



Project REAP Module and Pupils' Reading Achievement in English

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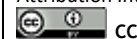
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Abstract

Reading comprehension poses a considerable challenge not just in schools, but also globally. Consequently, educators have been motivated to adopt a variety of teaching methodologies, strategies, and approaches to enhance reading fluency. This study aimed at validating the REAP (Reading Enhancement and Assessment Program) Module its effectiveness in teaching reading. This was in response to the alarming low achievement levels in English and to address the call for strengthening the pupils reading fluency. The study used the quasi-experimental design. The results revealed that the developed module consisted of excellent content, relevance, acceptability and instructional quality as validated by the experts in the area. Grade Six pupils of Roquildo D. Talapian Sr. Memorial Elementary School (RDTSMES) for School Year 2021-2022 were the respondents of this study. The pupils were divided into control and experimental groups using a fishbowl sampling. While the experimental group utilized the developed module, the control group did not. Based on the results, the performance of the pupils in experimental group had improved from did not meet expectation to very satisfactory whereas the control group had relatively improved from did not meet expectation to fairly satisfactory. Hence, it is recommended that the module be used in similar contexts particularly those who assessed with struggling readers.

Keywords: Project REAP Module; Reading enhancement; Reading assessment; Reading achievement; Validation.

1. Introduction

Children's literacy is essential for both societal growth and scholastic success, especially in the English language. English language competency is becoming more and more valued in the global context as a necessary skill that opens doors to social, professional, and educational opportunities. Within this framework, programs designed to improve pupils' reading competence are extremely important.

Several initiatives have been taken to increase pupils reading competency and literacy rates. The importance of literacy in accomplishing sustainable development goals is emphasized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), which also highlights the necessity of well-designed reading programs (UNESCO, 2020). Because English is the major language of teaching in many educational institutions and is important for global communication and commerce, English literacy is especially important in the Philippine context (Tupas, 2019).

The Department of Education (DepEd) is a key player in determining the direction of literacy programs and reading teaching. The goal of the DepEd's K-12 Basic Education Program is to provide pupils with the fundamental skills they need to succeed, one of which is reading fluency in English (Department of Education, 2020). It is still difficult to guarantee that every pupil meets the required reading outcomes, notwithstanding all efforts. On the other hand, DepEd reported that many early-grade pupils struggling to meet the standard of learning in early language for both literacy and numeracy, resulting in—low achievement levels in English caused by the gaps in pupils' reading comprehension. Low-performing pupils who could not comprehend Mathematical and Scientific word problems written in English. Elementary pupils are still deficient in literacy skills in language and content, and more so in reading.

A recurrent issue in Philippine education is the discrepancy between the goals of the curriculum and the performance of the students. Even though DepEd requires reading instruction, there is ongoing debate over how well-performing the current programs are at raising reading achievement (Banogon, 2018). Furthermore, there is a deficiency of evidence-based treatments that cater to the various needs of Filipino learners due to the paucity of research on reading enhancement programs specifically designed for the Philippine context.

In response to these challenges and gaps in research, and to address the need for a comprehensive reading enhancement program tailored to Filipino learners, this study was conducted. Specifically, this study aimed to develop and implement the Project REAP (Reading Enhancement and Assessment Program) Module, designed to

improve the pupils reading achievements in English. By providing a structured and evidence-based approach to reading instruction, this study endeavors to contribute to the advancement of literacy outcomes among grade six pupils.

1.1. Statement of the Problem

This study aimed to validate and determine the effectiveness of REAP Module and Pupils' Reading Achievement in English.

Specifically, it aimed to answer the following questions;

1. What is the level of validation of REAP Module in terms of its: content, relevance. Acceptability, and instructional quality?
2. What is the reading achievements of grade six pupils in the control and experimental groups in their pretest and posttest results in terms of: oral reading word list, oral reading phrases, oral reading sentences, and oral reading comprehension?
3. Is there a significant difference in the pupils' reading achievement between the control and experimental groups in the pretest and the posttest?
4. Is there a significant difference between the mean gain scores of the control group and the experimental group?

2. Methods

2.1. Research Design

The study employed the quasi-experimental research design, particularly the pretest and posttest, to determine the effectiveness of the REAP Module to the experimental group. This method was in line with the suggestions made by writers like [Campbell and Stanley \(1963\)](#), who supported the use of experimental designs to demonstrate the causality of correlations between treatments and results. Furthermore, evaluation and validation questionnaires. This methodological decision was consistent with the ideas put forth by [Creswell and Creswell \(2017\)](#), who supported the utilization of several data sources to improve the validity and reliability of research findings in education. To evaluate the suitability of the instrument in terms of content, acceptability, relevance, and instructional quality, the researchers used an experimental design in addition to a descriptive-evaluative research approach. This strategy adhered to the suggestions made by [Fraenkel et al. \(2019\)](#), who stressed the significance of assessing educational interventions from a variety of angles in order to obtain a thorough grasp of their influences. Furthermore, the descriptive-evaluative analysis produced data that were categorized, explained, and tallied in order to answer particular questions in the problem statement. This analytical strategy was in keeping with [Leedy and Ormrod \(2018\)](#) technique, which contends that data organization and tabulation aid in the synthesis and interpretation of research findings.

2.2. Locale of the Study

The selection of Ronquildo D. Talapian, Sr. Memorial Elementary School in Paril, Kalamansig, Sultan Kudarat as the locale for this study was grounded in both scientific and practical considerations. Scientifically, because of the area's population diversity, important information about how REAP affects reading achievement in various demographic groups might be gleaned. It was also guaranteed that the study was conducted and the instructional program was also implemented successfully because schools and community centers are easily accessible.

2.3. Respondents of the Study

The respondents of the study were the 36 Grade 6 pupils of RDTSMES and 5 content experts were master teachers from DepEd-SK and an English language expert teaching in Thailand. Because of the crucial stage of reading development that is normally measured at this grade level, the Grade 6 students from RDTSMES were chosen. In order to guarantee that the students involved in the study were at a proper level to benefit from the REAP intervention, inclusion criteria took the Philippine Informal Reading Inventory (Phil-IRI)'s frustration level into account.

2.4. Sampling Technique

The study used a total enumeration technique that included every member of the population ([Babbie, 2016](#)). In order to enable the random selection of participants from the population, randomization was accomplished using the fishbowl approach. Because there were only 18 individuals in each of the control and experimental groups, selection bias is reduced ([Freedman et al., 2007](#)).

2.5. Research Instrument

The researchers employed the Phil-IRI reading material for Grade 6 to assess the pupils' reading level. The materials were designed to measure the reading achievement of the respondents such as did not meet expectation, fairly satisfactory, satisfactory, very satisfactory, and outstanding. The REAP Module served as the primary treatment instrument in this study, meticulously crafted by the researchers based on the Grade 6 English curriculum guide. The researchers conducted a thorough review and analysis of the K to 12 Most Essential Learning Competencies (MELCs), focusing specifically on reading competencies outlined in the 1st to 4th Quarters ([Department of Education, 2020](#)). Designed as a self-contained and individualized self-instructional package, the REAP Module empowered pupils to pursue a diverse array of reading objectives at their own pace. This approach

not only catered to individual learning needs but also fostered a sense of autonomy and ownership over the learning process, thereby enhancing overall engagement and comprehension (Smith and Robinson, 2018). Moreover, the module's content included five lessons these were digraph, long vowel sound, pair consonant sounds, voiced and unvoiced, and diphthongs. There were four oral reading activity in every lesson such as oral reading word lists, phrases, sentences, and reading comprehension. Reading comprehension was composed of passages with a series of comprehension question check-up. To evaluate the effectiveness of REAP Module, a validation and evaluation instrument (Ambayon, 2020) were used and answered by the content experts. They evaluated the REAP Module and its effectiveness using a five- point Likert scale in terms of content, relevance, acceptability, and instructional quality..

2.6. Data Analysis and Interpretation

There were 20-item reading word list, 20-item reading phrases, 20-item reading sentences, and 20-item reading comprehension with the total of 80-items. In computing the reading word list, reading phrases, reading sentences, and reading comprehension the following formula were applied. The highest possible score divided by total raw score then multiply the quotient by 100%, served as the initial score of the pupils. The initial score of the pupils indicated in the transmutation table was converted and interpreted using the numerical grading scale with level of proficiency adapted from DepEd Order No. 8, s. 2015.

2.7. Statistical Treatment of Data

Mean was applied to get the experts' validation results of the REAP Module in terms of content, relevance, acceptability, and instructional quality. Similarly, mean was used to describe the pupils' oral reading achievement in the pretest and posttest for both control and experimental groups. The data were interpreted using the numerical grading scale with level of proficiency as indicated below adapted from DepEd Order No. 8, s. 2015. Moreover, the t-test was used for the computation of the significant difference of the reading achievement of the pupils between the control and experimental groups in the pretest and posttest, as well as, the significant difference between the mean gain scores of the control and experimental groups on the reading achievement of the grade 6 pupils.

3. Results and Discussion

Table-1. Summary of the Overall Mean Rating on the Content, Relevance, Acceptability, and Instructional Quality of the REAP Module

Elements	Mean	SD	Verbal Interpretation
Content	4.47	0.51	Excellent
Relevance	4.53	0.49	Excellent
Acceptability	4.60	0.46	Excellent
Instructional Quality	4.50	0.52	Excellent
Overall Mean	4.53	0.50	Excellent

As indicated, the summary of mean ratings in terms of content, relevance, acceptability, and instructional quality of the REAP Module resulted in a verbal description of excellent with ($M=4.53$, $SD=0.50$), which shows that the reading module has passed the quality standards and can be used in teaching reading. This also suggests a generally positive perception of the REAP module across the evaluated dimensions. As for the highest mean rating, acceptability got a score of ($M= 4.60$, $SD=0.46$). This indicates that the module is acceptable and aligns well with the needs and expectations of its intended audience, the Grade 6 pupils. Though, all aspects are rated excellent, content got the lowest rating with a score of ($M=4.47$, $SD=0.52$). This slight difference compared to the other ratings could suggest that there may be some room for improvement or refinement in this area. This could involve enriching the content further and addressing any potential gaps or areas of confusion. Musa (2020) found out that a personalized learning model significantly improved English reading skills, while Galvez (2023) reported that a reading comprehension module strengthened English literacy competence. Monica (2019), developed local content-based instructional graded reading materials and found them to be valid, practical, and effective. These studies collectively suggest that the developed module is likely to be effective in improving pupils' reading achievements.

Table-2. Reading Achievement of the Control Group in the Pretest and Posttest

Oral Reading	Pretest			Posttest		
	Mean	SD	Verbal Description	Mean	SD	Verbal Description
Reading Word List	70.06	4.72	Did Not Meet Expectation	82.67	3.45	Satisfactory
Reading Phrases	67.22	3.34	Did Not Meet Expectation	82.50	4.51	Satisfactory
Reading Sentences	64.56	2.97	Did Not Meet Expectation	76.83	3.38	Fairly satisfactory
Reading Comprehension	61.11	1.02	Did Not Meet Expectation	72.39	2.89	Did Not Meet Expectation
Overall Rating	65.44	2.38	Did Not Meet Expectation	77.44	3.09	Fairly Satisfactory

The data above indicates that during the pretest, the overall rating of reading word lists, phrases, sentences, and comprehension was ($M = 65.44$, $SD = 2.38$) described as Did Not Meet Expectation. In detail, the reading word list got the highest mean ($M = 70.06$, $SD = 4.72$) among the four oral reading activities. And the reading comprehension got the lowest mean of ($M = 61.11$, $SD = 1.02$). This means that the majority of the pupils have not yet gained competence in these four oral reading activities. On the other hand, for their posttest, the data points out the overall rating of ($M = 77.44$, $SD = 3.09$) with verbal description of fairly satisfactory. The reading word list got the highest mean ($M = 82.67$, $SD = 3.45$), while the reading comprehension ($M = 72.39$, $SD = 2.89$) marked as the lowest among the four oral reading activities. The results imply that during the pretest, pupils' low scores simply conveyed difficulty in reading, considering that no intervention had yet happened. However, during the posttest, the control group manifested a slight increase in their reading achievement but not enough to be considered as an outstanding reader. Furthermore, because the reading comprehension is the lowest of the four oral reading activity, therefore, it should be prioritized for pupils' improvement. The result is associated with the study of [Duke and Block \(2013\)](#), who emphasizes the importance of broader reading skills such as vocabulary, comprehension, and content knowledge, which are often neglected in favor of word-reading skills. [Morgan et al. \(2008\)](#), further explores the impact of early reading failure on children's motivation to read, finding a covarying relationship between the two. Finally, [Spear-Swerling \(2004\)](#) highlights the importance of word-level reading skills and oral language comprehension in reading comprehension, suggesting that these specific component abilities should be assessed. These studies collectively underscore the need for a more holistic approach to reading instruction, focusing on a range of skills and addressing the impact of early reading difficulties on motivation.

Table-3. Reading Achievement of the Experimental Group in their Pretest and Posttest

Oral Reading	Pretest			Posttest		
	Mean	SD	Verbal Description	Mean	SD	Verbal Description
Reading Word List	71.61	5.91	Did Not Meet Expectation	95.28	3.16	Outstanding
Reading Phrases	68.11	4.44	Did Not Meet Expectation	86.44	4.46	Very Satisfactory
Reading Sentences	66.44	4.80	Did Not Meet Expectation	85.33	2.57	Very Satisfactory
Reading Comprehension	61.33	0.97	Did Not Meet Expectation	85.00	1.46	Very Satisfactory
Overall Rating	66.56	3.48	Did Not Meet Expectation	87.94	2.41	Very Satisfactory

The analysis of the pretest and posttest results in [Table 3](#) unveils a dynamic narrative of progress and challenges within the realm of oral reading. Among the extremes, the highest mean observed in the posttest for reading word list at ($M=95.28$, $SD=3.16$) showcases exceptional improvement from the pretest ($M=71.61$, $SD=5.91$). This substantial leap underscores a commendable advancement in the learners' ability to fluently recognize and pronounce words, indicating a robust foundation in fundamental reading skills. Such outcomes resonate with research by [Johnson et al. \(2010\)](#), emphasizing the significant impact of explicit vocabulary instruction on enhancing reading proficiency, particularly in word recognition. Conversely, the lowest mean in the pretest for reading comprehension at ($M=61.33$, $SD=0.97$) initially indicates a significant deficit in this aspect of oral reading. However, this deficiency is markedly addressed in the posttest, with ($M=85.00$, $SD=1.46$). Meanwhile, reflecting a transformative journey from not meeting expectations to achieving a very satisfactory level. These findings align with the studies of [McKeown and Beck \(2017\)](#), which highlight effective instructional practices for developing reading comprehension skills. The significant progress observed in reading comprehension underscores the efficacy of targeted interventions in fostering learners' understanding and interpretation of written texts.

Table-4. The t-test Analysis between the Pretest and Posttest of the Control Group and Experimental Group

Groups	Mean Scores	df	t-stat	p-value
Pretest				
Control	65.44	17.00	22.99	0.00
Experimental	66.56			
Posttest				
Control	77.44	17.00	36.64	0.00
Experimental	87.94			

Note: $p < .05$, significant

As indicated, the t-test analysis of the pretest and posttest scores of the control and experimental groups. To compare the pretest results, the experimental group had a slightly higher mean pretest score (66.56) compared to the control group (65.44). For the posttest comparison, the experimental group significantly outperformed the control group, with a mean score of 87.94 compared to 77.44 for the control group. This implies that the intervention or treatment applied to the experimental group seems to have had a positive impact on their scores, as evidenced by the substantial increase in mean scores from pretest to posttest. The difference in the improvement was noted as the

experimental group showed a larger improvement from pretest to posttest (21.38 points) compared to the control group (12 points). The results suggest that the intervention or treatment given to the experimental group was effective in enhancing their performance compared to the control group. Further analysis was found in the study of Guido (2014) where instructional materials like a module played a significant role in better learning outcomes.

Table-5. The t-test Analysis between the Mean Gain Scores of the Control and Experimental Groups

Group	Mean Gain	SD	Df	t-stat	p-value
Control	12.00	2.43	34	11.49	0.00
Experimental	21.39	2.48			

Note: $p < .05$, significant

As shown, the p-value is 0.00, which is lower than the alpha level of 0.05, hence, it is statistically significant. This means that the mean gain of the experimental group ($M=21.39$, $SD=2.48$) is relatively higher than that of the control group ($M=12.00$, $SD=2.43$). It implies that pupils who used the REAP module were able to learn better than those who were merely thought through the conventional teaching method.

This result is consistent with the claim of Galvez (2023) and Fitriana (2020). Both highlighted the positive impact of reading comprehension modules on literacy competence and reading comprehension, respectively. Also, Afriani *et al.* (2023) reported that a self-made reading modules significantly improved reading comprehension and interest. Greenleaf and Petrosino (2009), emphasized the importance of programs designed to change daily teaching practices, such as the use of reading modules, in improving reading skills. Meisuri (2014), further supported this, showing that the application of Task Based Instruction, a type of module, significantly improved students' reading comprehension. These findings collectively suggest that the use of well-designed modules, in combination with effective teaching strategies, can lead to improved reading achievement in English.

4. Conclusions

Based on the study's findings, the researcher came up with several conclusions to concretize the tested ideas.

The validation process of the REAP Module yielded promising results. Content validators rated the module highly across various dimensions including content, relevance, acceptability, and instructional quality. The accumulated scores indicated an excellent level of validity, affirming the module's efficacy in building pupils' reading competence. Consequently, the module was deemed suitable and acceptable for use in educational contexts.

Meanwhile, the assessment of reading achievement among grade six pupils revealed notable improvements. The posttest of the experimental group is more proficient than that of the control group. Then, it can be inferred that conventional teaching is still not guaranteed the learners to improve their learning achievement. However, the traditional method can still be an aid for better learning provided that the teacher must be creative enough in delivering the lesson.

Finally, it can be understood that because of the utilization of the REAP module, the mean gain scores of the experimental group is higher than that of the control group. Thus, it indicates that module approach in teaching reading to grade six pupils is very important in fostering meaningful advancement in reading skills and overall academic development. It is manifesting that module utilization should be patronized.

Recommendations

In light of the findings and conclusion of the study, the following were drawn:

1. Despite the overall excellent ratings, it's crucial to address the lower rating in content. Therefore, it may be recommended to conduct a more detailed analysis on content, seeking feedback from educators and experts in pedagogy.
2. Given the importance of oral reading competence in literacy development, it may be essential to prioritize this aspect in the implementation of the REAP Module. To address this, integrating additional activities and resources specifically designed to enhance oral reading skills may be considered.
3. It may be used and introduce to the struggling readers and slow readers to improve their English reading proficiency.
4. Since, there is a great increase in the posttest result, the REAP module may be used as a tool to establish the baseline competency of Grade Six pupils in order for supervisors and coordinators to create a program that will address the common needs of the pupils in terms of reading.
5. The findings of the study may be also considered the basis for promoting the REAP module in other subject areas.

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