IMPROVING VOCABULARY MASTERY THROUGH INTERACTIVE STORYTELLING AMONG GRADE FOUR LEARNERS OF CREATIVE GEMS LEARNING CENTER, INC

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Abstract

Vocabulary mastery is a foundational component of language learning because it enables learners to understand word meanings, recognize vocabulary in texts, use words accurately in sentences, and interpret meanings based on context. This study determined the effectiveness of interactive storytelling in enhancing the vocabulary mastery of Grade Four learners at Creative Gems Learning Center, Inc. Specifically, it assessed learners' vocabulary mastery before and after the implementation of interactive storytelling in terms of word meaning, word recognition, word usage in sentences, and contextual understanding; tested the significant difference between pretest and posttest scores; identified challenges encountered during the intervention; and proposed an instructional enhancement plan based on the findings. The study employed a pre-experimental one-group pretest–posttest research design. The respondents were 40 Grade Four learners selected through total enumeration sampling. A researcher-developed vocabulary mastery test was used as the primary instrument to gather pretest and posttest data. The interactive storytelling intervention included story presentation, guided questioning, prediction activities, repetition of target words, dramatization, retelling, and oral or written vocabulary activities. Findings revealed that learners had a moderate level of vocabulary mastery before the intervention. After using interactive storytelling, learners achieved a high level of vocabulary mastery, demonstrating improvement across all vocabulary indicators. The overall pretest mean of 2.59 increased to a posttest mean of 4.10, resulting in a mean difference of 1.51. The computed t-value of 17.36 and p-value of less than .001 indicated a statistically significant difference between the pretest and posttest results; thus, the null hypothesis was rejected. The most common challenge encountered was difficulty using newly learned vocabulary in sentences. Based on the findings, the study proposed STORY-WORDS: An Interactive Storytelling-Based Instructional Enhancement Plan for Grade Four Vocabulary Mastery.

Keywords: Interactive Storytelling, Vocabulary Mastery, Grade Four Learners, Word Meaning, Word Recognition, Sentence Usage, Contextual Understanding

1. Introduction

Vocabulary mastery is a fundamental component of language learning because it enables learners to recognize, understand, and use words meaningfully in listening, speaking, reading, and writing tasks. In the elementary grades, vocabulary does not function merely as a set of words to memorize; rather, it serves as a linguistic foundation for comprehension, oral expression, written communication, and classroom participation. Recent literature emphasizes that vocabulary instruction is central to literacy development and that breadth and depth of vocabulary support learners' ability to recognize words in context and comprehend texts (Zeng et al., 2025). This makes vocabulary mastery especially important among Grade Four learners, who are expected to understand increasingly complex stories, informational texts, classroom directions, and subject-related vocabulary.

Vocabulary mastery is closely associated with reading comprehension because learners cannot fully understand sentences, paragraphs, and extended texts without sufficient knowledge

of word meanings. The uploaded manuscript explains that Grade Four learners must develop vocabulary skills not only in word meaning but also in word recognition, word usage in sentences, and contextual understanding. This multidimensional view is supported by vocabulary research, which shows that teaching word meanings supports comprehension and that instruction involving active word processing is generally more useful than definition-based or dictionary-only methods (Wright & Cervetti, 2017). Therefore, vocabulary instruction should help learners encounter words repeatedly, understand meanings deeply, and use words in meaningful contexts.

In the Philippine basic education context, vocabulary development is aligned with the goals of the MATATAG English Curriculum. The DepEd MATATAG English Curriculum for Grades 4 and 7 presents language learning as a means of developing communication, literacy, interpretation, expression, and participation in society (Department of Education, 2023). This curricular direction supports the need for vocabulary instruction that goes beyond word recall. Learners must be able to interpret vocabulary in texts, explain ideas using appropriate words, and participate actively in language activities. Thus, strengthening vocabulary mastery among Grade Four learners is directly connected to the broader goal of developing communicative and literate learners.

Despite its importance, vocabulary mastery remains challenging for many elementary learners. The uploaded manuscript notes that learners may recognize words while reading but still struggle to explain meanings, use words accurately in sentences, or interpret meanings based on context. These difficulties become more visible in Grade Four because learners are already expected to read longer selections and understand vocabulary used in stories, poems, instructions, and content-area lessons. The University of Virginia Literacy Partnerships also emphasizes that literacy instruction for Grades 4–8 should support evidence-based reading instruction, including vocabulary-related skills necessary for comprehension and written expression (University of Virginia Literacy Partnerships, 2023).

Traditional vocabulary instruction often relies on copying definitions, memorizing word lists, and answering isolated vocabulary drills. While these activities may help learners temporarily recall words, they may not be sufficient for deep, flexible, and functional vocabulary learning. Vocabulary mastery requires learners to understand words in context, use them in sentences, and connect them with ideas, experiences, and texts. This is consistent with research showing that vocabulary instruction should connect theory, research, and classroom practice, particularly because vocabulary knowledge supports reading comprehension and writing outcomes (Zeng et al., 2025). Therefore, teachers need strategies that make vocabulary learning active, contextualized, and meaningful.

Interactive storytelling offers a promising instructional strategy for vocabulary development because it embeds words within meaningful narratives, characters, events, emotions, and situations. Instead of presenting vocabulary as isolated terms, storytelling allows learners to encounter words in context and connect meanings with actions, images, dialogue, and story events. Research on digital storytelling indicates that storytelling can enhance vocabulary acquisition among young learners by integrating visual, auditory, and textual elements that support understanding and retention (Banoth & Muthyala, 2025). Although the present study focuses on interactive storytelling rather than purely digital storytelling, the same principle applies: vocabulary learning becomes stronger when learners interact with words through meaningful, engaging, and multimodal experiences.

The interactive nature of storytelling is particularly suitable for Grade Four learners because it allows them to participate actively in the learning process. Learners can listen to stories, predict events, answer questions, repeat key words, dramatize scenes, retell story parts, and use newly learned vocabulary in oral or written responses. The uploaded manuscript identifies these activities as part of the intervention and links them to vocabulary mastery in word meaning, word recognition, sentence usage, and contextual understanding. This approach

reflects child-centered language learning because learners are not passive receivers of definitions; they become active users of words in meaningful communicative situations.

The local context of Creative Gems Learning Center, Inc. further justifies the study. Grade Four learners in the school are expected to use language for broader academic and communicative purposes, including reading comprehension, classroom discussion, written responses, and interpretation of texts. However, the effectiveness of interactive storytelling cannot simply be assumed based on studies from other countries, grade levels, or learning environments. The uploaded manuscript identifies the need to generate classroom-based evidence on whether interactive storytelling can improve learners' vocabulary mastery in the actual setting of Creative Gems Learning Center, Inc.

Accordingly, this study determined the effectiveness of interactive storytelling in enhancing vocabulary mastery among Grade Four learners at Creative Gems Learning Center, Inc. Specifically, it assessed learners' vocabulary mastery before and after the implementation of interactive storytelling in terms of word meaning, word recognition, word usage in sentences, and contextual understanding. By comparing pretest and posttest results, the study aimed to determine whether interactive storytelling improved vocabulary mastery. Ultimately, the study provides localized evidence that may help teachers design vocabulary lessons that are more engaging, participatory, contextualized, and developmentally appropriate for Grade Four learners.

2. Method

2.1 Research Design

The study employed a pre-experimental research design, specifically the one-group pretest–posttest design, to determine the effectiveness of interactive storytelling in enhancing vocabulary mastery among Grade Four learners at Creative Gems Learning Center, Inc. This design was appropriate because the study involved one intact group of learners who were assessed before and after exposure to the instructional intervention. The pretest measured the learners' baseline vocabulary mastery before the implementation of interactive storytelling, while the posttest measured their vocabulary mastery after the intervention. In educational research, the one-group pretest–posttest design is commonly used when the researcher seeks to determine whether measurable improvement occurs after a teaching strategy or intervention is implemented with the same group of participants (Campbell & Stanley, 1963; Creswell & Creswell, 2018; Shadish et al., 2002). In this study, vocabulary mastery was assessed in terms of word meaning, word recognition, word use in sentences, and contextual understanding, which served as the basis for comparing learners' performance before and after interactive storytelling. The intervention involved story presentation, guided questioning, prediction activities, repetition of target words, dramatization, retelling, and oral or written vocabulary tasks, allowing learners to encounter and use vocabulary in meaningful narrative contexts. The difference between the pretest and posttest scores provided empirical evidence on whether interactive storytelling contributed to improvement in learners' vocabulary mastery. Although the absence of a control group limits the ability to rule out all alternative explanations, the design remained suitable for the study because it generated classroom-based evidence on vocabulary gains among the Grade Four learners in the actual instructional setting of Creative Gems Learning Center, Inc. (Creswell & Creswell, 2018; Shadish et al., 2002).

2.2 Participants

The study was conducted with 40 Grade Four learners from Creative Gems Learning Center, Inc., who were officially enrolled at the time the study was conducted. These learners served as the primary respondents because they directly participated in the interactive storytelling intervention and completed both the pretest and posttest on vocabulary mastery. They were considered the most appropriate participants because the study specifically aimed to determine

the effectiveness of interactive storytelling in enhancing vocabulary mastery among Grade Four learners in terms of word meaning, word recognition, word usage in sentences, and contextual understanding. The study employed total enumeration sampling, wherein all 40 Grade Four learners in the identified population were included as respondents. This sampling procedure was appropriate because the population was manageable, accessible, and directly involved in the instructional intervention. The respondents were selected based on the following criteria: official enrollment as Grade Four learners at Creative Gems Learning Center, Inc., participation in the interactive storytelling activities, and completion of both the pretest and posttest. Including the entire Grade Four population enabled the study to conduct a comprehensive classroom-based assessment of learners' vocabulary mastery before and after the intervention. Since the study was conducted in one school and focused only on Grade Four learners who participated in the intervention, the findings were interpreted primarily within the context of Creative Gems Learning Center, Inc., and were not intended for direct generalization to all Grade Four learners in other schools.

2.3 Instrumentation

The study used a researcher-developed vocabulary mastery test as the primary instrument to assess the vocabulary performance of Grade Four learners at Creative Gems Learning Center, Inc. The test was administered twice: first as a pretest to assess learners' baseline vocabulary mastery before the implementation of interactive storytelling, and second as a posttest to assess their vocabulary mastery after the intervention. The instrument was constructed using target vocabulary words taken from the stories used during the interactive storytelling sessions. It assessed learners' vocabulary mastery in four domains: word meaning, word recognition, word usage in sentences, and contextual understanding. The word meaning component measured learners' ability to identify the correct meaning of target words; the word recognition component assessed their ability to recognize vocabulary words accurately; the word usage in sentences component measured their ability to use newly learned words appropriately in meaningful sentences; and the contextual understanding component assessed their ability to infer word meanings from sentence or story contexts. The use of these four domains was appropriate because vocabulary mastery requires more than memorizing definitions; learners must also recognize words, understand meanings, use words accurately, and interpret vocabulary in context (Wright & Cervetti, 2017; Zeng et al., 2025). The test was evaluated by qualified professionals, including English teachers, elementary language instructors, and research advisers, to ensure clarity, relevance, grade-level appropriateness, and alignment with the study's objectives. Revisions were made based on expert feedback before the final administration of the instrument. In addition to the vocabulary mastery test, the intervention used an interactive storytelling procedure composed of story presentation, guided questioning, prediction exercises, repetition of target vocabulary, dramatization, retelling, and oral or written vocabulary activities. These activities supported the administration of the posttest by providing learners with repeated, meaningful exposure to target vocabulary before their post-intervention performance was measured. Overall, the instruments and intervention procedures were suitable because they generated quantitative data to compare learners' vocabulary mastery before and after interactive storytelling and provided evidence of the strategy's effectiveness in improving vocabulary development among Grade Four learners.

2.4 Data Analysis

The data gathered from the vocabulary mastery test were organized, tabulated, scored, and analyzed using both descriptive and inferential statistical techniques. Weighted mean and standard deviation were used to determine the level of vocabulary mastery of Grade Four learners before and after the implementation of interactive storytelling, in terms of word meaning, word recognition, word use in sentences, and contextual understanding. These descriptive statistics

enabled the researcher to determine the learners' average performance and the consistency of their responses across the four vocabulary domains. The weighted mean was interpreted using the established descriptive scale to determine whether learners demonstrated low, moderate, high, or very high levels of vocabulary mastery. To determine whether a significant difference existed between the learners' pretest and posttest scores, the paired-samples t-test was employed. This inferential statistical tool was appropriate because the same group of Grade Four learners was tested twice—before and after exposure to the interactive storytelling intervention—making the data dependent and related (Campbell & Stanley, 1963; Creswell & Creswell, 2018; Shadish et al., 2002). The level of significance was set at 0.05, which determined whether to accept or reject the null hypothesis. If the computed p-value was less than 0.05, the null hypothesis of no significant difference was rejected, indicating that the intervention had a statistically significant effect on vocabulary mastery. In addition, frequency counts, percentages, weighted means, and rankings were used to identify and describe the challenges encountered by learners during the implementation of interactive storytelling. These procedures enabled the researcher to determine the most frequently experienced difficulties and provided empirical bases for the formulation of the proposed instructional enhancement plan. Overall, the selected statistical tools were appropriate because they allowed the study to describe learners' vocabulary mastery, determine the effectiveness of interactive storytelling, identify implementation challenges, and generate evidence-based recommendations for vocabulary instruction among Grade Four learners.

3. Results

The results showed that before the implementation of interactive storytelling, the Grade Four learners of Creative Gems Learning Center, Inc. demonstrated a moderate level of vocabulary mastery, with an overall pretest mean of 2.59. Among the four vocabulary indicators, word recognition obtained the highest mean of 2.91, indicating that learners were relatively more capable of identifying vocabulary words before the intervention. However, word usage in sentences obtained the lowest mean of 2.35, suggesting that learners had greater difficulty using newly learned words meaningfully in written or oral sentence construction. These findings indicate that learners had an existing vocabulary foundation but still needed support in applying words accurately and appropriately in context.

After implementing interactive storytelling, learners' vocabulary mastery improved to a high level, with an overall posttest mean of 4.10. All indicators improved after the intervention, with word recognition reaching the highest mean of 4.35, followed by word meaning (4.18), contextual understanding (4.02), and word usage in sentences (3.86). These results show that the learners became more capable of recognizing vocabulary words, understanding their meanings, interpreting words in context, and using them in sentences after participating in interactive storytelling activities.

The comparison between the pretest and posttest results confirmed a substantial improvement in the learners' vocabulary mastery. The overall mean increased from 2.59 in the pretest to 4.10 in the posttest, producing a mean difference of 1.51. The computed t-value of 17.36 and p-value of less than .001 indicated that the improvement was statistically significant at the 0.05 level; therefore, the null hypothesis was rejected. This means that interactive storytelling significantly enhanced the vocabulary mastery of the Grade Four learners.

The study also revealed that learners encountered challenges when using interactive storytelling. The most common challenge was difficulty using newly learned vocabulary words in sentences, reported by 18 learners (45.00%). This was followed by difficulty understanding unfamiliar words during storytelling (16 learners, 40.00%) and limited confidence in answering questions orally (14 learners, 35.00%). Other challenges included difficulty interpreting word meanings in the context of the story, difficulty retelling story events using target vocabulary,

shyness during dramatization, difficulty remembering target words, and a short attention span during longer storytelling sessions.

Based on these findings, the study proposed STORY-WORDS: An Interactive Storytelling-Based Instructional Enhancement Plan for Grade Four Vocabulary Mastery. The plan was designed to sustain the gains from interactive storytelling and address remaining vocabulary difficulties through vocabulary unlocking, repeated exposure to target words, guided questioning, context-clue activities, sentence construction, oral sharing, retelling, dramatization, vocabulary journals, and regular assessment. Overall, the results indicate that interactive storytelling is an effective and engaging strategy for improving vocabulary mastery among Grade Four learners at Creative Gems Learning Center, Inc.

4. Discussion

The study's findings indicate that interactive storytelling significantly enhanced vocabulary mastery among Grade Four learners at Creative Gems Learning Center, Inc. Before the intervention, learners demonstrated only a moderate level of vocabulary mastery, with an overall pretest mean of 2.59. After implementing interactive storytelling, their vocabulary mastery improved to a high level, with an overall posttest mean of 4.10. This improvement shows that learners benefited from vocabulary instruction that was embedded in meaningful stories, guided questioning, prediction activities, repetition of target words, dramatization, retelling, and oral or written vocabulary tasks. This result supports the view that vocabulary learning is strengthened when learners encounter words repeatedly and meaningfully rather than through isolated memorization alone (Wright & Cervetti, 2017; Zeng et al., 2025).

The improvement across all vocabulary indicators further confirms the value of interactive storytelling as a language-learning strategy. Word recognition obtained the highest posttest mean of 4.35, followed by word meaning with 4.18, contextual understanding with 4.02, and word usage in sentences with 3.86. These results suggest that storytelling was especially effective in helping learners recognize vocabulary words and understand their meanings, while also improving their ability to interpret words in context and use them in sentences. This finding is consistent with the claim that vocabulary mastery is multidimensional: learners must not only remember definitions but also recognize words, understand meanings, use words accurately, and interpret meanings within context (University of Virginia Literacy Partnerships, 2023; Wright & Cervetti, 2017; Zeng et al., 2025).

The statistically significant difference between the pretest and posttest scores strengthens the conclusion that interactive storytelling was effective. The overall mean increased from 2.59 to 4.10, with a mean difference of 1.51. The computed t-value of 17.36 and p-value of less than .001 show that the improvement was statistically significant; therefore, the null hypothesis was rejected. This finding means that the observed vocabulary gains were not merely descriptive improvements but were supported by inferential evidence. In classroom terms, the learners became more capable of understanding word meanings, recognizing target vocabulary, using words in sentences, and interpreting vocabulary through context after participating in interactive storytelling.

The findings are supported by the literature, which emphasizes that storytelling provides a meaningful context for vocabulary development. Banoth and Muthyala (2025) reported that storytelling can enhance vocabulary acquisition among young learners by integrating visual, auditory, and textual elements that support contextual understanding and retention. Similarly, Nami and Asadnia (2024) emphasized that storytelling allows learners to contextualize vocabulary in meaningful narratives and engage cognitively and affectively with words. These claims support the present result because interactive storytelling helped learners encounter vocabulary within stories, characters, events, and situations rather than as isolated word lists. This made vocabulary learning more concrete, memorable, and meaningful for Grade Four learners.

The study also supports the principles of the MATATAG English Curriculum, which emphasizes communication, literacy, interpretation, expression, and meaningful participation in language learning (Department of Education, 2023). Interactive storytelling aligns with this direction because it allows learners to listen, speak, interpret, answer questions, retell events, dramatize scenes, and use new words in oral or written responses. In this way, vocabulary instruction becomes more than word recall. It becomes a communicative activity where learners actively construct meaning, connect words to experiences, and practice using language in purposeful contexts.

However, the results also show that some vocabulary difficulties remained after the intervention. The most common challenge was difficulty using newly learned vocabulary words in sentences, reported by 18 learners (45.00%). Other challenges included difficulty understanding unfamiliar words during storytelling, limited confidence in answering questions orally, difficulty interpreting word meanings in the context of the story, difficulty retelling events using target vocabulary, shyness during dramatization, difficulty remembering target words, and a short attention span during longer storytelling sessions. These findings imply that while interactive storytelling improved vocabulary mastery, learners still need more structured sentence-building activities, guided oral practice, repeated vocabulary exposure, and confidence-building tasks. This is consistent with vocabulary research indicating that deeper vocabulary learning requires repeated use of words across contexts, not merely exposure during reading or listening activities (Wright & Cervetti, 2017; Zeng et al., 2025).

Overall, the findings justify the proposed STORY-WORDS: An Interactive Storytelling-Based Instructional Enhancement Plan for Grade Four Vocabulary Mastery. The plan is appropriate because it responds directly to the learners' improved posttest performance and remaining challenges in sentence usage, contextual understanding, oral confidence, and vocabulary retention. The plan may strengthen vocabulary instruction by integrating vocabulary unlocking, repeated exposure, context-clue activities, guided questioning, retelling, dramatization, vocabulary journals, sentence construction, and regular assessment. Therefore, interactive storytelling may be considered an effective and developmentally appropriate strategy for enhancing Grade Four learners' vocabulary mastery, especially when implemented with structured follow-up activities that support word meaning, recognition, sentence use, and contextual understanding.

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