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Online Distance Learning (ODL) Storytelling: Improving Attention, Activity Level and Related Behavior of Autism Pupil

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Abstract Several researches confirmed the cognitive importance of digital storytelling in supporting learning. The study aimed to observe the behavioral changes of autism pupils specifically their attention, activity and other related behaviors through online distance storytelling. The participant of the study belong to the Online Distance Learning (ODL) Grade 6 class of a local elementary school. Descriptive research designed was used. In gathering the data the teacher rated the pupil before and after the storytelling in terms of the behavior being observed. A standardized Behavior Checklist was used a research instrument. In over one month of session of online storytelling, the pupil's behavior improve in terms of focus, level of action, and related actions. Based on the findings, storytelling delivered through ODL positively affect the behavior of the pupil. The consequence of these examinations show that the use of storytelling as a teaching and learning method modifies the behavior of autism pupil. The results further indicated that when learner is exposed to storytelling even in the online platform, they are most likely to engage themselves in the learning process and practice reflective learning as he processes information on a deeper, more meaningful level. Furthermore, the participant displayed evidence of transformational learning in terms of attention, activity level and related behavior. Presently with the development and openness of interactive media devices, the act of narrating as an advising device with kids can be extended using innovation.

Keywords: *Online Storytelling, autism, action research, attention, activity Level, online learning*

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1. Introduction

Storytelling plays a big part in therapy for autistic children [1]. It is used in conjunction with songs and the children are encouraged to enact the parts of different characters from stories. Storytelling aids in the development of language skills, enhances listening skills, increases attention span, and fosters curiosity and imagination in children.

The act of telling stories is at the heart of the human experience. Personal stories give us a sense of meaning and identity, and they provide us with a sense of belonging. Children with autism spectrum disorder (ASD) benefit from storytelling because it helps them learn language skills and develop their listening skills, improve attention span, foster curiosity and imagination, and gain a deeper understanding of nonverbal communication [2]. Likewise, account narrating gives the fundamental design of how we make importance out of our reality and regular day to day existences. Besides, neuroscience means that the every relationship is wired to organize, retain, and access information through story, and the brain is wired to organize, retain, and access information through story experience and object is recorded in the psyche as a story [3]. Therefore, storytelling therapy combined with behavioral techniques established by the story and the promising theatrical approach which made it possible for the children with autism to practice social skills with their peers [4].

Writing uncovers that account narrating improves learning by effectively captivating students in the data they are being presented to versus uninvolved understudies support regularly found in customary homeroom settings [5]. Much more, apparently account narrating in a learning local area meets the measures of mind based and a few other learning and showing speculations on numerous levels.

Information and communication technologies (ICT) got far reaching in a few fields in the 21st century including instructive settings. It changed ideal models in schooling, which required amending instructional materials as needs be. Web and portable advancements set off these progressions further. Such changes require new data based apparatuses and programming to be made also [6].

Ongoing innovative changes have additionally been embraced by the specialized curriculum field. For example,

Herbert [7] underlines the significance of ICTs and especially versatile advances in making a change in a specialized curriculum rehearses. PCs and PC-based frameworks, augmented reality, media, intelligent recordings and numerous other progressed instruments can be expressed as guides to outline ICTs' capability to establish compelling learning conditions for people with extraordinary requirements. Besides, powerful hypothetical structures have been proposed in applicable fields including the interactive media learning approach, which considers singular contrasts and learning attributes while creating innovation rich and viable instructional plans.

The employments of advanced narrating range from a way to communicate imagination, to an examination strategy for neighborhood medical problems or a methods for protecting a local area's character and a type of oral history. As a strategy, computerized narrating consolidates procedures to create proficiency and narrating abilities with a prologue to essential ICT, utilizing bunch activities and individual cycles that create certainty and fabricate confidence.

On a superficial level these advanced stories are generally particular, individual general media records of a person's story, yet the making of them is formed by the synergistic involvement with the workshop. Every story shows how somebody visualizes their place in an individual and a public world.

Researchers who are keen on techniques to adapt to the Autism Spectrum Disorder (ASD) can likewise receive ongoing innovation rich executions to improve the instructional environment. In the Demonstrative and Measurable Manual of Mental Problems, ASD is characterized as a neurodevelopmental issue set apart by deficiencies in the regions of social correspondence and other psychological and engine practices [8]. The oddity impact coming from the utilization of late mechanical apparatuses is probably going to support more elevated levels of interest among people with ASD. In such manner, instructing a few social, psychomotor and scholastic abilities can be encouraged using these devices. These exercises are handily utilized through the assistance of current mechanical gadgets like cell phones and tablet laptops. As needs be, late work uncover that such gadgets are very easy to understand, moderate and support higher and more practical authority over the instructional substance [9,10]. Also, they encourage individualized learning openings for the students with ASD [11].

Narrating is useful. To begin with, narrating upgrades the study hall climate and environment. A decent story can loosen up students and decrease fears since they are engaging and on occasion, clever. As per Richter and Koppett [5] a very much recounted story can achieve a feeling of local area and having a place in learning networks better compared to most conventional educating techniques. In addition, narrating connects with students on a level that many encouraging techniques don't [12]. More so, the fact that learners hear the data, however they are drenched in the substance on a more profound and more extravagant level through enthusiastic and individual associations and visual symbolism (Eck, 2006). The way that accounts summon feelings adds to their learning adequacy since learning encounters related with feelings are all the more effortlessly put away and reviewed (Weiss, 2000). Essentially, Perry (2000) underpins this reason expressing that when stories mix feelings, the intellectual pieces of the cerebrum are actuated to store the new data. Furthermore, narrating has large numbers of the advantages of test learning because of the degree of dynamic commitment made [5]. The distinctive pictures invigorated by narrating advance character recognizable proof in this way captivating the students as a functioning member in the learning cycle. At the point when students are occupied with along these lines, research uncovers improved arrangement and capacity of the student to apply what they have realized in the work setting. Alterio and Mcdrury [13] advance the trial part of narrating and battle that narrating is a particularly valuable showing methodology for youthful experts consequently.

Kids determined to have ASD show extraordinary attributes that recognize them from their companions with different sorts of difficulties. Qualities of people with ASD remember trouble for identifying with others and circumstances, deferred relational abilities, and presentations of monotonous or self-stimulatory practices [14].

Youngsters with ASD may take part in monotonous practices, show hyperactivity or heedlessness, experience issues with social circumstances, detest changes in their current circumstance, have issues with correspondence and language, experience trouble in summing up mastered abilities to new circumstances, and they may show forceful or troublesome practices [14].

The theoretical framework used is behaviorism as a learning theory. This is based on a change of knowledge through controlled stimulus/response conditioning. This type of learner is dependent upon an instructor for acquisition of knowledge. The teacher must demonstrate factual knowledge, then observe, measure and modify behavior in a specified direction. Operant conditioning is a theory that states behavior and reward equals more behavior and vice versa. A conduct will increment on the off chance that it is trailed by encouraging feedback. It If it is followed by restraint, it will deteriorate. Operant condition is thus "learning by consequences". Thus, it involves learned behaviors and is associated with a stimulus and a response (Pavlov).

This research attempted to find out the effects of Online Storytelling in modifying behaviors of autism pupil in the ODL class. It sought to study the effect of ODL storytelling in the attention, activity level and related behavior of autism pupil.

2. Methodology

The descriptive-quantitative research design was used in this study [15]. The research was conducted in the Grade 6 Online Distance Learning class of the research proponent. The study utilized purposive sampling method. The study adopted the checklist of Scott Greenway. It was content validated by expert SPED teachers in the Department of Education to suit to Filipino pupils.

Each behavior was further described by possible actions of pupils while they were being observed during the term

of the study. If a specific action was observed in a pupils, this was then classified as any of the following: a. High Concern to Fair Concern, b. High Concern to Little Concern, c. High Concern to None, d. Fair Concern to Little Concern, e. Fair Concern to None and f. Little Concern to None.

A specific action is considered to be of High Concern to Fair Concern if it is observed five times a day during the study, of High Concern to Little Concern behavior if it is observed from five times then reduced to only once or twice in a day, and High Concern to none if it is no longer observed after the study. If the specific action was observed at the start three to four times a day and then gradually was reduced to once or twice a day, then it is a Fair Concern to Little Concern type of behavior. It is Fair Concern to none if the behavior was observed at the outset for three or four times but gradually disappeared during the course of the study. Little Concern to None means that a specific action was observed once or twice at the start but disappeared as the study progressed.

The questionnaire was validated. The reliability index (Cronbach's alpha) is 0.74 [16].

The participant was pre-tested before the start of the study and was post-tested after a month by the subject teachers. The storytelling sessions were done thrice a week. The following describes the manner in which the story was delivered effectively to the participants:

1. The storyteller used an expressive tone in his voice in order to hold the listeners' attention. The speed in which the story was narrated changed every now and then. At times, he lowered his voice and at other times, he raised it when necessary. He expressed delight and surprise when it was appropriate to do so.
2. The storyteller looked each pupil in the eyes. It was also important for him to sit at the pupils' eye level.
3. After slowly opening the book to the right page, the storyteller held the book on his lap or displayed visual aids in front of the pupils.
4. The storyteller made sure that his first sentence attracted the student's attention.
5. The story's pacing or timing was changed. This was to avoid monotony, which resulted in the pupils getting bored.
6. Characters and events were portrayed by changing one's voice and using gestures which distinguished them. The storyteller kept in mind that gestures were to be simple and not exaggerated.
7. The story was linked to the lesson. In a sentence or two, the storyteller explained to the participants the moral of the story. He kept it brief. He allowed the story to be absorbed in his listener's minds. He let the story speak for itself. He asked at least three questions, which deals always on lesson of the story.

Ten different folklore stories with the themes of adventure, comedy, and among others were used. Every story was delivered differently. The level of difficulty was from simple to complex and the length ranged from short to long stories to help the storyteller assess the pupils' understanding during the storytelling and to prepare the pupils to listen and participate in the activities during the storytelling. The stories were from simple to complex for them to easily comprehend the stories. At the end of every story, an activity was given to assess learning. The activity was either oral or written. After the conduct of observation and collection of the accomplished checklist, the responses were noted, tallied and tabulated. The frequency was used in the study.

3. Results and Discussion

Table 1 presents the results of storytelling on behaviors of autism pupil in the ODL grade 6 class. It could be observed from the data that the participant manifested positive changes in behaviors. The positive changes were observed from High Concern to Fair Concern behaviors, Fair Concern to Little Concern behaviors or Little Concern behaviors to none. The behaviors where the participant showed more positive changes are in difficulty in sustaining attention in tasks or play activities, failure to pay close attention to details or making careless mistakes in schoolwork or other activities, not listening when spoken directly to, forgetfulness in daily activities because aside from the unique style of the researcher in telling the story, the stories themselves were interesting to the participant. Every story presented was made graphic by all forms of multimedia, which showed how characters looked like. Stories were presented in video format, which thrilled the participant and which held their attention. This further indicates that storytelling decreases anxiety and provides joy, confidence, and relaxation [17,18]. More so, this highlights that the inclusion of ICT, as part of storytelling, in the classroom can become an important educational tool to develop motivation [19].

Storytelling in the aspect of attention, activity level and other related behaviors of the participants is effective if the stories are interesting to the participant and the storyteller used effective strategies such as tone-shifts in the voice and the use of varied facial expressions all of which portray clearly the emotions of the characters or of the mood of the story. The storyteller plays a big role in modifying the behavior of the participant. In addition, storytelling can also be combined with drama, play, construction, or use of digital tools to maximize its positive effects on students [20].

The participant improved on matters of giving close attention to details. This participant who from high concern to fair concern. Not to mention that the storyteller was animated. With this, the storyteller used props, cards, songs, otherwise, storytelling by itself, without the props, would probably prove disappointing to both the participant and teacher. Similarly in the study of Kory Westland et al. [21] where students engage more when robotic narration was expressive compared to flat robots. This highlights the importance of animation and expression in how stories are delivered.

Table 1. Observed behavior from Pre-storytelling to Post-storytelling in Terms of Attention, Activity Level and Related Behaviors

Indicators	Positive Change	No Changes	Not Observed
The pupil …….			
- fails to give close attention to details or makes careless mistakes in school work or other activities.	1		
- has difficulty sustaining attention in tasks or play activities.	1		
- does not seem to listen when spoken to directly.	1		
- does not follow through on instructions and fails to finish schoolwork, chores, etc.	1		
- has difficulty organizing tasks and activities, e.g. art activity, writing activity, PE, sorting activities, etc.	1		
- avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as school work or homework).	1		
- loses things necessary for tasks or activities (e.g. school supplies, toys).	1		
- is easily distracted by extraneous stimuli, such as other things happening.		1	
- is forgetful in daily activities.			1
- fidgets with hands or feet or squirms in seat.			1
- leaves seat in classroom or in other situations when unexpected to do so.		1	
- runs about/climbs excessively in situations where it is inappropriate.			1
- has difficulty in playing or engaging in leisure activities quietly.		1	
- is “on the go” or acts as if “driven by a motor”.	1		
- talks excessively.		1	
- blurts out answers before questions have been completed.		1	
- has difficulty waiting his or her turn.		1	
- interrupts or intrudes on others (butts into conversations/games).	1		

4. Conclusion

The behaviors of the autism pupil have improved through online storytelling in terms of attention, activity level and related behaviors. This is based on the results of the pre-test and post-test given by the ODL teacher in-charge and subject teachers. The attention, activity level and related behaviors, the participant improved from his difficulty in sustaining attention. The online storytelling brought positive changes to the participant in giving close attention to details, sustaining attention in tasks or play activities, listen when spoken directly, follows instructions, organizing tasks and activities, engage in tasks or require sustained mental effort, fidget with hands, blurts out answers before questions have been completed, waiting for his turn and interrupting other. The results of this study indicated the use of storytelling as a teaching and learning method in modifying the behavior of autism pupil even in the ODL class. The results indicated that when learner is exposed even in online storytelling, he is most likely to engage himself in the learning process and practice reflective learning and he processes information on a deeper, more meaningful level. Furthermore, the participants displayed evidence of transformational learning in terms of attention, activity level and related behaviors.

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