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THE EFFECTIVENESS OF K5 LEARNING MATERIALS IN IMPROVING THE READING COMPREHENSION OF LEARNERS

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BACKGROUND OF THE STUDY

Choosing appropriate materials is important in helping learners develop and improve their academic skills. In reading, appropriate materials provide learners with opportunities to practice understanding texts, identifying important information, and answering questions. Research has shown that targeted instruction in reading fluency and comprehension can help improve reading outcomes among elementary learners who experience difficulties in reading (Cockerill et al., 2023). This highlights the importance of providing learners with suitable materials and activities that support their reading development.

Reading comprehension is an essential part of reading because it enables learners to understand and gain meaning from what they read. However, reading difficulties remain a concern among learners in many countries. In the Philippines, the results of PISA 2022 showed that only 24% of Filipino students reached the minimum proficiency level in reading, compared with the OECD average of 74% (OECD, 2023). Although the assessment involved 15-year-old learners, the results emphasize the continuing need to strengthen reading skills at an earlier stage of education.

The use of appropriate learning materials may help address difficulties in reading comprehension. A study by Acedillo (2023) found that contextualized learning materials helped improve the reading comprehension skills of Grade 5 pupils. This supports the idea that additional and well-designed reading materials can provide learners with meaningful opportunities to practice comprehension. However, the effectiveness of specific materials may differ depending on the learners and the learning context.

In the school, some Grade 4 learners experience difficulties in reading and understanding texts. Based on classroom observations and the learners' reading performance, some learners have difficulty identifying important details, understanding the meaning of what they read, making inferences, and expressing their understanding of a passage. These difficulties affect their ability to participate effectively in reading activities and may also influence their performance in other learning areas where reading and comprehension are required. In the present study, K5 Learning materials will be used as an additional resource to help learners practice reading comprehension. The materials provide reading passages and comprehension exercises that allow learners to read, understand, and respond to questions about texts. In the researchers' school context, some Grade 4 learners have experienced difficulties in understanding passages and answering comprehension questions based on their reading activities and assessment results. This situation indicates a need for additional reading materials that can provide consistent practice and support.

Therefore, this study aims to determine the effectiveness of K5 Learning materials in improving the reading comprehension of Grade 4 learners. It will examine the learners' reading comprehension before and after the use of the materials and determine whether improvement occurs following the intervention.

Statement of the Problem

This study aims to determine the effectiveness of K5 Learning Materials in improving the reading comprehension of learners. Specifically, it seeks to answer the following questions:

1. What is the level of reading comprehension of the learners before the utilization of K5 Learning Materials in terms of:
   1.1 Literal Comprehension;
   1.2 Inferential Comprehension; and
   1.3 Critical Comprehension?
2. What is the level of reading comprehension of the learners after the utilization of K5 Learning Materials in terms of:
   2.1 Literal Comprehension;
   2.2 Inferential Comprehension; and
   2.3 Critical Comprehension?
3. Is there a significant difference between the learners' reading comprehension performance before and after the utilization of K5 Learning Materials?
4. Based on the findings of the study, what intervention or enhancement plan may be proposed to further improve the learners' reading comprehension?

Scope and Delimination of the Study

This study focuses on determining the effectiveness of K5 Learning materials in improving the reading comprehension of Grade 4 learners. The instructional materials utilized in this study were sourced from K5 Learning and were not developed or originally created by the researcher. These materials are used solely as instructional resources to examine their effectiveness in improving learners' reading comprehension within the Philippine educational context.

The findings will provide insights into the potential usefulness of these existing materials in addressing learners' reading comprehension difficulties in the local setting. It will involve 15 Grade 4 learners from the selected school during the conduct of the study. The study will focus specifically on the learners' ability to understand reading passages, identify important details, determine the main idea, and answer comprehension questions.

The learners' reading comprehension will be assessed before and after the intervention to determine whether there is an improvement in their performance. The K5 Learning Materials were utilized as supplementary instructional resources during the learners' ARAL classes, which were conducted after the regular classroom subjects. A posttest was subsequently administered to determine changes in the learners' reading comprehension performance. Although the posttest was initially planned for the third term, it was conducted earlier as part of the actual data-gathering schedule. The study is delimited to the selected Grade 4 learners and the specific school where the research will be conducted. It will not include learners from other grade levels. The findings will therefore apply primarily to the participants and setting of the study. Other factors that may influence reading comprehension, such as home environment, parental support, learning disabilities, and individual learning differences, will not be the main focus of the study.

Significance of the Study

The findings of this study may provide useful information regarding the effectiveness of K5 Learning materials in improving the reading comprehension of Grade 4 learners. The study may be beneficial to the following:

School Head**,** the findings of this study may provide the School Head with information that can be used in planning, supporting, and strengthening the school's reading intervention programs. The results may also serve as a basis for considering appropriate supplementary learning materials that can address the reading comprehension needs of learners.

Teachers, the findings may help teachers determine whether K5 Learning materials can be used as an additional resource in teaching reading comprehension. The results may also guide teachers in providing appropriate activities and interventions for learners who experience difficulties in understanding texts.

Grade 4 Learners, the study may benefit the Grade 4 learners by providing them with additional opportunities to practice reading and comprehension through the use of K5 Learning materials. The activities may help them improve their ability to understand passages, identify important details, determine the main idea, and answer comprehension questions.

Parents, the findings may help parents become more aware of their children's reading comprehension needs. The study may also encourage them to provide additional reading practice and support at home.

Future Researchers, the study may serve as a reference for future researchers who plan to conduct related studies on K5 Learning materials, reading comprehension, or other reading interventions. It may also provide information that can be used in developing or conducting similar studies in other grade levels or school settings.

Intervention, Innovation, Strategy

The intervention in this study will be the utilization of K5 Learning Materials to provide additional and structured reading activities for the identified Grade 4 learners who demonstrate difficulties in reading comprehension. K5 Learning is recognized as the original source of the instructional materials utilized in this study. Proper acknowledgment of the source will be provided throughout the research. The materials will be used solely for research purposes to evaluate their effectiveness in improving learners' reading comprehension in the Philippine educational context. No complete worksheets will be reproduced or included in the appendices or other published sections of the study without obtaining the necessary permission. Furthermore, any modifications to the original materials will be subject to appropriate authorization when required. The findings and conclusions of this study represent the independent work of the researcher and should not be interpreted as an endorsement, sponsorship, or official position of K5 Learning.

Before the implementation of the intervention, the learners will be administered the Philippine Informal Reading Inventory (Phil-IRI) pre-test to determine their initial reading comprehension performance. The results will provide baseline information regarding their comprehension skills in terms of literal, inferential, and critical comprehension.

During the intervention, the teacher-researcher will utilize selected K5 Learning Materials as supplementary reading resources during classroom instruction. The learners will engage in guided reading activities, comprehension exercises, and follow-up questions based on the selected reading materials. The activities will be presented progressively according to the learners' reading

abilities and will provide opportunities for them to practice identifying information, interpreting ideas, and critically responding to what they have read.

The intervention will specifically provide activities that develop the following comprehension skills: literal comprehension, which involves understanding information explicitly stated in the text; inferential comprehension, which involves drawing conclusions or making interpretations based on information presented in the text; and critical comprehension, which involves evaluating ideas, forming judgments, and responding thoughtfully to information presented in the text.

Research Methodology

This study will employ a single-group pre and post test research design, to determine the effectiveness of K5 Learning Materials in improving the reading comprehension of Grade 4 learners. This design is appropriate because the study will involve one group of identified struggling readers who will be assessed before and after the utilization of the K5 Learning Materials.

This design is suitable because the study will be conducted in an existing classroom setting where the researcher cannot randomly assign learners to different groups. The identified learners will remain in their existing class and will be exposed to the same intervention. By comparing the learners' pre-test and post-test results, the researcher can determine whether there is a significant difference in their reading comprehension performance after the utilization of the K5 Learning Materials.

Thus, the quasi-experimental design provides an appropriate and practical approach for examining the possible effectiveness of the intervention under the actual classroom conditions of the study.

Research Locale

This study will be conducted at Malanta Elementary School, located in Barangay Limaong, Vitali Zamboanga City. The school was originally established in 1994 to provide accessible elementary education to learners in nearby communities. Since its establishment, the school has continued to provide basic education and support the academic development of its learners. Over the years, the school has implemented various educational programs and activities intended to address the learning needs of its pupils.

The institution is managed by a school head, supported by 8 teaching and 1 non-teaching personnel. The school has seven (7) classrooms that support the school's instructional and administrative activities. These facilities provide the necessary spaces for classroom instruction and other school-related activities.

Malanta Elementary School implements various programs to support learners' development. This includes ARAL Program, which aims to provide additional learning support to learners who need assistance in developing their academic skills. WINS (Wash in Schools) Program, which promotes proper hygiene, sanitation, and healthy practices among learners. Gender and Development (GAD) Program is also implemented to promote gender equality, awareness, respect, and inclusivity within the school community. In addition, the school implements the School-Based Feeding Program**,** which provides nutritional support to qualified learners. At present, the school caters to a student population of more than 160 learners.

Population and Sampling

The respondents of this study are the 15 identified struggling Grade 4 learners of Malanta Elementary School, for the School Year 2026–2027. The identified Grade 4 learners demonstrate reading difficulties, with their assessed reading levels falling approximately two to three grade levels below their current grade level. Specifically, some learners' reading performance corresponds to the expected reading level of learners in Grade 2 and Grade 1, respectively. This gap between their enrolled grade level and assessed reading level indicates that they require additional support and appropriate intervention to develop their reading skills.

The population of the study consists of 31 Grade 4 learners enrolled in the class. From this population, 15 learners identified as struggling readers will be selected as the respondents of the study. These learners will participate in the pretest, utilization of the K5 Learning Materials, and posttest.

The study will employ purposive sampling**,** a non-probability sampling technique in which participants are deliberately selected based on specific characteristics or criteria relevant to the study. In this study, the 15 learners will be purposively selected based on their identified difficulty in reading comprehension.

Purposive sampling is appropriate for this study because the research specifically focuses on improving the reading comprehension of struggling Grade 4 learners. Selecting learners who meet this criterion ensures that the intervention is given to the group for whom the K5 Learning Materials are most relevant. Therefore, the 15 identified struggling learners will be included as the respondents of the study.

Research Instrument

The primary research instrument to be used in this study is the Philippine Informal Reading Inventory (Phil-IRI), an assessment tool developed by the Department of Education (DepEd) to assess the reading performance of Filipino learners. It is designed to identify learners' reading abilities and difficulties and to provide information that can be used in planning appropriate reading interventions.

In this study, the Phil-IRI will be used to assess the reading comprehension performance of the identified Grade 4 learners before and after the utilization of the K5 Learning Materials. The assessment will provide baseline information on the learners' reading comprehension level and will serve as the basis for determining changes in their performance following the intervention.

The Phil-IRI assessment will focus on the learners' ability to understand and respond to reading texts. The learners' comprehension performance will be examined in terms of literal, inferential, and critical comprehension, consistent with the variables and objectives of the study. The same assessment framework will be used in the pre-test and post-test to determine the learners' performance before and after the intervention.

Data Analysis

The data gathered from the pretest and posttest will be organized, tabulated, and analyzed using appropriate descriptive and inferential statistical tools. The data analysis will focus on determining the reading comprehension level of the Grade 4 learners before and after the utilization of K5 Learning Materials in terms of literal, inferential, and evaluative comprehension.

Mean will be used to determine the average scores of the learners in the pretest and posttest for each level of reading comprehension. This will show the learners' performance before and after the intervention.

Standard deviation will be used to determine the variation or spread of the learners' scores around the mean.
To determine whether there is a significant difference between the learners' pretest and posttest scores, the paired-samples t-test will be used. This statistical test is appropriate because the same group of learners will be assessed before and after the utilization of the K5 Learning Materials. Similar pretest-posttest reading intervention studies have used the paired-samples t-test to examine changes in the same learners' scores.

The level of significance will be set at 0.05. If the computed p-value is less than 0.05, the null hypothesis will be rejected, indicating a significant difference between the pretest and posttest scores. If the p-value is greater than 0.05, the null hypothesis will not be rejected, indicating that there is no significant difference between the two scores.

RESULTS AND DISCUSSION

Research Question 1. What is the level of reading comprehension of the learners before the utilization of K5 Learning Materials in terms of:

1.1 Literal Comprehension;
1.2 Inferential Comprehension; and
1.3 Critical Comprehension?

Table 1. Level of Reading Comprehension before the Utilization of K5 Learning materials

READING COMPREHENSION VARIABLES	N	Mean
PRETEST_LITERAL(11_ITEMS)	15	7.53
PRETEST_INFERENTIAL(10_ITEMS)	15	6.20
PRETEST_CRITICAL(3_ITEMS)	15	1.73
OVER ALL READING COMPREHENSION (24_ITEMS)	15	15.46

Table 1 shows the pretest results of 15 learners before the utilization of K5 Learning Materials. The learners obtained a mean score of 7.53 (68.45%) in literal comprehension, 6.20 (62.00%) in inferential comprehension, and 1.73 (57.67%) in critical comprehension. The overall mean was 15.46 out of 24 items (64.42%). These results show that the learners scored highest in literal comprehension and lowest in critical comprehension, suggesting that evaluating information may require additional instructional support.

In the study of Elleman (2017) conducted a meta-analysis of 25 studies involving learners from Kindergarten to Grade 12. The study found that explicit instruction in making inferences improved general, inferential, and literal comprehension.

The findings highlights the need for structured reading activities that develop literal, inferential, and critical comprehension. The pretest result will serve as a baseline for assessing learners' progress after the utilization of K5 Learning Materials.

Research Question 2. What is the level of reading comprehension of the learners after the utilization of K5 Learning Materials in terms of:

1.1 Literal Comprehension;
1.2 Inferential Comprehension; and

1.3 Critical Comprehension?

Table 2. Level of Reading Comprehension after the Utilization of K5 Learning Materials

READING COMPREHENSION VARIABLES	N	Mean
POSTTEST_LITERAL(11_ITEMS)	15	8.93
POSTTEST_INFERENTIAL(10_ITEMS)	15	7.20
POSTTEST_CRITICAL(3_ITEMS)	15	2.27
OVERALL_READING_COMPREHENSION(24_ITEMS)	15	18.40

The Table 2 shows the posttest results of the 15 learners after the utilization of K5 Learning Materials. The learners obtained an overall mean score of 18.40 out of 24 items (76.67%). Literal comprehension obtained the highest percentage (81.18%), followed by critical comprehension (72.00%). These findings indicate that the learners achieved higher scores in literal comprehension, while inferential may require further instructional support.

In a meta-analysis of 47 studies involving 7,446 primary-grade students, Denton et.al. (2022) found that reading interventions had a positive effect on reading comprehension among students with or at risk of reading difficulties.

The findings highlight the importance of providing structured reading activities to strengthen learners' comprehension skills, particularly their ability to make inferences.

Research Question 3. Is there a significant difference between the learners' reading comprehension performance before and after the utilization of K5 Learning Materials?

Table 3. Difference Between Pretest and Posttest Reading Comprehension Score

READING COMPREHENSION VARIABLES	Mean	SD	t-obs	df	P value	Interpretation
PRE_LITERAL POST_LITERAL	-1.400	1.183	-4.583	14	.000	Significant
PRE_INFERENTIAL POST_INFERENTIAL	-1.000	1.195	-3.240	14	.006	Significant
PRE_CRITICAL POST_CRITICAL	-.533	.915	-2.256	14	.041	Significant

The results shows a significant difference between the pretest and posttest scores in literal, inferential, and critical comprehension. Since all p-values are below the .05 significance level, the learners demonstrated statistically significant improvements following the utilization of K5 Learning Materials.

In support of these findings, Bogaerds-Hazenberg et al. (2021) conducted a meta-analysis of 44 experimental and quasi-experimental studies involving the students in Grades 4-6. These findings showed that text structure instruction had positive immediate effects on reading comprehension, although the effects varied depending on how comprehension was measured.

This study highlights the value of structured reading instruction in supporting comprehension development. Teachers may provide varied reading activities to strengthen learners' ability to inderstand, interpret, and evaluate texts.

Research Question 4. Based on the findings of the study, what intervention or enhancement plan may be proposed to further improve the learners' reading comprehension?

Based on the findings of the study, the researcher proposes the continued utilization of K5 Learning Materials as an intervention to improve the reading comprehension of struggling Grade 4 learners. The intervention will focus on developing literal, inferential, and critical comprehension through structured reading passages and comprehension exercises.

For literal comprehension, learners will practice identifying main ideas, important details, and explicitly stated information. For inferential comprehension, they will engage in activities that require them to draw conclusions, make predictions, and identify implied meanings. For critical comprehension, learners will evaluate information, express opinions, and support their answers using evidence from the text.

The teacher will facilitate regular reading sessions, provide guidance during comprehension activities, and monitor learners' progress through classroom assessments. Additional support will be provided to learners who continue to experience difficulties. Through these activities, the intervention aims to strengthen learners' reading comprehension skills and support their continued academic development.

CONCLUSION

The results of this study indicate that the utilization of K5 Learning Materials was associated with significant improvements in the reading comprehension performance of the selected Grade 4 learners. The findings revealed statistically significant differences between the pretest and posttest scores in literal comprehension ($p < .001$), inferential comprehension ($p = .006$), and critical comprehension ($p = .041$). These results suggest that the learners demonstrated improved performance after using the learning materials.

The significant differences across the three comprehension areas highlight the potential value of providing structured reading passages and comprehension exercises to struggling learners. Through regular reading practice, learners are given opportunities to identify important details, understand information, make inferences, and evaluate what they have read. These activities may help address some of the difficulties experienced by learners in understanding written texts.

The findings suggest that K5 Learning Materials can serve as a supplementary resource for strengthening reading comprehension among Grade 4 learners. However, since the study involved only 15 struggling learners and employed a single-group pretest-posttest design, the results should be interpreted within the context of the study. Further research involving a larger sample and a comparison group may provide stronger evidence of the effectiveness of the materials.

Recommendations

1. For School Heads. School heads may support reading intervention programs by encouraging teachers to use appropriate supplementary reading materials and providing resources that address learners' reading difficulties.
2. For Teachers. Teachers may integrate K5 Learning Materials into their reading intervention activities to provide struggling learners with additional opportunities to practice comprehension. They may also provide guided exercises to strengthen literal, inferential, and critical comprehension skills.
3. For Learners. Learners are encouraged to participate actively in reading activities and practice comprehension exercises regularly to improve their ability to understand texts and answer questions accurately.
4. For Parents. Parents may support their children's reading development by encouraging regular reading practice at home and communicating with teachers about their children's progress.
5. For Future Researchers. Future researchers may conduct similar studies involving a larger number of learners, a longer intervention period, and a comparison group. They may also examine the effectiveness of K5 Learning Materials among learners in other grade levels and in different school settings.

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