

Context Clues and Reading Comprehension

¹Emejidio, C, ²Gepila Jr.

ABSTRACT--*There is a lingering progress in reading comprehension skill compared to other subject skills. Unfamiliar word is one of the factors that affects one's reading comprehension. A reader cannot comprehend effectively if he/she does not know the meaning of a certain word. The objective of the study was to find out the use of context clues towards reading comprehension of Jose Abad Santos High School. Particularly, the researchers' goal was to know how context clues aid in improving the reading comprehension difficulties of the students. The 15 participants were chosen according to convenient sampling technique and from the section 22 of Jose Abad Santos High School at Binondo, Manila. The students were given a pre-test that served as a diagnostic test of the seven-day treatment which involves exploring the participants' use of context clues in reading comprehension for seven days. The post-test was given to the students after the treatment used was effective. The pre-test obtained a mean of 10.93 and the computed standard deviation is 3.432. Then, the post-test obtained a mean of 20.60 and the computed standard deviation is 4.405. The researchers concluded that the students need improvement due to their low initial performance. After conducting the treatment, the post-test mean is higher than the pre-test mean. Hence, it can be concluded that the observed differences between the two means are significantly different. With this, the researchers recommend*

Keywords-- *Context Clues, Reading Comprehension, Unfamiliar Words*

I. INTRODUCTION

There is a lingering progress in reading comprehension skill compared to other subject skills, especially in Mathematics, for the past twenty years according to the National Assessment of Educational Progress (NAEP) exams (The Problem with Reading, 2015). However, despite the intensive teaching to develop a better level of comprehension, there are still issues on what to teach, what lessons are being disregarded and how to develop strategies to be used in teaching in order to improve reading comprehension (Moving from the Old to the New: Research on Reading Comprehension Instruction, 1991). As the assessment of the National Achievement Test was cited in Phil Star Global (2010), the reading comprehension level improvement equates to 11.67% from 2006 to 2009. This data serves as a wakeup call that the students of this generation have difficulty in reading. The number also shows that there is only approximately 3-4% improvement percentage each year which can be gauged to low competency of Filipino students.

Increasing the students' vocabulary reservoir is fundamental in reading comprehension and is essential in the education process. In this case, the inadequacy of vocabulary knowledge can be a determinant of poor reading comprehension (Nagy, 1998). Poor reading comprehension is manifested with poor reading skill together with wrong pronunciation (Cayubit, 2012). Therefore, vocabulary knowledge is a reading skill that plays a significant role in developing Reading Comprehension.

¹Polytechnic University of the Philippines, ecgpilajr@pup.edu.ph.

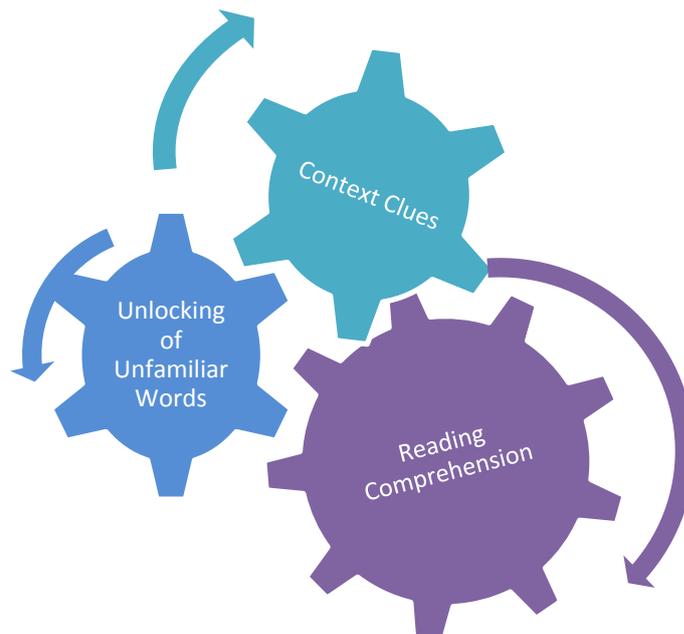
²Polytechnic University of the Philippines, jrgepila@gmail.com.

This study aims to know the initial performance of the students in using context clues in reading comprehension through the use of their pre-test scores and their final performance after conducting the seven-day treatment. Also, this study aims to find out if there is any significant difference between the pre-test and post-test scores.

Theoretical Groundings

This study is supported by three theories: (1) Schema theory that describes how people organize the raw data of everyday experiences into meaningful patterns. This theory will help the present study because in order for a reader to use context clues, he should have background knowledge of his own language. The more background knowledge a reader has that connects with the text being read, the more likely the reader will be able to make sense of what is being read (Butcher & Kintsch, 2003; Schallert & Martin, 2003); (2) Piaget's Theory of Cognitive Development supports that schema is a greater factor in reading comprehension, and (3) Cognitive Flexibility Theory which states that knowledge cannot be oversimplified, knowledge is constructed, and knowledge is interconnected. These theories are significant in this study as they picture out how the reading process occurs and supports how context clues help in reading comprehension.

Theoretical Background



The major concept of the study is converged to the use of context clues towards reading comprehension skills of the Grade 9 students of Jose Abad Santos High School. The conceptual framework represents the significance of context clues, which serves as the nucleus of the study. The gears are supported by the theories presented in the theoretical groundings. These theories are Piaget's Theory of Cognitive Development, Schema Theory and Cognitive Flexibility Theory. These theories and gears work together to improve the reading comprehension of the students.

Review of Related Literature and Studies

The ability to read well, as Bond et.al (1994) cited, is a valuable attribute because reading is a natural phenomenon we encounter from day to day living, an inevitable process we consciously and unconsciously perform. On the other hand, according to Rubin (1995), reading comprehension is a complex intellectual process involving a number of abilities. The two major abilities involved were word meanings and verbal reasoning. Without word meaning and verbal reasoning, there will be no reading comprehension and without reading comprehension there will be no reading.

Children's reading motivation can be impacted by a number of factors like interest, efficacy, and goals which are important untapped dimensions for improving engagement reading because these factors may be child-specific they may offer particularly (Middleton, 2011). Also, there are four factors in identifying conditions that influences comprehension elimination as stated by Duffy (2009) which are the elimination of decoding, creation of interest and purposes, matching of content learning tasks to the experience and abstract reasoning powers of the students.

Different types of contextual clues are significantly effective in better comprehension and understanding of unknown vocabularies in post-test. Moreover the learners were able to predict the meaning of unknown vocabularies better if contextual clues were alternatively synonyms, definitions-explanations, antonyms (Alikhademi, 2013).

II. METHODS

The researchers used pre-experimental research in a one-group pre-test/ post-test design. The one group pre-test/post-test design justifies the important comparisons between the pre-test and post-test scores for each participant. This design involves advertising for volunteers for the experiment, administering a pre-test, exposing the participants to the treatment and administering a post-test.

Pre-experimental research in the one group pre-test post-test design was used to describe the purpose of the study which was to obtain an overview of the use of context clues towards the reading comprehension skills of Grade 9 section 22 students of Jose Abad Santos High School.

In this study, the researchers used pre-test, a seven-day treatment and post-test. The pre-test serves as a diagnostic test and the seven-day treatment involves exposing the participants to the use of context clues in reading comprehension. The post-test will measure if the treatment had been effective. The one group pre-test post-test involves comparison of scores of the pre-test and post-test.

Population, Sample size, and Sampling technique

This research is based on Convenient Sampling technique because the researchers are not in control of the students' attendance, so only those students who are present when the pre-test was conducted are the respondents of the study.

Description of the Participants

The participants of this study are the 15 Grade 9 Section 22 students of Jose Abad Santos High School. These students belong to the lowest section of School Year 2015- 2016. Jose Abad Santos High School arranged their year level sections homogenously. The researchers seek to know the extent to which context clues can be used to improve the students' reading comprehension

Research Instruments

The researchers used a test as the instrument of the study, since the purpose of test is to measure the nature and extent of individual differences (Salkind, 2003). The researchers used Multiple-choice achievement tests. The test that was employed by the researchers contains 40-item objective questions. This test stands as the helping hand of the researchers in measuring the respondents' knowledge on context clues. Insofar as the researchers are concerned, the present study is an all-embracing experimental research where the researchers conducted a pre-test and post-test.

The researchers used the New Dale-Chall, 1948 readability tool to determine the level of the given text. The New Dale-Chall readability tool uses its own graded word list to determine potential difficult words in the text and then calculates the appropriate grade level based on the number of difficult words. It is a reliable formula to score any type of text for 4th grade and above.

Statistical Treatment of Data

The mean, standard deviation and t-test were the statistical tools utilized in the study to compare the performance of the participants in their pre-test and post-test scores. The t-test was used to determine the significant differences between pre-test and post-test performance of the participants.

The formula for computing the mean of the scores of all the students for pretest and posttest:

$$\bar{X} = \frac{x_1 + x_2 + x_3 \dots x_N}{N}$$

Where:

\bar{X} = the Mean

x_1 = the score of student 1

x_2 = the score of student 2

x_3 = the score of student 3

x_n = the score of the last student

N = total number of the students

The Dependent means t-test (Paired t-test or the repeated measures t-test) is used when dealing with data from only one group of subjects, that means, each subject obtains two scores under different conditions. The objective is to determine whether the difference between means for the two sets of scores is the same or different.

FORMULA OF THE DEPENDENT t-TEST

$$t = \frac{\bar{d}}{\frac{sd}{\sqrt{n}}}$$

The **top part** of the equation is the sum of the difference between the two means divided by 'n' or the number of subjects

The **bottom part** of the equation is the **Standard Deviation (sd)** which is a measure of the variability of dispersion of the scores divided by the square root of 'n' or the number of subjects.

The researchers used scales showed in the table below to classify the following scores of the students towards the use of context clues in the given test.

Table 1: Scales on Percentage for the Test: Unlocking Vocabulary with the Types of Context Clues

SCORE	DESCRIPTOR
0-3	Poor
4-7	Fair
8-12	Good

The researchers used the scales given in the table 2 to identify the level of readers according to the scores gathered from the students' test.

Table 2: Scales on Percentage for the Overall Test

Descriptor	Post-Test Scores
Poor Reader	0 – 13
Fair Reader	14 - 26
Good Reader	27 - 40

III. PRESENTATION AND ANALYSIS OF RESULTS

The following tables and figures are composed of the data gathered by the researchers from the result of the participants' pre-test and post-test scores. These data are carefully examined and presented statistically to expose the significance and relevance of this study.

Table 3 shows the highest score, 20, with the equivalent percentage of 50%. Whereas the lowest score is 6 equivalent to 15%. The scores indicate that most of the students got scores lower than half of the number of exam.

Table 3: Initial Performance: Pre-test Scores and the Equivalent Percentage Scores of the Students

STUDENT	POST TEST SCORES	PERCENTAGE
1	15	37.50
2	18	45.00
3	22	55.00
4	29	72.50
5	18	45.00
6	27	67.50
7	18	45.00
8	27	67.50
9	23	57.50
10	19	47.50
11	20	50.00
12	17	42.50
13	18	45.00
14	23	57.50
15	15	37.50

Table 4: Final Performance of the Grade 9 students in Section 22

STUDENT	PRE TEST SCORE	PERCENTAGE
1	11	27.50%
2	6	15.00%
3	16	40.00%
4	20	50.00%
5	9	22.50%
6	11	27.50%
7	10	25.00%
8	11	27.50%
9	10	25.00%
10	14	35.00%
11	10	25.00%
12	9	22.50%
13	9	22.50%
14	8	20.00%
15	10	25.00%

Posttest Scores and the Equivalent Percentage Scores of the Students

Table 5 reveals that the pre-test scores of the respondents improved in their post-test. The scores showed that the seven-day treatment had effectively taught the students the use of context clues. In a similar study, Jensen (2009) explained that context clue instruction is effective in improving abilities to determine the meaning of unknown vocabulary words

Table 5: Comparison of Pre-test and Post-Test Scores of the Students

STUDENT	PRE TEST SCORES	POST TEST SCORES
1	11	15
2	6	18
3	16	22
4	20	29
5	9	18
6	11	27
7	10	18
8	11	27
9	10	23
10	14	19
11	10	20
12	9	17
13	9	18
14	8	23

15	10	15
----	----	----

Table 6: Level of Proficiency in Reading Comprehension of the Participants on Pre-Test

Descriptor	Post-Test Scores	Frequency	Percentage (%)
Poor Reader	0 – 13	0	0.00
Fair Reader	14 - 26	12	80.00
Good Reader	27 - 40	3	20.00
Total		15	100.00

Table 6 presents the proficiency level of the respondents based on the gathered pre-test scores. The table shows that 80% of the students gained 0-13 scores which can be categorized as ‘Poor’ readers. While, 20% of the students acquired 14-26 scores which can be categorized as ‘Average’ readers.

Table
Level

Descriptor	Pre-test Scores	Frequency	Percentage (%)
Poor Reader	0 - 13	12	80.00
Fair Reader	14 - 26	3	20.00
Good Reader	27 - 40	0	0.00
Total		15	100.00

7:
of

Proficiency in Reading Comprehension of the Participants on Post-Te

Table 7 presents the proficiency level of the respondents based on the gathered post-test scores after the researchers conducted a seven-day treatment. The table shows that none of the students gained 0-13 scores which can be categorized as 'Poor' readers, and 80% of the students acquired 14-26 scores and are categorized as 'Average' readers. Then, 3% of the students got 27-40 scores, considered as 'Excellent' readers. Thus, the results show a significant effect on the experiment done to the students as they achieved higher scores compared to their previous scores. Similarly, in a study conducted by Kolahi et al. (2013), it revealed that the different types of contextual clues are significantly effective in better comprehension and understanding of unknown vocabularies in post-test. This means that the use of context clues helped the students to be expand their vocabulary.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the summary of findings of the study, the following conclusions are hereby drawn:

The initial performance of the students based on their pre-test scores in the aspect of synonyms, antonyms, definition and example were poor and needs improvement. It can be concluded that the respondents have limited vocabulary knowledge. The students' ability to understand the given test is poor and they lack awareness in the use of context clues to unlock difficult words and achieve reading comprehension.

The final performance of the students in using context clues in their reading was determined by giving the post-test after the conducted treatment. In the aspect of synonyms, the students learned its use in reading with the help of paraphrasing is effective in improving the respondents' reading comprehension has been effective. This is to increase the students' word knowledge. It also enabled them to translate and give explanations to ideas in their own words (Djopa, 2003). In the aspect of antonyms, students learned to use its opposition as an important principle governing a language's internal structure, at least within its lexical store (Sabourin, 1998). In terms of definition, the students learned that giving the definition of an unfamiliar word within the text or on how it was used in its context leads them toward reading comprehension. Lastly, when students learned to use examples that illustrate important facets of the meaning of a new word. Students can also be asked to generate examples and non-examples, which will both tie in the new word Teaching Vocabulary with familiar concepts and experiences, and bring to light possible misunderstandings (Nagy, 2007).

The students received higher test scores than before learning context clues. It can be concluded that there is an improvement in the students' performance after taking the treatment given the comparison of the pre-test and

post-test results. According to the study conducted by Jensen (2009), context clue instruction is effective in improving students' abilities to determine the meaning of unknown words. His study revealed that after learning about context clue instruction, students' ability to use context to learn unknown words was improved. Students also increased their level of word knowledge. A study by Kolahi et al. (2013) revealed that the different types of context clues are significantly effective in better comprehension and understanding of unknown vocabularies. However, teaching vocabulary can enhance comprehension of text if the kind of instruction provided helps students build meaningful associations to their knowledge base and more than a brief definition is provided (Baumann, Kame'enui & Ash, 2003). There is an improvement between the pre-test and post-test scores of the students after they have undergone a seven-day treatment. Thus, it can be concluded that the use of context clues in relation to their reading comprehension is effective. It can be seen on the findings that being categorized from poor reader in pre-test, students became average readers in the post-test. The change or improvement of the scores revealed that the seven-day treatment appears to be effective towards the respondents' reading comprehension. The results found are similar with the study conducted by Kolahi et al. (2013) which revealed that there are statistically significant differences between the experimental group, who received treatment and the control group who do some exercises without regarding contextual clues.

Then, the post-test mean is higher than the pre-test mean, which indicates improved performance of the students in reading comprehension using context clues. The standard deviation for the pre-test is also higher than the standard deviation in post-test. Based on the results of the data, there is a significant relationship between the pre-test and post-test scores. Hence, it can be concluded that the observed difference between the two means is statistically significant.

And based on the conclusions of the study, the following recommendations were made:

The researchers recommend readers to learn context clues and apply these in reading to comprehend the text better and understand the meaning of difficult words. Also, students who are having difficulties in comprehending a text are advised to practice the use of varied types of context clues while reading. Context clues may help them understand certain words in the text that can lead to better comprehension of the text. The researchers also suggest that students engage themselves in reading activities like playing vocabulary games, watch novel based English television series and movies to stimulate reading that will help them develop their reading comprehension skill.

Most of all, students are recommended to consider familiarization of the different types (synonyms, antonyms, definition, example) of contextclues for easier decoding of the word meanings.

The researchers advise the parents to allot at least three to four hours a day with their children to read. This is to enhance their children's reading comprehension skills. Also, the parents are recommended to encourage their children to read and to provide reading materials like books, magazines and newspapers that can motivate them to read more, enrich their vocabulary knowledge and enhance their reading comprehension skills.

The researchers recommend the teachers to encourage their students to read more by giving them more reading materials. Moreover, teachers are suggested to orient and teach the students about the types (synonyms, antonyms, definition, example) and the correct use of context clues to aid the reading comprehension of the students.

The researchers highly recommend teachers to use context clues in teaching reading comprehension to the students in order to unlock difficult words that may lead to better understanding of the text. Teachers may also

consider teaching different types of context clues such as synonyms, antonyms, definition, and example through their application in reading texts.

The community, on the other hand, is advised to conduct reading programs particularly to high school students and to provide reading materials and tools that will help them enhance the reading comprehension skill of the students. The community might consider this during summer vacation.

Finally, future researchers may conduct further studies about the use of context clues in reading comprehension, the different types of context clues and their corresponding roles, and also their relevance to the society. Future researchers may also study context clues to improve other skills of the students and to discover more about the functions and use of context clues.

Most of all, the researchers suggest the future researchers to conduct a broader and wider scope of the same topic.

REFERENCES

1. Anderson, J. (1990). Cognitive Psychology and its Implications (3rd Ed.). In *Psychology* (p. 519). New York, NY: Time Books.
2. Cayubit, R. F. (2012). Vocabulary and Reading Comprehension as a Measure of Reading Skills of Filipino Students. *The Assessment Handbook, Vol.9, 1*.
3. Elen, J. (2011). *Links Between Beliefs and Cognitive Flexibility*. New York: Springer Science and Business Media.
4. Jensen, J. R. (2002). *Examining the Effects of Explicit Teaching of Context Clues in Content Area Texts. Provo.*: Brigham Young University.
5. Hsueh-chao, M. H. & Nation, P. (2000). *Unknown Vocabulary Density and Reading Comprehension*. LALS, Victoria University of Wellington, New Zealand. Retrieved from <http://nflrc.hawaii.edu/rfl/PastIssues/rfl131hsuehchao.pdf>
6. Moving from the Old to the New: Research on Reading Comprehension Instruction. (1991). *Review of Educational Research*.
7. Nagy, W. E. (1998). *VOCABULARY INSTRUCTION AND READING COMPREHENSION*. University of Illinois at Urbana-Champaign.
8. Vadasy, P.F. & Nelson, J. R.. (2012). *Vocabulary Instruction for Struggling Students*. The Guilford Press. Retrieved from https://books.google.com.ph/books?id=VQc79E1F7TUC&pg=PA2&dq=role+of+vocabulary+in+reading+comprehension&hl=en&sa=X&ved=0CDsQ6AEwBmoVChMIp-LM37_byAIV4xmmCh0YKgnM#v=onepage&q=role%20of%20vocabulary%20in%20reading%20comprehension&f=false
9. Shanahan, T. (2015). Let's Get Higher Scores on These New Assessments. *The Reading Teacher*.
10. Stanovich, K. (1986). *Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy*. Reading Research Quarterly.

11. The President and Fellow of Harvard College. (2016). *The Science of Early Childhood Development: Closing the Gap Between What We Know and What We Do*. Cambridge, Massachussettes, United States.
12. The Problem with Reading. (2015, February 14). Philippines, United States. Retrieved from The Problem in Reading: <http://www.philippinesbasiceducation.us/2015/02/the-problem-with-reading.html>
13. Morozova, N.V., Slabkovskaya, A.B., Abramova, M.Y., Alimova, A.V. Assessment of chewing function in children with premature loss of primary teeth (2018) *International Journal of Pharmaceutical Research*, 10 (4), pp. 702-705.
14. Divya, M., Gayathri, M., Sangeetha, K., & Anguraj, S. (2018). SAP HANA-Database: Inter Organisation Cooperations with SAP Systems Perspectives on Data Management for Business Applications. *Bonfring International Journal of Networking Technologies and Applications*, 5(2), 21-25.
15. Subhaasini, P., Bhuvaneshwari, N., Jerald, M., & Madhavakirshnan, M. (2019). Preventing the Breach of Sniffers in TCP/IP Layer Using Nagle's Algorithm. *Bonfring International Journal of Networking Technologies and Applications*, 6(1), 6-10.
16. Thompson, P.M., Robbins, R.K. Allopatry and parapatry in hairstreak butterflies (Lycaenidae, Eumaeini) with uniform male sexual structures (2016) *Journal of Research on the Lepidoptera*, 49 (1), pp. 53-68.
17. LoPresti, E.F., Warren, A.D., Stichter, S.B., Eastwood, R. The historical occurrence of *Hesperia attalus* (Lepidoptera: Hesperidae) in New England (2015) *Journal of Research on the Lepidoptera*, 48 (1), pp. 9-12.