and engaging them in paper and pencil assessment tools.

This action research anchored on the following procedures that result for the utilization of online platforms in assessing the performance of children with autism.

First, Teachers and Parents Orientation. Orientation of the parents to their role in Distance Learning. Discuss to the parent the importance of communication, commitment, and collaboration to the effectiveness of the assessment tool.

Second, Interview with the parents to determine the Present level of performance. Parents need to provide information on the present level of performance of the learners to align the assessment tool with the use of online platforms for children with autism. They provide information on the status and capabilities of their child.

Third, Scheduling. After determining the present level of performance, the teacher scheduled the learners. The schedule was based on the form filled up by the parents, based on their availability and preferred time to assess the learner.

Fourth, create an assessment tool using online platforms. The teacher utilized quizziz, google meet and google form for assessing the performance and written task and to validate the submitted worksheets if reliable. For validity and reliability of assessment tools on the online platform, school-based worksheets served as reference.

Last, Progress Monitoring. Accomplished feedback forms, Self-monitoring tools, and worksheets to determine the student progress and the effect of online platform for the assessing the children with autism progress.

RESULT

The following are the result of the data gathered in the study about utilization of online platforms in assessing the cognitive and communication skills of children with autism spectrum disorder.

Table 1
Assessment of Level I-Coral In Cognitive and Communication Skills Using Paper and Pencil Test

Learning Areas	Level of assessment using paper and pencil test
Pre Mathematics	Fairly Satisfactory
Reasoning	Fairly Satisfactory
Speaking	Fairly Satisfactory
Reading	Fairly Satisfactory
Pre-writing skills	Satisfactory

Table 1, entitled Assessment of Level I-Coral In Cognitive and Communication Skills Using Paper and Pencil Test showed Learning Areas such as Pre-mathematics, reasoning, speaking and reading was fairly satisfactory while pre-writing skills was satisfactory. This entails pre-writing skills was the most developed in paper and pencil test.

Table 2
Number of learners to the Assessment of Level I-Coral in Cognitive and Communication Skills Using Paper and Pencil Test

Level of assessment using paper and pencil test	Number of learners
Outstanding (90-100)	0
Very Satisfactory (85-89)	1
Satisfactory (80-84)	4
Fairly Satisfactory (75-79)	6
Did Not Meet Expectations (74-Below)	0

Table 2, entitled Number of learners to the Assessment of Level I-Coral in Cognitive and Communication Skills Using Paper and Pencil Test exhibited that there were 1 learner, very satisfactory (85-89) and 4 learners were satisfactory (80-84) and 6 -learners were fairly satisfactory (75-79). None of learners reported outstanding and did not meet the expectation in the level of assessment using paper and pencil test. Most of the learners were fairly satisfactory to the level of assessment using paper and pencil test, followed by satisfactory and the least was very satisfactory.

Table 3
Assessment of Level I-Coral In Cognitive and Communication Skills Using Online Platforms Such As Quizziz, Google Forms And Google Meet

Learning Areas	Level of assessment using paper and pencil test

Pre Mathematics	Very satisfactory
Reasoning	Very satisfactory
Speaking	Very satisfactory
Reading	Outstanding
Pre-writing skills	Very satisfactory

Table 3, entitled Assessment of Level I-Coral In Cognitive and Communication Skills Using Online Platforms Such As Quizziz, Google Forms And Google Meet conveyed learning area such as Pre-mathematics, reasoning, speaking and Pre-writing skills were found very satisfactory while reading was outstanding. This implies that reading was the most developed learning area in utilizing online platform.

Table 4
Number of learners to the Assessment of Level I-Coral in Cognitive and Communication Skills Using Online Platforms Such as Quizziz, Google Forms and Google Meet

Level of assessment using Online Platforms Such as Quizziz, Google Forms and Google Meet	Number of Learners
Outstanding (90-100)	5
Very Satisfactory (85-89)	6
Satisfactory (80-84)	0
Fairly Satisfactory (75-79)	0
Did Not Meet Expectations (74-Below)	0

Table 4 entitled Number of learners to the Assessment Of The Level I-Coral In Cognitive And Communication Skills Using Online Platforms Such As Quizziz, Google Forms And Google Meet delivered that there were 5 learners, outstanding (90-100), and 6 learners were very satisfactory (85-89). Most of the learners were very satisfactory in the level of assessment using Online Platforms Such As Quizziz, Google Forms and Google Meet and the least was outstanding level of assessment.

DISCUSSION

Online activities may lead to address the needs of learners with ASD. It helps parents to communicate and mentor them with their respective adviser on how to deal with the behavior and communication difficulties. Integration of technology to the curriculum of cognitive and communication skills of learners with ASD, may develop their attending skills. Scheduling of thirty minutes to an hour online discussion is beneficial for learners, parents, and teachers to assure the mastery of competencies.

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REFERENCES

American Psychiatric Association, (2013) The diagnostic and statistical annual of mental disorders – fifth edition. Arlington, VA: American Psychiatric Publishing.

Herbert K. (2010) Finding new solutions for ELL assessments. Retrieved December 10, 2013, from http://www.districtadministration.com

Kagohara S., (2012) Teaching children with autism spectrum disorders to check the spelling of words. Research in Autism Spectrum Disorders, 6, 304-310.

Johnson, I. (2014) Early clinical characteristics of children with autism. In V. B. Gupta (Ed.), Autistic spectrum disorders in children (pp. 85-123).

Mukti & Hwa S. (2014) Malaysian Perspective: Designing interactive multimedia learning environment for moral values education. Educational Technology & Society, 7(4), 143-152.