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EFFECT OF ELECTRONIC STORYBOOKS ON PRESCHOOLER'S RETENTION OF VOCABULARY AND MOTIVATION TO READ

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ABSTRACT

This study examined the impact of electronic storybooks on the ability of toddlers in Delta State to remember and understand vocabulary, as well as their level of enthusiasm for reading. The study utilized a quasi-experimental design. The population for this study included 1,314 nursery three children from 25 public nursery schools in Oshimili South Local Government Education Authority, Delta State. This group was made up of 645 males and 619 females. The sample for the study consisted of 150 preschoolers, representing all the 25 public nursery schools in Oshimili South Local Government Education Authority, Delta State. The study included a multi-stage sampling approach, utilizing purposive and simple random sampling procedures. Four primary schools were selected, and one intact class was chosen from each school. The schools were then assigned to either the experimental or control group. The study has six distinct objectives. The study was led by six research topics and six null hypotheses. The data collection instruments utilized were researcher-developed tools known as the Effects of Electronics Storybooks on Preschoolers' Retention of Vocabulary and Motivation to Read (EESPRVMR). These instruments were validated by experts. The internal consistency of the EESPRVMR was calculated to be 0.94 using Kuder Richardson's formula (K-R20). Prior to the initiation of the treatment, the EESPRVMR was administered as a pre-test to both groups in each of the selected schools. The duration of the treatment spanned a period of one month. Following the therapy session, the identical instrument, with the numbers rearranged, was given to the participants to collect the post-test results. The acquired data were utilized to address the study inquiries and validate the hypotheses. The research inquiries were addressed by employing the measures of mean and standard deviation, whereas the hypotheses were examined via the utilization of Analysis of Covariance (ANCOVA) at a significant level of 0.05. The findings revealed that the preschoolers in the experimental group exhibited a greater average score in vocabulary retention and motivation to read during the post-test phase. The findings also indicated that both male and female preschoolers in the experimental group exhibited greater average vocabulary retention and higher average enthusiasm to read. The

outcomes of the study led to the conclusion that it offered empirical evidence supporting the advantages and effectiveness of electronic storybooks in enhancing toddlers' ability to remember language and their motivation to read. It was also suggested that the government and other professional organizations should arrange workshops, seminars, and conferences to instruct and raise awareness among instructors currently employed on the utilization of electronic books for enhancing vocabulary retention and fostering reading motivation.

Keywords: Preschoolers, electronic story books, vocabulary retention.

Introduction.

Reading is crucial and indispensable for efficient performance, and a decisive element in the attainment of the objectives and goals of education. Hence, the capacity to comprehend written language is an essential component of our educational endeavors. Hence, a student at whatever level or age who lacks reading skills is already restricted in taking advantage of the available options for achieving academic success. Nevertheless, researchers have discovered that poor performance in reading significantly hinders effective academic performance among learners worldwide, despite the crucial and significant role that reading plays in our educational success. A youngster who faces difficulties in reading will encounter challenges in other academic disciplines, so impacting and potentially reinforcing a pessimistic outlook towards reading (Avid as mentioned in Ayedun, 2014, Antilla, 2013). Hence, in order to cultivate a favorable mindset towards reading and achieve proficiency as a reader, it is essential to foster the growth of retention and motivation, which serve as prerequisites for reading success. One of the goals of pre-primary education is to foster the growth of retention and motivation.

Pre-primary education serves as the foundation for subsequent levels of education. Pre-primary education refers to the formal instruction provided to children in an educational institution before they start primary school (FRN, 2013). It comprises the crèche, the nursery, and the kindergarten. Maduewesi, as referenced in Ugwu's (2012) study, defines pre-primary education as the educational process provided to children aged zero to five years. This education encompasses a range of activities and programs designed to promote the overall development of the child. Preschoolers or pre-primary school children are the young children who attend pre-primary education facilities. The education provided to them in pre-primary school is known as pre-primary education. Within the scope of this study, pre-primary education refers to the educational instruction provided to children between the ages of zero and five in pre-primary schools, before they commence primary school.

The basic goal of pre-primary education is to establish a solid basis upon which the subsequent education of the preschooler can be built. The National Policy on Education (NPE) by the Federal Republic of Nigeria (FRN) outlines several objectives of pre-primary education. These objectives include facilitating a seamless transition from home to school, preparing children for primary education, offering proper care and supervision while parents are at work, instilling social norms and good habits,

particularly in terms of health, and teaching basic concepts such as numbers, letters, colors, shapes, and forms through play. The aforementioned commendable objectives of pre-primary education, as outlined in the NPE, are imperative for equipping preschoolers with fundamental experiences that will enable them to thrive in primary education.

Studies have demonstrated that a significant number of students at the secondary education level exhibit subpar performance in reading assignments (Popoola, 2013). The cause of this predicament has been identified as a lack of retention and motivation to read at the pre-primary level. The cause of this can be attributed to a deficient basis in reading skills. The pre-primary phase is crucial for learning since children in this age range rapidly acquire key skills that serve as the foundation for the later development of reading.

The achievement of children in pre-primary education and their future success in life largely hinges on their proficiency in reading and writing. Literacy is a crucial ability that is essential for the academic growth of children. Reading is the cognitive activity of visually perceiving and interpreting a sequence of written symbols to derive meaning. As to Baker (2011), reading is the cognitive activity of recognizing and comprehending the significance of characters and words in written or printed material. Baker additionally asserted that the process of reading commences with the utilization of the visual organ and cognitive recall to identify forms, arrangements, and alphabetic characters, and culminates in the application of prior encounters and contextual understanding to validate the comprehension of the text. This confirmation signifies the reader's understanding of the text. Within the scope of this research, reading is defined as the aptitude of preschool-aged children to decipher or comprehend written or printed words and extract significance from them. Reading is highly essential and crucial.

The significance of reading in the education of children cannot be overstated. According to Cunningham and Stanovich (2001), individuals who possess strong reading skills tend to engage in more reading activities, resulting in the accumulation of a wide range of experiences and enhanced language proficiency. This provides them with an advantage over their counterparts who struggle with reading. According to Obasi (2016), the issue of children who are unable to read poses a clear academic challenge, as textbooks are designed to be read and comprehended. Furthermore, it is vital for children to comprehend and interpret test prompts in order to provide accurate responses. Literacy has a pivotal role in determining the academic achievement or lack thereof among children. Obasi emphasized the necessity for every child to acquire the fundamental skills of reading. Preschoolers must possess the capacity to comprehend and analyze information in order to acquire the fundamental skills required for traditional reading when they transition to primary school. For children to be able to comprehend whatever the teacher is teaching and at the same time read what has been taught there must be retention of vocabulary.

Druin (2009) defines vocabulary as the collection of lexical objects in a language that serve as the fundamental components comprising its lexicon. Mastering vocabulary is crucial for obtaining proficiency in a language as it greatly influences the

effectiveness with which learners acquire listening, speaking, reading, and writing skills. Vocabulary plays a crucial role in language acquisition since it directly impacts the success of learners in mastering the language. In his work, Solomon (2010) argued that a deficiency in grammar hinders effective communication, but a deficiency in vocabulary results in a lack of comprehension by the listener or reader.

According to Obasi (2016), a significant number of young learners between the ages of 7 and 12 struggle to acquire a sufficient vocabulary, despite being exposed to the target language at an early stage. An issue of great significance faced by second language learners that has garnered considerable attention is the students' inadequate ability to remember terminology. The majority of the students were mostly unable to remember the vocabulary, not to mention the corresponding meanings, that they had learned from one day to the next. This has definitely led to the dismissal of whistleblowers among the teachers, as if the endeavor of teaching language fails to be implemented and is wasted. For example, if the teacher imparted three new terms to the students in a single day, they would subsequently fail to retain two of those words on the next day. The issue is not in the absent-mindedness of the learners, but rather in their sense of humility due to the existence of students who can identify the written or spoken form of a word, yet struggle to comprehend its meaning without the guidance of professors. Indeed, the children' limited vocabulary remained a substantial obstacle throughout their reading and writing classes. Consequently, numerous assertions have been put forth regarding the significance of language retention in the process of vocabulary acquisition. Children, being familiar with traditional teaching methods, generally rely on rote memory to learn new vocabulary. This approach, which involves repetition, might lead to reduced attention span when acquiring vocabulary.

Similarly, the majority of existing syllabi and curricula primarily focus on introducing new language to children, without adequately assessing whether the children are able to retain the acquired vocabulary or not. Merely introducing youngsters to new words is insufficient. Instead, they should be instructed on how to effectively retain word within its context in order to optimize vocabulary acquisition. The retention tactics play a crucial role and have a significant impact on language acquisition in the future. Vocabulary retention, usually referred to as the capacity to recall lexical items after a certain amount of time, is essential for achieving mastery in vocabulary (İnceelli, 2005). In order for toddlers to achieve proficiency in reading, it is crucial for them to possess a high level of motivation. This is because motivation serves as a powerful force that can greatly enhance a child's effectiveness in reading.

Based on my observation as a teacher in the Oshimili South Local Government Education Authority of Delta State, it is evident that preschoolers lack motivation in reading. Ganea and DeLoache (2011) found that motivation plays a crucial role in influencing the reading skills of preschoolers. Hence, youngsters who lack the drive to read would be unable to engage in academic reading, let alone derive enjoyment from it. The current condition is concerning as Elui (2015) suggests that when youngsters fail to engage in reading, it leads to poor academic performance. Hence, the cultivation of

toddlers' motivation to read plays a vital role in achieving academic brilliance.

The drive to learn refers to a preschooler's inclination to perceive academic activities as meaningful and valuable, and to actively seek the intended educational advantages from engaging in them (Sawyer & Wills, 2011). Studies have demonstrated that the level of motivation for learning in preschool-aged readers can serve as a predictor for their reading proficiency on standardized exams and academic performance in school grades (Heo, 2009). Enhancing children's values, expectation, and emotions can enhance their motivation for the tasks they are now engaged in. Enhanced motivation will heighten the probability that preschoolers will dedicate the time and exertion required to accomplish the learning goals. Motivation is a crucial element in the learning process and must be considered when designing courses that aim to enhance vocabulary retention and improve reading skills.

Children's motivation and emotional attachment to objects are influenced by the visual appeal and perceived worth of the content. Children are inherently captivated by vibrant colors, items in motion, and their capacity to alter the available objects. This aligns with Solomon's (2010) perspective, which views motivation as a situational and attitudinal response to the surrounding environment and the opportunities present in a certain context. Put simply, the learner's circumstances and the resources at their disposal shape their attitude towards a specific expectation. This is a result of self-directed actions that are motivated by a strong emotional connection to specific items. Children perceive items, develop an affection for them, and subsequently interact with the objects through play or interaction.

The research conducted by Hopkins et al (2018) has demonstrated that the utilization of the appropriate tool can enhance a learner's long-term memory. Robin (2006) suggests that electronic storybooks are effective tools for enhancing learners' ability to remember and use new language more effectively. He further stated that electronic storybooks are considered to be more efficacious teaching tools than traditional books since learners are more attentive in the enjoyable and calming environment.

Electronic storybooks integrate the benefits of traditional printed books with the functionalities of computer technology. This can be beneficial for youngsters who have poor responsiveness to conventional printed literature or demonstrate reluctance towards reading (Maynard, 2010). Electronic storybooks encompass several forms such as talking picture books, CD-ROMs, tale books, and interactive books (Ashley, 2011). Electronic storybooks are narratives presented in a digital medium that may be accessed on a computer or an electronic reading device.

Electronic storybooks are digital versions of books that mimic the characteristics of traditional printed books, such as the ability to turn pages. They also offer additional features to aid the reader, such as word pronunciation, text highlighting, and text-to-speech options. Furthermore, electronic storybooks may include hypermedia elements like videos, animations, and sounds (Kelley & Kinney, 2017).The user's text is empty. The results of the study conducted by Huang and Liang in 2015. These characteristics in electronic tale

books enhance repetitive book reading, making it more fun and motivating for toddlers. They also help to improve language and comprehension skills, resulting in a qualitatively distinct and perhaps more supportive reading experience.

The utilization of electronic storybooks in the classroom holds great importance due to the fact that contemporary children are being raised in an ever more technologically advanced society. The majority of youngsters are constantly exposed to electronic devices from the moment they are born, and have never experienced a life devoid of internet access. A significant number of children occupy their time at home by participating in electronic pursuits, such as watching television or DVDs, utilizing Smart Phones, listening to CDs, and engaging in video games. (Korat, Graister & Altman 2019) proposed that the integration of technology, such as electronic tale books, in the classroom can facilitate the connection between home and school literacy. According to the authors, children who have a fondness for technology are more inclined to read and stay interested in books that are provided in an interactive digital format.

The features found in electronic storybooks have the ability to enhance readers' comprehension of the story and contribute to their retention and drive to read. According to Nicholas and Paatsch (2018), electronic storybooks not only provide engaging experiences for children, but also lead to cognitive enhancement. During this procedure, the children enhance their vocabulary and enhance their understanding of the alphabets. Electronic storybooks are concise narratives designed to convey a brief story about a specific topic. They utilize a range of multimedia resources, including pictures, videos, voice narration, and music, to enhance the storytelling experience (Kucirkova, 2018).

An electronic storybook is a technological application that enables teachers to efficiently incorporate technology in the classroom and create high-quality instructional content. It has a significant impact on integrating education with technology and implementing this integration in the classroom, particularly for toddlers. Electronic storybooks enable computer users to conduct research on a specific subject, compile a text based on the acquired knowledge, and provide the ability to craft an engaging narrative. Subsequently, this narrative is amalgamated with diverse forms of multimedia components such as visuals, pictures, sound, written content, video, and music to create a video, which is subsequently observed on a computer or on the internet (Robin, 2009). Electronic storybooks are highly helpful in enhancing students' recall and motivation for reading, as well as fostering their emotional intelligence and communication abilities. They contribute to the learning process by promoting hands-on and experiential learning. According to Sadik (2008), electronic storybooks stimulate pupils to engage in deeper thinking about their topics or stories, facilitate personalization of their experience, motivate pupils to study, enhance retention, improve reading skills, and provide an opportunity to demonstrate their expertise on the issue.

Furthermore, the influence of gender on the utilization of electronic storybooks as information resources has been extensively acknowledged in literature. However, Utulu (2006) pointed out that study on gender disparities in this area is still ongoing. The

literature contains numerous research on human information behavior, which demonstrate that males and females tend to exhibit variances in features when utilizing digital resources. This study investigated the impact of electronic storybooks on the ability of preschoolers to remember and understand new words. It also explored how electronic storybooks affected the motivation of preschoolers to engage in reading. Additionally, the study examined whether gender played a role in the vocabulary retention and reading motivation of preschoolers. Furthermore, the study analyzed whether there was an interaction between the use of electronic storybooks, gender, and the preschoolers' vocabulary retention and reading motivation.

The prevalence of a tepid disposition towards reading among the majority of preschoolers is concerning and has resulted in subpar reading abilities within this demographic. This peculiarity can be attributed to the lack of motivation exhibited by preschoolers when reading is addressed. The retention of vocabulary and the incentive to read are crucial for a child to achieve significant success in reading, since they provide the internal drive to study. In the absence of motivation, there is a high likelihood of experiencing bad academic performance, which can have a detrimental impact on one's educational prospects.

Moreover, the limited ability of toddlers to retain vocabulary might be attributed to certain teaching and learning methods, such as the 'Look and Say' approach and spelling technique. The look and say method has proven ineffective in improving long-term memory among toddlers as it fosters a reliance on the teacher for learning new words. The child who has been exposed to this strategy lacks the ability to independently deduce the meaning of a word. Similarly, the drawback linked to the spelling strategy is that it compels preschoolers to prioritize spelling all words before they engage in reading, without promoting good retention. Currently, conventional printed storybooks are being utilized as educational resources in pre-primary schools, although they may not be as engaging for teaching purposes. Unfortunately, the reported difficulties in retaining information among toddlers can be related to the use of outdated and unengaging instructional media, such as traditional printed storybooks. Given the information provided, it is crucial to investigate other methods that can improve and facilitate the ability of toddlers to remember words and their motivation to engage in reading. The primary focus of this study is to investigate the impact of electronic storybooks on the ability of preschoolers in the Oshimili South Local Government Education Authority, Delta State, to remember and understand vocabulary, as well as their level of interest in reading.

Research Method

The population under research comprises 1,314 nursery three children attending 25 public nursery schools in Oshimili South Local Government Education Authority, Delta State. The group consists of 645 males and 619 females. The three preschoolers in the nursery are currently undergoing the process of transitioning to main school. Mastering proficient reading skills at this stage will significantly benefit their reading instruction at the primary school level. The study's sample comprised 150 preschoolers selected from all 25 public nursery schools under the Oshimili South

Local Government Education Authority in Delta State.

The research employed a multi-stage sample approach, utilizing purposive and simple random sampling techniques. For the initial phase, a purposive sample strategy was employed to select four Government nursery schools within the Oshimili South Local Government Education Authority. The purposive sampling technique will be utilized to ensure a representative sample of the population from intact classes, as certain schools have a smaller number of preschoolers compared to others. For the study, the second stage involved utilizing the simple random selection technique to select four intact classes from four schools. The intact courses were implemented to avoid any disruption to the schools' class arrangements or timetables.

All 150 toddlers from the four entire classes were included. Among this sample, 90 participants belonged to the experimental group while 60 participants belonged to the control group. This is due to the fact that certain classes in the sample contain a greater proportion of preschoolers compared to others. Furthermore, the sample comprised 80 girls and 70 males. The schools included in the study were assigned to either the experimental or control groups using a random selection process. The data collection tools used in this study were custom-designed by the researcher and titled "Effects of Electronics Storybooks on Preschoolers' Retention of Vocabulary and Motivation to Read" (EESPRVMR).

The data collection equipment underwent face validation. The face validity was employed to ascertain the impact of electronic tale books on the vocabulary retention and reading motivation of preschoolers. The EESPRVMR was allocated to a different expert specializing in Childhood Education, Measurement and Evaluation, and Educational Psychology, respectively. Three teachers from a nursery also assisted in validating the device. The professionals assessed the instruments to determine their adequacy based on the age of the respondents and the developmental appropriateness of the questions. This facilitated the researchers in modifying and fabricating the ultimate instruments.

The face and content verified instruments underwent a field testing to verify their suitability. This was done by distributing 30 copies to children in nursery three (3) in two (2) schools under the Aniocha-North Local Government Education Authority. These respondents were not included in the study's population, but they are comparable to the intended respondents. The purpose of this exercise was to assess the appropriateness of the tools and determine their usability for the study. The final packing of the instrument for the study was informed by feedback obtained during the trial testing. The examination was conducted on all the participants, and ongoing data was collected during the experimental evaluation. In order to assess the internal consistency, the collected data was evaluated utilizing the KR 20 method. The data collected were also examined using the Cronbach Alpha technique.

The study employed a quasi-experimental design. More precisely, the design employed a non-equivalent control group design. A quasi-experimental design is a research design that does not allow for random assignment of subjects to treatment and control groups (Nworgu, 2015). A quasi-experimental strategy was selected due to the

utilization of entire classes. Consequently, there was no arbitrary allocation of research participants to experimental and control groups.

The design is represented as below.

Table 1: Quasi – Experimental Design

Groups	Pretest	Treatment	Post-Text
Experimental group	O1	X1	O2
Control group	O1	X2	O2

Where;
O1 = Pretest; O2 = Post-test; X1 = Electronic story books = Treatment-programme on Electronic story books and X2 = Traditional printed books = Treatment-programme on Traditional printed books

Presentation of Results

Research Question 1: Effect of electronic storybooks on preschooler's retention of vocabulary

Table 1: ***Mean Retention Scores on the Effect of Electronic Storybooks on Preschoolers' Retention of Vocabulary for Experimental and Control Groups (N = 151)***

Group	**N**	**Post-test** $\bar{x}$
Experimental	90	97.5
Control	60	77.9
Mean Gain		**19.6**

The study of Table 1 demonstrates the impact of electronic storybooks on the ability of preschoolers to retain language, as indicated by the post-test mean retention scores. The studies additionally demonstrated that the average retention scores of preschoolers in the experimental group are greater than those of their counterparts in the control group. The experimental group exhibits a mean retention score that is 19.6 points higher than the control group. This indicates a favorable impact of electronic storybooks on the ability of preschoolers to retain vocabulary.

Research Question 2: Effect of electronic storybooks on preschooler's motivation to read

Table 2: ***Mean Motivation Scores on the Effect of Electronic Storybooks on Preschoolers' Motivation to Read for Experimental and Control Groups (N = 151)***

Group	**N**	**Post-test** $\bar{x}$
Experimental	90	31.4
Control	60	29.3
Mean Gain		**2.1**

The analysis of Table 1 illustrates the influence of electronic storybooks on the language retention capacity of preschoolers, as evidenced by the average post-test retention scores. The investigations also showed that the average retention scores of preschoolers in the experimental group are higher than those of their counterparts in the control group. The experimental group demonstrates a mean retention score that is 19.6 points greater than the control group. These findings suggest that electronic storybooks have a positive effect on the vocabulary retention of preschool-aged children.

Research Question 3: Influence of gender on preschooler's retention of vocabulary

Table 3: ***Mean Retention Scores on the Effect of Electronic Storybooks on Preschoolers' Retention of Vocabulary for Experimental and Control Groups Based on Gender***

Group	No of Males	Male $\bar{x}$	No of Females	Female $\bar{x}$
Experimental	40	98.0	50	97.1
Control	30	77.2	30	78.7
Mean Gain		**20.8**		**18.4**

The data presented in Table 3 illustrates the impact of electronic storybooks on the ability of preschoolers to retain language. Specifically, it examines the mean retention scores of both the experimental and control groups, categorized by gender. The findings also suggest that the average retention scores of male and female preschoolers in the experimental group are greater than those of male and female preschoolers in the control group. The average increase in retention scores for male and female preschoolers in the experimental group, compared to those in the control group, is 20.8 and 18.4, respectively. This suggests that gender has an impact on the ability of preschoolers to remember and retain words.

Research Question 4: Influence of gender on preschooler's motivation to read

Table 4: ***Mean Motivation Scores on the Effect of Electronic Storybooks on Preschoolers' Motivation to Read for Experimental and Control Groups Based on Gender***

Group	No of Males	Male $\bar{x}$	No of Females	Female $\bar{x}$
Experimental	40	31.7	50	31.2
Control	30	29.5	30	29.1
Mean Gain		**2.2**		**2.1**

The results evaluated in Table 4 demonstrate the impact of electronic storybooks on the motivation of preschoolers to read, as measured by post-test mean motivation scores. The analysis considers both the experimental and control groups, and takes into account the participants' gender. The findings also suggest that the average

motivation scores of male and female preschoolers in the experimental group are higher than the average motivation scores of male and female preschoolers in the control group. The increase in average motivation scores for male and female preschoolers in the experimental group is 2.2 and 2.1, respectively. This demonstrates that gender has an impact on the motivation of preschoolers to engage in reading activities.

Research Question 5: Interaction effect of treatment and gender on preschooler's retention of vocabulary

Table 5: ***Interaction Effect Between Treatment and Gender with Respect to Preschooler's Retention of Vocabulary***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	34.635[a]	4	8.659	433.667	.000
Intercept	4.975	1	4.975	249.147	.000
Group Retention	.015	1	.015	.741	.391
Gender Retention	33.047	1	33.047	1655.150	.000
Scores Retention	.008	1	.008	.381	.538
Group Retention * Gender Retention	.001	1	.001	.037	.848
Error	2.915	146	.020		
Total	394.000	151			
Corrected Total	37.550	150			

Analysis on Table 5 revealed that interaction effect between treatment and gender test mode with respect to preschoolers' retention was not significant given that $F_{(1,146)} = .037$, and $p > 0.05$ ($.848 > 0.05$). As a result, the null hypothesis was accepted.

Research Question 6: Interaction effect of treatment and gender on preschooler's motivation to read

Table 6: ***Interaction Effect between Treatment and Gender with Respect to Preschooler's Motivation to Read***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	34.702[a]	4	8.676	434.712	.000
Intercept	10.934	1	10.934	547.879	.000
Group Motivation	.003	1	.003	.164	.686
Gender Motivation	32.858	1	32.858	1646.461	.000
Scores Motivation	7.760E-6	1	7.760E-6	.000	.984
Group Motivation * Gender Motivation	.020	1	.020	.997	.320
Error	2.914	146	.020		
Total	391.000	151			
Corrected Total	37.616	150			

Information presented on Table 6 shows that interaction effect between treatment and gender test mode with respect to preschoolers' motivation to read was not significant given that $F_{(1,146)} = .997$, and $p > 0.05$ (.320 > 0.05). As a result, the null hypothesis was accepted.

Hypothesis 1: The difference in the post test scores of experimental and control groups regarding electronic storybooks on preschooler's retention of vocabulary is not significant

Table 7: ***Tests of Between-Subjects Effects of Posttest Scores of Experimental and Control Groups Regarding Electronic Storybooks on Preschooler's Retention of Vocabulary is not significant***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13835.721[a]	2	6917.861	55.387	.000
Intercept	1103469.605	1	1103469.605	8834.854	.000
Group Retention	13786.005	1	13786.005	110.377	.000
Gender Retention	.030	1	.030	.000	.988
Error	18485.140	148	124.900		
Total	1250925.000	151			
Corrected Total	32320.861	150			

p < 0.05

The findings presented in Table 7 demonstrate the disparity in post-test scores between the experimental and control groups with respect to the impact of electronic storybooks on the ability of preschoolers to retain vocabulary. The outcome was statistically significant, as indicated by the F-statistic of 110.377 with degrees of freedom (1,104), and a p-value of less than 0.05 ($p < 0.05$). Consequently, the null hypothesis is invalidated, indicating that there is a significant disparity in the post-test scores between the experimental and control groups in terms of the impact of electronic storybooks on the retention of vocabulary in preschoolers.

Hypothesis 2: The difference in the post test scores experimental and control groups regarding electronic storybooks on preschooler's motivation to read is not significant

Table 8: ***Tests of Between-Subjects Effects of Posttest Scores of Experimental and Control Groups Regarding Electronic Storybooks on Preschooler's Retention of Vocabulary is not significant***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	173.169[a]	2	86.585	2.749	.067
Intercept	132888.390	1	132888.390	4218.814	.000
Group_Motivation	168.576	1	168.576	5.352	.022
Gender_Motivation	8.465	1	8.465	.269	.605
Error	4661.851	148	31.499		
Total	145944.000	151			
Corrected Total	4835.020	150			

p > 0.05

Table 8 shows the difference in the post test scores of experimental and control groups regarding electronic storybooks on preschooler's motivation to read. The result was significant given that $F_{(1,104)} = 5.352$, and $p < 0.05$ (.022 < 0.05). Therefore, the null hypothesis is rejected, hence, the difference in the post test scores of experimental and control groups regarding electronic storybooks on preschooler's motivation to read was significant.

Summary of Findings

1. There is a positive effect of electronic storybooks on preschooler's retention of vocabulary
2. There is a positive effect of electronic storybooks on preschooler's motivation to read
3. The influence of gender on preschooler's retention of vocabulary is very positive
4. The influence of gender on preschooler's motivation to read is very positive
5. The interaction effect of treatment and gender on preschooler's retention of vocabulary is not significant
6. The interaction effect of treatment and gender on preschooler's motivation to read is not significant
7. The difference in the post test scores of experimental and control groups regarding electronic storybooks on preschooler's retention of vocabulary is significant
8. The difference in the post test scores experimental and control groups regarding electronic storybooks on preschooler's motivation to read is significant.

Discussion of Findings

The study's findings indicated that preschoolers in the experimental group had higher mean retention scores compared to those in the control group. The experimental group exhibited a significant improvement, as seen by a 19.6 rise in their mean retention score compared to the control group. Consequently, electronic storybooks have a beneficial impact on the ability of preschoolers to remember and understand words. The results corroborated the findings of Ihmeidon (2014), who similarly observed that individuals exposed to electronic storybooks had greater enhancements in

vocabulary compared to those exposed to traditional printed storybooks. Korat, Graister, and Altman (2019) proposed that the use of technology, such as electronic tale books, in the classroom can facilitate the connection between home and school literacy.

The findings demonstrated a favorable impact of electronic storybooks on the motivation of preschoolers to engage in reading. Electronic storybooks have a positive influence on the motivation of preschoolers to read, as compared to the control group. Ganea and DeLoache (2011) have provided evidence that electronic storybooks had the capacity to assist preschoolers in developing reading skills and fostering a desire to read.

The study's findings indicate that the average retention scores of both male and female preschoolers in the experimental group were higher compared to those of male and female preschoolers in the control group. The mean retention scores of the male and female preschoolers in the experimental group were higher than those of the control group. These findings indicate that electronic storybooks have a positive effect on the ability of preschoolers to remember and understand words. This aligns with the findings of Utulu's (2006) research, which suggests that gender may play a role in affecting the utilization of electronic storybooks as sources of knowledge, as extensively documented in the literature.

The study's findings indicate a highly positive correlation between gender and preschoolers' enthusiasm to read. The average motivation scores of male and female preschoolers in the experimental group are greater than the average motivation scores of male and female preschoolers in the control group. This conclusion contradicts the findings of Chukwu (2002), who discovered that male children exhibit a greater level of enthusiasm and drive in reading. Chukwu (2002) discovered that males displayed a greater degree of interest and motivation in the subject compared to females who were subjected to the same research conditions.

The study also found that the combined impact of treatment and gender on the retention of language in preschoolers is not statistically significant. Both male and female toddlers showed no impact from the combination of their gender and therapy. Nonetheless, both male and female toddlers who were exposed to electronic storybooks had higher average retention rates compared to their peers who were exposed to traditional novels.

The study's results indicated that the combined influence of therapy and gender on preschooler's motivation to read is not statistically significant. The motivation of preschoolers to read was influenced by both the care they received and their gender.

Final Thoughts

The study's findings lead to the following conclusions. The findings provided empirical evidence that electronic storybooks are very advantageous, efficient, and appealing tools for enhancing preschoolers' retention and motivation to read. This can be inferred from the characteristics of electronic storybooks, since they offer toddlers an engaging pastime that simultaneously enhances their ability to remember information and their desire to engage in reading.

Recommendations

The researcher presents the following recommendations based on the study's findings and their educational implications:

1. The study has demonstrated that electronic story books have a significant impact on preschoolers' ability to remember vocabulary and their desire to engage in reading. Consequently, teachers should utilize electronic story books to enhance preschoolers' vocabulary retention and motivation to read, as these books have proven to be effective in achieving these outcomes.
2. Educational institutions tasked with training pre-school educators should integrate the utilization of electronic storybooks into their curriculum. This will enhance the proficiency of pre-school teachers in utilizing electronic storybooks as a teaching tool.
3. In-service teachers should be provided with seminars, workshops, and training sessions to enhance their understanding of utilizing electronic storybooks in their teaching.
4. The schools require better electrical supply, so the implementation and provision of solar energy should be considered to optimize the effectiveness of electronic books.
5. The government should provide schools with current electronic gear such as PCs, PowerPoint, and slide displays in order to facilitate the efficient utilization of electronic storybooks.
6. The provision of computers and a reliable source of electricity by the Federal government, state governments, municipal governments, and corporate entities is necessary to enable the use of electronic storybooks in schools.

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