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Research Article

Enhancing Reading Comprehension of Grade Three Pupils of Quinlogan Elementary School Through Multimedia and Scheme-Based Reading Strategy

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Abstract

The development of technology like multimedia in education plays an essential role in implementing education to develop the pupil's learning like reading comprehension. Thus, this study aims to enhance the reading comprehension level of non-reader pupils of grade three in Quinlogan Elementary School using the multimedia and scheme-based reading strategy. Study revealed that this strategy was effective and majority of the respondents were significantly improved their reading comprehension level. Through the learning with integration of multimedia scheme-based reading strategy, students' comprehension level was improved, and it had helped students to develop a better understanding and ideas. Based on the finding of the study, the researcher would recommend teachers should implement multimedia scheme-based reading strategy in enhancing the reading comprehension level.

Keywords: Scheme-based Strategy, Phil-IRI, Pre And Post-Test

Introduction

Teachers always think of learner's welfare despite of many challenges they are facing in the academe specially in this so called New Normal System of Education. One of their focus is to enhance the reading comprehension level of each pupil amidst pandemic. Less contact to learners implies less learning they may acquire. Without the guidance of teachers in dealing with the self-learning modules, reading comprehension is a must for them to understand the lessons and do the given activities correctly. The researchers are eager to make some innovations to lessen the problem regarding poor reading comprehension of learners specifically the third graders who are consider are in the crucial stage when the students make the leap from learning to read and reading to learn (Gajria et al., 2000).

As part of School Reading Program, the Quinlogan Elementary School teachers conducted Phil-IRI to assess the reading ability of learners and it was found out that Grade Three got 83% frustration level showing poor reading comprehension. This result is alarming, the reason why researchers want to pursue this action research. A study claims that reading comprehension is one of the most difficult cognitive tasks that people undertake, making it challenging to teach, assess, and conduct research on (Elleman & Oslund,2019). Thus, reading comprehension needs ample time, effort and concentration. It is not a one-day process rather requires a lot of patience just to make it richer in the minds of school graders. Reading comprehension affects by many factors. Researchers claim that efficient word recognition plays the foundational role in reading comprehension (Perfetti & Stafura, 2014). As children get older, teachers assume that they can read and decode well. In contrast, Parrish (2020) concluded that started around third grade teachers begin to notice some pupils who decode texts fluently but are not understanding. Struggling readers' comprehension is often impaired by limited reading vocabulary according to Brann, et al., (2009).

As learners advance through grades and encounter more complex texts, they need additional support according to Therrien et al., (2006). Multimedia reading materials and environments offer a variety and flexible support for learners (Hall and Barnes, 2017). To help them become comfortable with multimedia, it is useful to incorporate it in learning instructions whenever possible (Mansett-Williamson et al., 2008). These citations trigger the researchers to get away from traditional way of teaching reading among learners and make use of new technology which is more engaging and motivating nowadays. The purpose of this study is to address the poor reading comprehension of learners specifically the third graders.

There were many researches and studies conducted regarding issues about reading comprehension but still it is leading in the list of problems arised in school. Knowing the importance of reading comprehension in honing the learners' intellects, Quinlogan Elementary School researchers are determined to try this innovation, the Multimedia Sceme-Based Reading

Strategy.

Research Questions

This study aims to enhance the reading comprehension of Grade Three pupils. Specifically, it seeks to answer the following questions:

1. What is the reading comprehension level of Grade Three pupils in English?
2. Is there a significant difference before and after conducting Multimedia Scheme- Based Strategy?
3. What are the barriers encountered during the implementation of the intervention?

Literature Review

Why reading comprehension significant?

Reading comprehension is one of the most complicated cognitive tasks in which people participate, according to Elleman & Oslund (2019), making it challenging to teach, assess, and research. Students in the United States struggle with relatively simple literacy tasks like finding pertinent information to ascertain a text's primary concept or drawing simple inferences, demonstrating their inability to understand the context of such reading materials. How much more in Philippines scenario whereas English is just our secondary language? The fact that Filipino learners mostly use their native language in communication, reading and understanding English text seems unsound. The aforementioned researchers also cited Perfetti & Stafura (2014), who found that when compared to skilled comprehenders, poor comprehenders exhibit difficulties with generating topic-related inferences, integrating words into context, resolving contextual references, and providing logical answers to inference questions.

According to Hulme & Snowling (2013) and Almutairi (2018), reading comprehension abilities are crucial for success in both academics and daily life. Reading comprehension is the foundational skill for understanding all academic material in students' academic life. By understanding the texts, learners could easily grasp all the information and will be able to answer questions related to. Furthermore, they quoted from Hoeh (2015) the importance of reading comprehension in everyone’s future, like job seeking, understanding housing contracts, newsletters reading and the like.

Reading Strategies Aid Comprehension

A study of Channa et al., (2015) revealed that teachers scaffold develops reading and comprehending abilities of students. It is evident that strategies used in reading comprehension is significant. A clear reading technique and procedure will serve as an avenue for avenue for learners to cope and understand the texts they are reading. The processes use by the teacher must be precise to positively affect reading ability.

Fuchs et al. (2018), reported by Elleman & Osland (2019), the majority of scholars and professionals concur that typical reading comprehension tests don't adequately capture the understanding process. It is expected that educators should spend extra efforts to find some ways on how to develop love of reading among learners.

The study of Muijselaar et al., (2017) showed that there was a unique effect of reading strategies on reading comprehension. Using the simple to complex scheme in teaching reading resulted to positive effect in learners reading comprehension level. A span of time is another thing to be considered in scheme based strategy. Elleman & Willingham (2017) as cited by Mujiselaar et al., (2017) a few hours of inference instruction can be effective and being suggested that extended practice may be necessary. Thus, strategy must be clear to both teacher and learner for adjustments purposes.

Multimedia in Reading Instruction

One of technology's most crucial applications, according to Gilakjani (2012), is that it makes it simple for teachers to incorporate multimedia into their lessons. Some learners are visual learners while others are auditory learners. In this case, the use of multimedia in teaching reading may be useful enough. Multimedia in teaching reading may be useful enough. Multimedia provides complex multisensory experience as teachers give information through text, graphics, images audio and video. These help arouse learners’ interest specially in reading activity.

According to Brann et al. (2009), multimedia reading environments and materials provide a variety of customizable aids. While reading complex literature in their subject areas, students may find these assistance to be extremely helpful. Gaining students' interest is crucial for improving their reading skills, and multimedia features should be used to their full potential. The ultimate goal of reading is understanding, but teaching comprehension is notoriously challenging. Through the use of online resources, animated reading coaches, and e-tutors who

engage in questions, prompting, and think-alouds, multimedia settings can mimic and reinforce tested teacher-led strategy instruction.

Garcia et al. (2017) came to the conclusion that using multimedia effectively increases the effectiveness of the educational process since students are less likely to make mistakes when responding to questions. This supports the claims made by other researchers that using multimedia to supplement reading instructions can be very helpful.

Methodology

Participants

The Grade Three pupils of Quinlogan Elementary School were the respondents of the action research. An initial assessment done and became the baseline of this study.

Instruments of the Study

Grade Three pupils undergone Phil-IRI Pre Test. All pupils fell on frustration level were the respondents. Phil-IRI Template served as a tool in measuring the level of comprehension of the respondents in Pre-Test and Post Test.

Procedures

The respondents grouped into three in the designated purok centers within the community. Each group subdivided into three under the supervision of three facilitators. The researchers prepared downloaded reading activities from DepEd Commons and other DepEd recognized websites. Every group used laptop and speaker wherein the researchers served as facilitator in the activity.

On then the first session, the respondents were given Phil-IRI Pre-Test. Introduction of Letter Sounds was done on the second week, wherein, the pupils watched the downloaded reading lessons that were played through laptop. On the third week, reading of Basic Sight Words was facilitated. In this approach, the E-Tutor modelled the correct pronunciation of words. Next, the learners did the activity together with the E-Tutor. Lastly, the learners performed the task individually.

Reading phrases and sentences was conducted on the fourth and fifth week. On the sixth and seventh week, respondents read short stories and answered WH-questions based from the stories on the eighth and ninth week respectively. On the tenth to twelfth week, the respondents answered HOTS questions based from story read. Phil-IRI Post Test was administered on the thirteenth week. Lastly, data analysis was done.

The activity was conducted every Tuesday and Thursday of the week for two hours in each session within three months period. The safety of the respondents and the researchers were assured by following health protocols imposed by the Inter Agency Task Force (IATF).

The result of Phil-IRI Post Test was revealed the reading comprehension level of the respondents while T-test was used to know the significant difference before and after conducting the Multimedia Scheme-Based Reading Strategy. Descriptive statistics such as; mean, total percentage and Paired T-Test were computed using Statistical software. Barriers encountered during the implementation of the program were identified through observation and data recording.

Results

Twenty five non-readers of grade three pupils were selected as respondents of this study. During week 1, all respondents were assessed for their reading comprehension level using Phil-IRI Pre-Test. The assessment revealed that all 25 respondent pupils fall in the Frustration level both in word recognition and reading comprehension.

The pupils were then subjected to series of multimedia and scheme-based reading strategies to improve their reading comprehension. The pupils were assessed after each strategies were employed. On week 2, letter sounds were first introduced to the pupils. The assessment on week 1 revealed that 6 pupils improved their reading comprehension to Instructional level, while 19 pupils were still in Frustration level. On week 3, the pupils undergone reading of basic sight words.

The assessment on week 2 revealed an increased number of pupils in the Instructional level with 8 pupils, while 17 pupils were still in Frustration level. On week 4 and 5, the pupils were allowed to read phrases and sentences using a laptop. Three pupils improved to Independent level, while 10 pupils fall in the Instructional level and 12 pupils were still in Frustration level. On week 6 and 7, the pupils were allowed to read short stories using a laptop. The assessment revealed an increased number pupils in the

Independent level with 5 pupils, while 9 pupils were in Instructional level and, 11 pupils were still in Frustration level. On week 8 and 9, pupils started answering WH-questions based from the stories they read.

The assessment revealed a continuous increase in the number of pupils in the Independent level with 8 pupils, while 8 pupils were in Instructional level, and 9 pupils in Frustration level. On week 10 and 11, the last strategy was employed by letting the pupils answer HOTS questions based from the stories they read. The assessment revealed that 9 pupils were in Independent level, 10 pupils were in Instructional level, and only 6 pupils were in Frustration level (Figure 1).

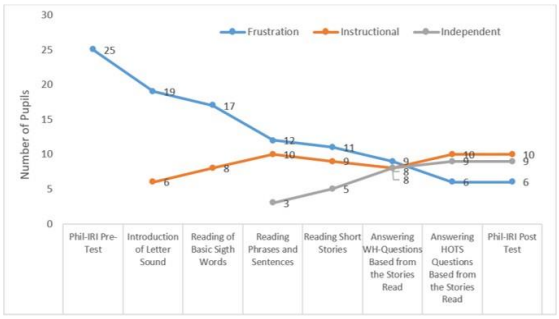

Figure 1. *Results of pre and post-test on reading comprehension level of grade three students on intervention activities.*

On week 13, the reading comprehension of all respondents after subjecting to multimedia and scheme-based reading strategies were assessed using Phil-IRI Post Test. The post test revealed that in word recognition, 19 pupils were in instructional level and 6 pupils were in frustration level. Meanwhile, in reading comprehension, 9 pupils were in independent level, 10 pupils were in instructional, and 6 pupils were in frustration level (Figure 2).

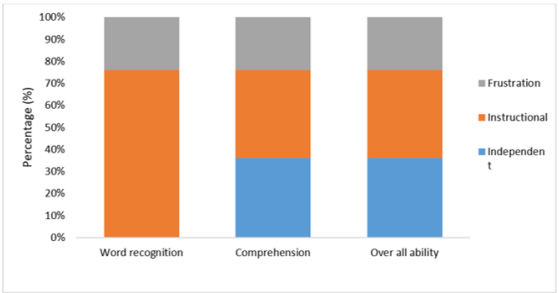

Figure 2. *Results of Post-test of grade three pupils*

Results of the statistical analysis showed that post-test scores of pupils, both in word recognition and reading comprehension, were significantly higher than their pre-test scores ($P<0.01$) (Table 1). Hence, this result indicated that the use of multimedia and scheme-based reading strategies can help improve the reading comprehension of pupils.

Table 1. *Paired T-Test of Pre and Post-test scores in word recognition and comprehension.*

		Mean (±Standard Deviation)	*t value*	*P value*
Word recognition	Pre-test Score	20.48 (±14.25)	-11.83	0.000
	Post-test Score	50.40 (±11.26)		
Comprehension	Pre-test Score	1.40 (±1.12)	-12.39	0.000
	Post-test Score	3.76 (±1.74)		

Few challenges were encountered during the implementation of the intervention which were uncontrolled by the respondents and the teachers. These includes the lack of interest of some respondent on the video lessons which challenges the teachers to get their attention. Some respondents also failed to attend the reading sessions regularly due to sickness and tardiness. The overlapping of schedules of teachers due to virtual meetings, webinars, urgent reports and emergency family problems also hindered the regular conduct of the reading sessions. The sessions were also delayed by natural events such as bad weather.

Discussion

Technology advancement in education is crucial to the implementation of education (Chen and Huang, 2019). Because students may access material whenever and wherever they are and participate actively in the learning process, technology can support the teaching and learning process (Sadiyoko, 2017). ICT growth and initiatives can make revolutionary changes in education and maintain the improvement of learning quality (Shanmugam and Balakrishnan, 2017). One key factor in ensuring graduates' acceptability in educational institutions is the development of technical communication (Alias et al., 2019). Due to the blending of entertainment with education that creates the new learning concept known as edutainment, the usage of multimedia can enable students to participate actively in the learning process (Harun and Tasir,

2013). In e-learning, multimedia can encourage students' critical thinking, foster an engaging learning environment, and improve students' reading abilities (Jamian et al., 2012). The usage of multimedia can assist in changing pupils' attitudes (Hashim, and S. Othman, 2012; Huff 2015). Multimedia has the power to not only change students' attitudes but also their academic performance and level of enthusiasm in studying (Thomas, 2014)

The results of this study support (Ercan, 2014), which found that students who participate in multimedia learning receive higher grades. According to earlier studies, using multimedia can boost knowledge and comprehension (Chu et al. 2019). Learning using multimedia is excellent at raising student achievement (Thomas, 2014). Audio-visual instruction is more efficient at teaching students and can help with idea and concept communication (Samaras et al, 2008). In addition to enhancing communication and learning content retention, effective multimedia learning materials can also boost student interest and curiosity (Syadri, 2015).

This study concurs with Leow and Neo (2014), who demonstrated that the inclusion of multimedia-mediated live instruction could enhance students' learning outcomes. Additionally, the same study's findings revealed that students were seen to be more driven and actively involved in their own learning. The study (Shabiralyani et al., 2015) also found that using visual aids effectively could increase students' thinking, enhance the learning environment, and replace boring learning environments.

Additionally, studying with multimedia-based learning resources allows for the observation of individual learning variances (Betrancourt, 2012). This assertion explains the fact that students who use multimedia and a reading approach based on a scheme perform better on average in the post test of the Phil-IRI tool than they did in the pre-test. It goes without saying that every student has a unique learning style and that not every student can pick up new material quickly. However, because they have the option to slow down, speed up, go backwards, or pause the multimedia learning material, students have more flexibility to manage their own pace of learning. Additionally, multimedia-based learning resources can incorporate the senses of the students into the learning process. When multimedia is incorporated into a student's learning process, their feeling, audition, vision, and mind are all actively focused (Vaughan, 2006)

The results of this study also demonstrated that Quinlogan Elementary School students in grade three benefited from using a student-centered learning strategy to improve their reading comprehension. Students were discovered to be more active in their learning, which helped to increase the post-test score. This method has helped students study science courses in more relevant ways and can help kids develop into proactive, self-directed learners.

Conclusion

The use of multimedia scheme-based reading strategy had much-improved pupil's' reading comprehension of the non-reader pupils of grade student of Quinlogan Elementary School. This strategy allow students to learn at their own pace and address their different senses. Through the learning with integration of multimedia scheme-based reading strategy, students' comprehension level was improved, and it had helped students to develop a better understanding and ideas. Based on the finding of the study, the researcher would recommend teachers should implement multimedia scheme-based reading strategy in enhancing the reading comprehension level. The conventional teaching approach should be substituted in order to curb the downward trend of comprehension ability of our students in our country.

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