

## iRead333: An intervention to improve silent reading comprehension skills of learners in English

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### ABSTRACT

Reading is a fundamental gateway to knowledge, empowering learners to build academic and lifelong skills. Yet, many students, especially those at intermediate levels, struggle with silent reading comprehension, often finding it a source of difficulty and frustration. These difficulties are also evident among grade IV learners at Miasong Elementary School, where many pupils experience frustration when reading silently in English. To address this challenge, the present study investigates the effectiveness of iRead333, a structured intervention program designed to improve silent reading comprehension skills through vocabulary development, localized reading materials, and diverse text exposure. Using an embedded experimental mixed-method approach, specifically an explanatory sequential design where interviews were embedded to explain the quantitative results, 46 selected learners from Miasong Elementary School participated in the study during the 2022-2023 academic year. Pre- and post-test assessments, along with interviews, were conducted. Statistical analysis including means, standard deviations, t-tests, and thematic analysis were employed. The results revealed that prior to the iRead333 intervention, learners were at frustration level in silent reading comprehension skills in English due to factors like limited vocabulary, low motivation, poor habits, and lack of support, distractions, and limited access to materials. After the intervention, they achieved instructional level, attributing to the features of intervention such as strategies in vocabulary, localized stories, and exposure to diverse materials. Finally, analysis showed that iRead333 effectively improved the learners' silent reading comprehension skills of the learners in English, as elaborated by the relationship patterns between identified factors and features. It is recommended to implement iRead333 within schools for improved silent reading comprehension skills.

**Keywords:** iRead333, silent reading comprehension skills

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### INTRODUCTION

Reading is widely recognized as a foundation of learning, equipping children with the skills to access knowledge, think critically, and succeed across subjects. Among its forms, silent reading comprehension plays a crucial role in fostering independent learning and long-term academic success. However, many learners—especially at intermediate grade levels—continue to struggle with this skill, often experiencing frustration and limited progress. As of September 2022, UNICEF (2023) had found, in the global context, that only a third of 10-year-olds are estimated to be able to read and understand a simple written story. About 64% of the rest are unable to reach the minimum proficiency level. In developing countries, data show that one in every eight children at the end of grade 4 is not able to read and understand plain texts. In relation to reading comprehension, silent reading is widely discussed as a critical component of literacy instruction in the elementary school classrooms as it provides opportunities for learners to build a love for reading (Sanders, 2020). Çetinkaya et al. (2019) have accepted the idea that silent reading does contribute to reading skills

achievement of elementary schools learners. However, reading skills, which include silent reading comprehension, have not improved significantly over the past few years (Idulog et al., 2023).

The declining performance in reading has been a persistent national educational issue in the Philippines (de la Fuente, 2022). In 2019, program for international learner assessment (PISA), revealed the Philippines poorly ranked last out of 79 participating countries in reading comprehension (PISA, 2019). Moreover, UNICEF (2023) exposed that less than 15% of Filipino children, about 3 out of 20, in the Philippines lack minimum proficiency in reading performance.

Also, numerous studies (e.g., Aquino & De Vera, 2018; Minoza & Montero, 2019) employing the Philippine informal reading inventory have reported frustration readers in intermediate grade levels, indicating a deficiency in silent reading skills. It was exacerbated when COVID-19 surfaced and forced schools to adopt new modes of learning (Villegas, 2021). Tomas et al. (2021) asserted that 80 percent of the Filipino learners did not achieve the minimum level required for proficiency in reading comprehension. Thus, understanding the role of

reading comprehension skills for learners cannot be overstated (Suson et al., 2020).

This educational issue is also evident at Miasong Elementary School, Miasong, Tupi, South Cotabato. In the latest secondary data given by the school, researchers found out that 60% of grade IV learners exhibited frustration level of skills in silent reading comprehension in the English subject based on Philippine Informal Reading Inventory during the school year 2022-2023. Furthermore, only 30 out of 75 (40%) of grade IV learners exhibited either instructional or independent levels of skills in reading comprehension. Based on the data, it is apparent that the issue of reading comprehension requires urgent attention.

After analyzing the reading comprehension difficulties at Miasong Elementary School, the researchers have found opportunities and pain points to deliberate a solution, as listed:

- (1) remedial reading session and
- (2) multimodal reading approach (printed booklet and e-books).

Considering the chosen solution, "iRead333" intervention program was formulated. The 'i' in iRead stands for 'improve', silent reading comprehension skills of frustrated readers and the '333' means the reading sessions will be conducted over three sessions and each session consists of three texts to be read, followed by the asking of three questions per text from lower-order thinking skills to higher-order thinking skills.

In connection, digital devices (Capodiecici et al., 2020) and printed reading materials (Halamish & Elbaz, 2020; Støle et al., 2020) are reading modes that improves reading comprehension. In addition, Hasan and Ahmad (2019), and Abergos et al. (2024) presented evidences of the effectiveness of reading remediation on boosting reading comprehension. With this, the researchers are prompted to conduct iRead333 intervention to improve silent reading comprehension skills in English of the learners.

### Statement of the Problem

The purpose of this study was to determine the effectiveness of the iRead333 intervention in improving learners' silent reading comprehension skills in English. Specifically, this study sought answers to the following research questions:

1. What is the level of silent reading comprehension skills in English of the learners prior to the implementation of the iRead333?
2. What are the underlying factors that contribute to the low level of silent reading comprehension skills in English of the learners prior to the implementation of the iRead333?
3. What is the level of silent reading comprehension skills in English of the learners after the implementation of the iRead333?
4. What are the primary features of iRead333 that positively improved the silent reading comprehension skills in English of learners after the implementation of the iRead333?
5. Is there a significant difference in the level of silent reading comprehension skills in English of learners before and after the implementation of the iRead333?
6. What patterns of relationship between the identified factors and features can explain the significant difference in silent reading comprehension skills in English of the learners?

### Intervention

It is widely recognized that reading comprehension is one of the main keys to fully understand a discipline in different fields. It is the start of something greater and a spearhead for success. Therefore, as early as possible, educators, institutions, and researchers must

formulate approach, strategies, ideas, and methods that focuses on the different dimensions of reading comprehension especially for elementary learners, which can be regarded as the formative years of an individual.

With this, iRead333 is an intervention that integrates both traditional and modern approaches to improve learners' reading comprehension, specifically silent reading comprehension in English. It consists of three reading sessions in a week, each session there are three texts, followed by asking three questions on each text ranging lower-order to higher-order thinking skills. The intervention utilizes a various strategies to help learners to achieve independent level in silent reading comprehension skills in English. The mentioned intervention consists of the following instructional solutions:

- (1) remedial reading session and
- (2) multimodal reading approach.

### Significance of the Study

The department of education could benefit from the results of this research by gaining insights that may support the successful implementation of the intervention. They could utilize the intervention to be implemented in other schools. Thus, this would help the agency to further enhance their presented strategies and interventions in improving reading, particularly in silent reading comprehension in English.

The research would provide the school with research-based and tested information about the intervention that they could do to improve their learners' skills in English silent reading comprehension. By using the solutions provided by the intervention, the institution could set up silent reading remedial sessions by integrating iRead333.

This scholarly endeavor would deepen the understanding of the teachers about different strategies to utilize in teaching and improving English silent reading comprehension skills. Teachers could adopt iRead333 in teaching silent reading comprehension, specifically in English classes.

Also, this paper would make some important contributions to the learners in terms of enhancing their capacity to construct meaning from text. Through the features of iRead333 intervention, the learners would improve their knowledge and skill through silent reading comprehension.

Lastly, the information generated from this study may be used as reference data for the researchers with the same study problem. This would serve as their additional reference that would give them supplemental background for future study purposes. The future researchers can also use iRead333 as their foundation to formulate future interventions for reading.

### Scope and Delimitation

The study determined the effectiveness of iRead333 in improving silent reading comprehension skills in English of the learners. The "333" in iRead333 stands for three sessions/week to conduct the intervention, three text to read during each session, and three questions that are categorize from lower- to higher-order thinking skills. Additionally, iRead333 utilized both low- to high-technology learning materials, particularly interactive reading booklets, offline e-booklets, and reading remedial modules (RRM).

Specifically, this research involved grade IV learners at the frustration level of silent reading comprehension skills, enrolled at Miasong Elementary School, Tupi 2 District, Miasong, Tupi, South Cotabato, Philippines. There are forty-six grade IV frustrating learners from the given secondary data.

The action research was conducted during the 2022-2023 school year, but the actual intervention and data collection were carried out

over a one-month period within this school year. This period included one week for pre-assessment and orientation, three weeks of implementing the iRead333 intervention, and one week for post-assessment and interviews.

## REVIEW OF RELATED LITERATURE

### Remedial Reading Session

The main goal of educational institutions is to produce individuals who are prepared for real-life. Knowledge and skills are imparted accordingly from books, journals, research, and experiences of the learners and the educators. For the reason that schools want to achieve their visions and missions, several actions will be taken just to ensure the quality of the teaching and learning, thus, explicitly mentioned, remedial reading session is one of these actions focusing on improving the learners' ability to read independently with comprehension.

The mentioned action is described as a short-term intervention aimed at reducing the number of learners who have difficulty learning to read and understand a written text (Siwagan & Ubayubay, 2025). It was suggested to be given to learners in primary and elementary and can also include high school if frustration levels are high (Castro, 2025; Gigante, 2024). Unlike language classes where teachers integrate reading, remedial reading sessions solely focus on improving the learner's engagement toward reading and understanding written text. This aims to correct poor reading habits that hinder learners from comprehending independently a text whether in the form of a question, a story, or any other reading material that needs the idea of comprehension.

The effectiveness of a remedial reading session depends on its structure and the characteristics of its participants. Gedik and Akyol (2022) stated that attention must be given to the diagnosis of major factors to achieve success in reading. Thus, remedial reading sessions must be well structured and must have a specific targeted goal that must be achieved at the end of the sessions. This was supported by the study that explained that pedagogical approaches in remedial classes, such as reading remediation, most often result in direct or explicit instruction to meet and cater to the needs of the learners in terms of reading (Greathouse, 2017). According to Marinelli et al. (2019), this kind of personalized instruction is great in anchoring the level of knowledge of each learner therefore they can be taught at the right level. In remedial reading, instructors must start on where and what the readers know and build on that particular skills until they can independently answer questions or understand a passage without the scaffold given by the teachers or instructors.

It was then elucidated that comprehension increased when the readers have the opportunity to participate in the conversations and explore ideas and concepts alongside the teacher as a guide (Greathouse, 2017). This means that when the readers or learners are actively involved in their journey to improvement in reading, there will be a higher stake that they would likely be able to learn well. Also, characteristics and attributes of the learners must be given importance to have a balance in the instruction and the information of the participants in order for the one who will implement the remediation to construct a material that is tailored fit to the goal, participants, and purpose of the remediation.

Several studies dating from the 20th to 21st centuries have presented positive results of reading remediation in improving the silent reading comprehension of learners. It may have utilized different approaches or strategies; it can be seen that these different reading remediation interventions' successes can be pointed out to common results, and that can be seen as readers improve from being frustration to independent. Tinker (2018) also added that these learners who

directly experience the success made to them by the remediation will most likely change their attitude towards reading and may ameliorate emotional struggles which can help in building the motivation of the readers to engage more in reading and to practice understanding a text in a meaningful way. If these attitudes and characteristics are developed, they can become key elements in the success of different strategies helping struggling readers in improving their skills in reading, particularly in silent reading comprehension.

Moreover, Cruz (2022) stated that it requires well-designed and on-going professional development to equip educators with the knowledge they need for effective reading instructions. If the teachers are equipped, surely, remedial reading sessions for the learners will be worthwhile and can have a selection of tools and materials that are fit for their problem in reading. The researchers cannot deny also that the success of remedial reading sessions requires the support of the administration of the school, the local leadership, and the stakeholders (parents, teachers, the learners themselves), to ensure smooth implementation and sustainable effect.

With that being said, iRead333 will utilize remedial reading sessions alike to its inspiration, the project 555 of the department of education. As much as it can be used for other disciplines, project 555, or "read in 5 minutes, ask 5 questions, in 5 days", is also effective in overcoming the frustration level of the learners in silent reading comprehension. The study of Nabor and Ortega-Dela Cruz (2022), supports the usefulness of the strategy. It shows in the study how the treatment group achieved independent silent reading comprehension with 36% from almost no independence.

Based on the related literature that supports the impact of the change from frustration to independency in reading comprehension, it is deemed by the researchers to implement a remedial reading session with iRead333 which means "in three weeks/session, there will be three texts to read and three questions to be asked". The three weeks can be supported by Marmonejo and Rufino (2019), two weeks; Korat et al. (2021), three weeks remedial reading remediation that both shows significant improvement of reading comprehension after the implementation of intervention. However, three texts and three questions integration per session is a novel strategy that will be tested as the intervention went through. In that time, the effectiveness will be measured, thus, real time evidence can be presented.

In general, the reading remedial session of iRead333 intervention will be a leap for the traditional way of improving silent reading comprehension skills in English to prove itself again that traditional ways can still be at par with the advanced and modern ways of improving silent reading comprehension skills in English and the learners' reading performance overall.

### Multimodal Reading Approach

Silent reading comprehension is a fundamental aspect of literacy development, but countless emergent readers continue to face predicaments with this skill (Rasinski, 2012; Reutzel & Juth, 2014; Reutzel et al., 2010). To help learners become proficient and holistic readers, there are an array of approaches that combine various sensory modalities to teach reading more effectively (Cisco Systems, 2008). These approaches are frequently referred to as "multimodal," as they integrate multiple senses such as auditory (Espendori et al., 2022), visual (Shabiralyani et al., 2015), kinesthetic (Cuevas, 2015; Demiroz, 2019; Suhadi et al., 2020), spatial (Ishikawa & Newcombe, 2021; Lowrie et al., 2018; Squire, 2012), olfactory (Olofsson et al., 2020), tactile (ThoughtCo, 2019), and gustatory (Scott, 2011) channels to help learners effectively process and learn information. Moreover, Law (2023) evaluated that these approaches have the potential to promote skills in silent reading comprehension. In particular, printed books and e-books or electronic books usage has been both suggested as effective multimodal reading tools (Mills & Unsworth, 2017; Stewart, 2012;

Synder, 2016). A study by Fálth et al. (2023) showed that having a combination of two or more modalities increases the interest and attention of the learners. The use of a multimodal reading approach has also been shown to benefit frustrating readers, as it supports the theory of dual coding. Where learners can process information effectively when presented in both visual and verbal format.

Matthew (1997) reported electronic books as one of the modes of learning, enable readers to engage in interactive activities that promote interest and motivation, thereby enhancing their comprehension skills. According to Takacs et al. (2015), the integration of images, text, and other print elements in graphic comics and novels has established multimodal support to enrich reading comprehension skills, making them akin to printed books. Although escalating research studies are evident, nonetheless, subsequent research is required to scrutinize the effectiveness of these multimodal tools—print and digital media—in boosting silent reading comprehension skills among frustration learners (Park & Lee, 2021).

Furthermore, studies asserted that printed textbooks have been regarded as a widely-accepted and prevalent reading modality. According to Synder (2016), the printed book is a physical medium, tangible work of fiction or nonfiction, on sheets of paper, fastened or bound within a cover (Jabr, 2013). The use of multiple sensory methods such as sight and touch to make meaning and process information is made possible through engagement with the material, which is facilitated by this mode of learning. Hence, this can effectively increase reading comprehension among students particularly in elementary pupils (Halamish & Elbaz, 2020; Støle et al., 2020). Gable and Thompson (2011) found that reading printed text increased individual reading speeds. Yet several studies examined printed books can be less convenient to travel due to their heaviness (Mangen & Kuiken, 2014) and can be a factor in why deforestation and other environmental issues will still occur. Since printed books are designed to be produced and distributed.

On the other hand, with its accessibility and convenience, the popularity of electronic books has been steadily increasing. This can be attributed to its digital format, which allows readers to access it through a range of devices such as personal computers, laptops, tablets, e-book readers, and mobile devices, as defined by numerous scholars (Attwell, 2023). It provides convenient access to a plethora of array of texts and even allows them to engage in reading while performing other activities through audiobooks. Also, from the investigation of Bus et al. (2015) e-books provide vast opportunities for readers by experiencing interactive and engaging features (Harman, 2023; Kotobee, 2022; West, 2020) including hyperlinks, multimedia, annotations, search and navigation, social and adaptive features that can certainly improve reading comprehension skills and even motivate learners to read more (Korat, 2010). Despite their gains, electronic books have drawbacks as well. According to Sahana (2021), the greatest disadvantage of using an e-books is the need for a compatible device. Although books are accessible online, devices should have the capacity to open electronic books to begin with in order to benefit from it. While one of the pros of electronic books is the feature of allowing readers to enlarge fonts for easier reading (Harman, 2023) yet, the study by Robb (2019) claimed that reading e-book may cause eye strain due to reading off an LCD screen and even might cause distraction from reading.

Even so, multimodal reading approaches combined with printed and electronic books have been established to address the recurring issues of reading comprehension and various learning needs of frustrating readers. As Stewart (2012) reported, these approaches allow students to experience an array of reading modalities to engage and interact with, enabling them to process and comprehend information using multiple sensory pathways.

In the Philippine context during the shift of the COVID-19 pandemic, students experienced multimodal approaches both printed books and electronic books. DepEd announced an amendatory DepEd order (DO), DO 34, s. 2022, on the 17<sup>th</sup> day of October 2022, allowing private schools to offer blended learning modality and full distance learning options to the learners. Hence, both print and digital media was used to cater to the varying needs of the students. With that e-books have emerged and print books have been found to foster retention and learning experience (Bresó-Grancha et al., 2022). Also, Don Timothy Buhain, the Chief Executive Officer of Rex Education, implied that since schools are now serving students with different setups, providing the option of both digital and printed books makes it easier for students to choose which learning material suits their needs. Believing in the effectiveness of the combination of using printed and electronic modalities to provide quality education and inclusive and flexible learning materials.

In the latest findings reveal an increasing interest in exploring the impact of multimodal reading approaches on enhancing silent reading comprehension among elementary school students. Previous studies have debunked some common misconceptions surrounding the use of electronic devices for reading. For instance, Wu and Amzah (2023) found that using e-books improved reading comprehension among Chinese primary school students, challenging the belief that electronic devices have a negative impact on comprehension. The study suggests that electronic devices can be effective tools for enhancing reading comprehension. The use of multimodal approaches to teaching letter and sound correspondence can help teachers reach all readers as they work to practice proper letter formation (Law, 2023). Encouraging students to engage all their senses can help them become proficient readers, and these strategies take a fresh approach to language instruction (Law, 2023; Mills & Unsworth, 2017; Synder, 2016).

Similarly, Korat (2010) found no significant difference in comprehension scores between students who read printed texts and those who read e-books. Hence, Danielsson and Selander (2016) reported that a multi-modality format for learning allows students to develop a deeper understanding of the text. She added that using interactive multimodal reading strategies, where the learner is the constructor of the events, perhaps, one way to increase the ability to understand a text. In agreement, Synder (2016) suggested that having students read from traditional, printed texts are equally as effective as having students read from digital texts.

In this study, the electronic book that will be used is a software application called Kotobee Author and Kotobee Reader. In the Kotobee Author, the electronic publication (KPUB2) format will be created and Kotobee Reader an app that will show the electronic book/module that the researchers have made. An e-book that is accessible for twenty-four hours and seamlessly available in seven days (Uncad, 2022). This system provides a gateway to promote the utilization of technology in conducting assessments and obtaining instant results (DepEd, 2020). The application is available and works on smartphones, tablets, and computers. It also engage learners with interactive and engaging content, such as video, audio, image click-animations, self-assessment questions, book widgets, and more. Furthermore, motivate students to learn since they can manipulate the e-book whether online or offline.

Apart from those mentioned characteristics, the electronic book has various interactive exercises and activities such as Bingo Card, Jigsaw Puzzle, Crossword, Memory Game, Mind Map, Pair Matching, Randomness, Spot the Difference, and Word Search. For its test and review exercises it includes Flashcards, Split Whiteboard, Timeline, Exit Slip, Web Quest, Worksheet, and Quiz. Lastly for its pictures and videos activities it includes Before/After, Frame Sequence, Hotspot Image, Image Carousel, Image Viewer, Piano, Random Images, 3d, Tip tiles, YouTube Player.

Overall, the latest research highlights the benefits of using a multimodal reading approach to enhance silent reading comprehension among elementary school students. The results challenge common misconceptions about the use of electronic devices for reading and highlight the effectiveness of both print and electronic media. By using a combination of these modalities, students can develop essential digital literacy skills while enjoying a more engaging and interactive reading experience.

### Silent Reading Comprehension Skills in English

When an individual attempts to silently comprehend a text or book, there are several factors that may affect comprehension. Reading fluency and background knowledge play an important role since readers who have trouble reading fluently may find it difficult to focus on comprehension (Gedik & Akyol, 2022). Thus, it is also essential to consider the vocabulary knowledge of the readers as it helps readers to understand meaning of words and phrases in the text (Al-Khasawneh, 2019). Additionally, Mohammed and Amponsah (2018) asserted insufficient knowledge on the strategies of reading comprehension such as in summarization and questioning techniques, may hinder learners silent reading comprehension. Limited exposure to reading materials, whether due to lack of access or opportunity can be a factor as well (Hiebert & Daniel, 2019). Also, lack of engagement on both the reader's and the text's parts might further hinder understanding (Redhair, 2017). Lastly, limited practice or exposure to reading comprehension tasks may prevent readers from developing the necessary skills and strategies for effective comprehension (Elleman & Oslund, 2019). Overall, these factors highlight the multifaceted nature of silent reading comprehension and emphasize the importance of addressing them to promote optimal understanding of written texts.

Reading fluency consistently emerges as a significant factor influencing silent reading comprehension. In enhancing overall academic achievement, one must note, particularly educators, that it is essential to know the pattern of relationship between reading fluency and reading comprehension. According to Gedik and Akyol (2022), to comprehend effectively one must have fluent reading skills. The attributes of fluent readers that allow them to decode individual words to comprehend text is very crucial for comprehension. In addition, Aşikcan and Saban (2020) emphasized the critical role of fluent reading in reading comprehension as it drives readers to maintain a coherent flow and grasp the text's meaning comprehensively. With the same notion, Waruwu et al. (2023) study revealed a positive correlation between fluent reading and reading comprehension levels among third-grade primary school students.

On the other hand, in a comprehensive review by Smith et al. (2021), it was found that background knowledge plays a crucial for silent reading comprehension in a thorough review. It is advised that teachers assist students in creating interconnected networks of background knowledge, as this improves comprehension by revealing new horizons of knowledge. The study also emphasized how prior knowledge has varied effects on stronger and weaker readers, with weaker readers gaining more from highly coherent texts when past knowledge is present in higher degrees.

Moreover, several researchers concluded that to procure successful reading English text, requires adequate vocabulary knowledge (Al-Khasawneh, 2019). The author added that it is impossible to comprehend a native or foreign language without understanding its vocabulary. In short, an extensive and varied vocabulary enhances reading comprehension, fluency and the ability to think critically to proficiently master language skills (reading, listening, writing, and speaking). Building on the empirical evidence that silent reading mode

can impact reading comprehension, it is important to further explore factors that can influence comprehension in this mode. Scholars have scrutinized the relationship between vocabulary knowledge and silent reading comprehension in both English as a second language learners and native speakers of English. They scrutinized factors that affect the reading comprehension of 95 Latino bilingual learners in fifth and sixth grade from five different school. She employed quantitative approach to analyze the data gathered. The result of the study determined lack of familiarity with vocabulary in the test passages and questions is a primary determinant that negatively affects the reading comprehension of these learners in contrast, learners who were more familiar with the vocabulary used in the test performed significantly better on the comprehension test. The same with prior studies regarding this skills, they arrived with the same conclusion (Al-Khasawneh, 2019; Anjomshoa & Zamanian, 2014; Gu, 2017; Karakoc & Kose, 2017; Mebarki, 2011; Nouri & Zerhouni, 2016) and claimed vocabulary knowledge is a primary factor to have a successful comprehension in reading in both first and second language learning (Joshi, 2005; Qian, 2002; Ricketts et al., 2007).

Awareness of one's own thinking is an attribute that helps individuals actively engage in their cognitive processes. This explains the idea that if a learner is in control of its own learning while putting emphasis on the way it understands and remember a certain scripture, that particular learner will achieve a higher cognitive achievement than those learners who most likely learn unconsciously as supported by Zhang and Seepho (2013), the students who used more metacognitive strategies tended to score higher on the reading comprehension test, whereas the students who used fewer metacognitive strategies were likely to get low scores as stated in the study of Muhid et al. (2020). On the other hand, this concept can be branded in education as a higher order thinking skills type of acquiring and understanding information. In connection to silent reading comprehension, it is suggested that a reader must be taught and practiced to utilize its metacognition for it to understand the text in depth in order for them also to evaluate, judge, and self-assess their own self.

To be at par with learning in the 21<sup>st</sup> century, metacognitive strategy must be used to reinforce learning especially in silent reading comprehension. Studies have claimed that readers engage in meta-comprehension processes during reading and that they used these processes to inform their prediction and judgement that will lead them not only to comprehend the process but also the performance (Upadhyay et al., 2022). Scholars also presented that metacognition systematically demonstrated the predictive role of reading and that it is necessary that students efficiently apply cognitive and metacognitive reading strategies to achieve better reading comprehension performance (Rodrigues et al., 2022).

Thus, silent reading comprehension focused more on formulating meanings while reading silently. This means there are a little less limitations and corrections unlike oral reading. In this type or reading settings, readers will be more aware of the text they read rather than the articulation of it. This is the reason why metacognition is a fitting action to apply in silent reading comprehension. Cromley and Kunze (2020) explained that the relationship of metacognition to learning and comprehension has led the educational institutions to a multitude of successful learning program for metacognition does not only affect one's own awareness but it also affects the learner's affective domain that must be always tied to either the psychomotor or the cognitive domain of the learner to be holistically knowledgeable. Furthermore, metacognition is beginning to tap into similar ideas like social learning theory, cognitive behavior modification, personality development, that

is somehow seen by the educational institutions' effective approaches in teaching, thus includes reading comprehension.

With this, it can be said that readers will start to monitor their reading comprehension as soon as they know how to decode short meanings. Through them being aware of the processes of how they understand meaning from the passages, they are given the authority to control what they want to know, how they will know it, and how they act upon what they know while making meaning out of it. It is also important that even though emancipation is given to the learners to learn on their own, instructors and teachers will always be there for them to be their guide towards improving reading comprehension, particularly in silent reading, to avoid unnecessary situations. And so, it can be said that having the awareness, knowledge and control to one's own cognitive processes, can be regulated to achieve certain purposes, but most especially a great and positive achievement reading comprehension.

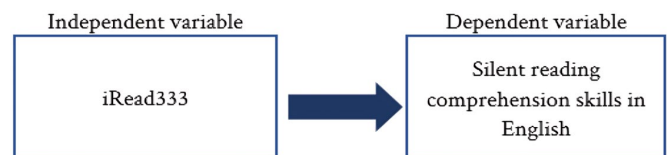
In addition, engagement plays a crucial role in education by fostering active participation, motivation, and interest in the subject matter. Fredricks et al. (2021) highlight that engagement encompasses cognitive, emotional, and behavioral aspects, leading to students' investment in learning activities and tasks. When teachers successfully capture learners' attention and interest, their curiosity expands, resulting in a daily desire to acquire new knowledge.

Lastly, National Reading Panel's (2000) report emphasizes the importance of extensive silent reading practice as an effective method for enhancing text comprehension. Through reading different types of texts, learners can apply variety of strategies and can efficiently learn that aid them in understanding what they have read. Allington et al. (2002) further explained that providing ample practice and materials gives opportunity to the learner to improved their vocabulary and comprehension however, if this thing will not put into practice learners may struggle to develop the necessary reading comprehension skills, resulting in difficulties in comprehending complex texts and extracting meaning from the written material. Mede and Gir Korkmaz (2017) also supported Allington et al.'s (2002) idea that access to a wide range of reading materials including books and other texts is crucial for expanding vocabulary, enhancing background knowledge, and developing a deeper understanding of different genres and writing styles. Thus, when learners lack exposure to reading materials and practice it, their progress in silent reading comprehension can be severely hindered.

Overall, enhancing silent reading comprehension involves multiple factors that contribute to the development of this crucial skill among learners. Understanding these underlying reasons is essential for educators to foster strong and critical silent reading comprehension skills, empowering students to become lifelong readers.

## CONCEPTUAL FRAMEWORK

The researchers based the proposed solutions on dual coding theory, which supports the main tool to be used during the intervention. Paivio's (1986) dual coding theory supports the multimodal reading approach for utilizing digital and printed reading materials to reinforce frustrated learners' ability to comprehend a written text. Utilizing both traditional and modern approaches allows the researchers to combine the best features of each, making the intervention both relevant to traditional learners and aligned with current educational trends.



**Figure 1.** Conceptual framework (Source: Authors)

Based on the chosen theory, this study conceptualized that the independent variable, iRead333, is effective in improving the silent reading comprehension skills of the pupils, the dependent variable. This causal relationship between the variables is represented by a single-headed arrow which indicated that the more the pupils are exposed to the intervention, the higher their level of silent reading comprehension skills in English.

The framework of this study is supported by Abergos et al. (2024) which mentioned that remedial reading classes reported impressive feats in reading interventions. Thus, multimodal approaches that integrate both printed books and e-books may provide students with the benefits of both modalities and improve their overall learning outcomes. It was also revealed that there is a pressing need to develop a reading culture in school to attain sustainability in ameliorating silent reading comprehension problems (Abdulsalam, 2022).

Some studies, such as Torgesen (2005) and Acita et al. (2022), argue that remedial reading programs may not be effective, often citing issues of limited engagement, lack of transferability, or narrow instructional focus. These critiques highlight the importance of designing interventions that not only remediate but also sustain learners' comprehension growth. The iRead333 program was intentionally structured to address these limitations. Its "3-3-3" sequence—three sessions, each consisting of three texts followed by three comprehension questions progressing from lower- to higher-order thinking skills—ensures systematic pacing and repeated exposure, promoting both fluency and comprehension. The multimodal integration of print and digital resources widens instructional approaches, while localized stories enhance cultural relevance and learner motivation. Finally, the gradual progression of questions from literal to inferential to critical fosters higher-order thinking and deeper comprehension. These features collectively distinguish iRead333 from traditional remedial approaches, offering a more engaging and sustainable model for improving learners' silent reading comprehension (Figure 1).

## Hypothesis

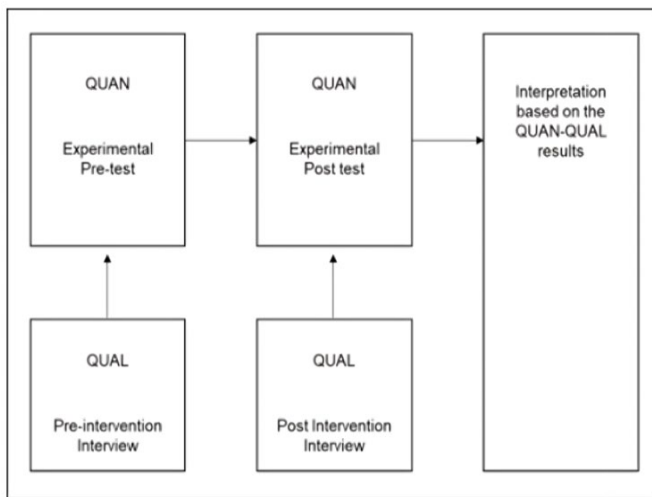
There is no significant difference in the level of silent reading comprehension skills in English of pupils after the implementation of the iRead333 program.

## Definition of Terms

The following are the key terms utilized in the research as defined:

**Reading intervention:** Conceptually, this refers to a curriculum or set of practices aimed at helping learners with reading difficulties (Institute of Education Sciences, 2020). Operationally, it refers to iRead333, a reading intervention consisting of conventional and innovative teaching-learning strategies such as remedial reading sessions and multimodal reading approach.

**Remedial reading session:** Conceptually, it depicts the explicit instruction to meet and cater the needs of the learners in terms of reading (Greathouse, 2017). Operationally, it is about a 3-week reading session which frustration readers improve their silent reading



**Figure 2.** Research design (Source: Created by the authors)

comprehension skills in English through reading for three texts and asking three questions afterwards, every three days in a week.

**Multimodal reading approach:** Conceptually, this is defined as an integration of multiple senses such auditory, visual, kinesthetic, spatial, olfactory, tactile, and gustatory pathways to help learners effectively process and learn information (Lawless, 2019). Operationally, it involves the use of printed books and electronic books (e-books) during the session to promote silent reading comprehension skills of the learners.

**Silent reading comprehension skills:** Conceptually, this refers to the ability to understand and interpret written text without vocalizing the words (Hale et al., 2007). Operationally, this denotes the level of understanding of the pupils based on their Phil-IRI pre assessment results.

## METHODOLOGY

### Research Design

This study employed an embedded experimental mixed-method design, which integrates both quantitative and qualitative approaches to provide a more comprehensive understanding of the research problem (Guetterman, 2019). Such a design combines the strengths of numerical analysis and narrative insights, allowing for richer interpretation through complementary methods (George, 2021). Specifically, an explanatory sequential embedded design was adopted, wherein the quantitative results from the pre- and post-tests formed the primary strand, and the qualitative interviews were embedded to help explain and contextualize those statistical results (Creswell & Clark, 2017) (Figure 2).

### Sample

The researchers employed a combination of purposive and saturation sampling techniques in selecting the study participants. Purposive sampling, a non-probability method in which participants are deliberately chosen based on specific characteristics (Frost, 2022; Nikolopoulou, 2022), was applied to identify forty-six grade IV learners classified at the frustration level of silent reading comprehension in the Phil-IRI results. For the qualitative phase, saturation sampling was used, wherein interviews were conducted until no new themes or insights emerged, ensuring sufficient depth of data.

According to Suggate et al. (2013), by grade 4, children are expected to be established readers for meaning. However, secondary data revealed that 60% of grade IV learners at Miasong Elementary School were at the frustration level of silent reading comprehension in English during 2022-2023, making them an appropriate sample for this study.

Saturation sampling, a widely used approach in qualitative research, involves collecting and analyzing data until no new information emerges, indicating that a thorough understanding of the phenomenon has been reached (Charmaz, 2014; Glaser, 1967). In this study, saturation sampling determined the number of participants included in the interviews, with all 46 learners ultimately serving as participants in this phase.

### Locale of the Study

The study was conducted in Miasong Elementary School–Tupi II District, Division of South Cotabato, a public school located in Purok 3, Miasong, Tupi, South Cotabato, Philippines. The school is regarded as one of the most competent schools in Tupi, gaining achievements in many categories: academic, sports, music, and arts. However, based on the secondary data that the researchers gathered, the school recorded about 60% of readers who are in frustration level of silent reading comprehension in English subject in grade IV alone. Considering the data, this prompted the interest of the researchers to conduct a research and intervention program in this school.

### Instrument

In this study, the researchers used two sets of instruments:

- (a) silent reading comprehension for English test and
- (b) researcher-made interview guides.

The first instrument is the silent reading comprehension for English test based on the Phil-IRI silent reading test. It consisted of four passages with thirty total questions used to gauge the silent reading comprehension skills of the learners during the pre- and post-test. The second instrument is the researcher-made interview guide. Which consisted of eight questions designed to elicit responses about vocabulary skills, reading fluency, prior knowledge, comprehension strategies, exposure to reading materials, engagement, language barriers and practice. The second interview guide included eight questions on the features of iRead333 that influence the post-test scores of the learners in their silent reading comprehension skills in English. Both interview guides were validated by three experts in education and reading. The overall results of the interview guide after validation is 4.63/5 which imply that it is highly valid to be used in intervention.

### Materials

The iRead333 utilized the following reading materials:

- (1) RRM and
- (2) e-books.

These were used as an instructional materials to improve the silent reading comprehension skills in English of the learners. Specifically, the RRM was used as low tech reading material while the e-book was utilized as interactive high tech medium to improve silent reading comprehension. These reading materials were examined by different researcher have been both suggested as effective multimodal reading tools (Stewart, 2012; Synder, 2016; Mills & Unsworth, 2017) and has a unique feature that can help learners to read comprehensively. In addition, they consisted of different contextualized stories with lesson, stories that promotes peace education, the sustainable development goals (SDGs), and inclusivity. The reading materials were subjected to validation by the experts to evaluate the effectiveness and correctness of the stories.

**Table 1.** Scale

Scores	Percentage	Qualitative description	Verbal interpretation
25-30	80-100%	Independent level	High
18-24	59-79%	Instructional level	Average
0-17	58% and below	Frustration level	Low

### Data Gathering Procedure

DepEd Order No. 16, s. 2017, under Special Provisions, letter C or research ethics, stated that the researchers must ensure confidentiality in handling data of the respondents and must provide consent forms where necessary. Thus, the data gathering of this study was done in a professional manner to ensure integrity, validity, and privacy of the data collected. Before the official data gathering process, the researchers have sent a letter to the head of Miasong Elementary School to ask for permission to share the researchers the data of the school in reading that was then used as the problem of this study. In gathering the official data, the researchers sent a letter again to the principal of Miasong Elementary School to ask for permission to conduct the research in the school. Upon the approval of the request, the researchers met with the section advisers of grade IV to discuss with them the steps to be taken for iRead333 intervention.

With the help of the teachers, the researchers were introduced to the research subjects. The researchers informed the subjects about the action that would be taken as long as they were under the intervention. Siegle (2015) stated that it is a requirement that before the acceptance of an affirmation decision by the subjects, they must know the purpose, nature, duration, the method: all convenient and inconvenient, and the effects they might experience after the intervention. In addition, because the learners were minors, the researchers also gave consent and assent forms with complete information about the gathering procedures in order for the parents and guardians of the learners to analyze the activity where their child would participate.

Before the implementation of the reading intervention, pre-tests were administered to the learners. All testing and instruction were conducted by the researcher in coordination with the class teacher; testing conditions (time, quiet room) were standardized. The learners were given three minutes to read the text and after that they would be given three questions incorporating with higher and lower thinking skills question. After answering, scores for the silent reading comprehension were collected. A short pre-intervention interview was also administered.

The researcher conducted iRead333 for three weeks. These weeks have included three sessions of silent reading to practice with the learners. This duration is based on Marmonejo and Rufino (2019), and Korat et al. (2021) that three weeks remedial reading remediation would show significant improvement of reading comprehension after the implementation of intervention. After implementing the iRead333 program, post-tests were administered to the subjects. The researcher also conducted a post-intervention interview. The data were collected and subjected to statistical analysis and thematic interpretation.

### Data Analysis

Descriptive statistics were used to summarize and describe the characteristics of the study participants, as well as the pre and post-test of silent reading comprehension. These involve calculating measures such as means (Ms), standard deviations (SDs), ranges, and percentages. The scale in **Table 1** with range and description describes the level of reading comprehension based on the Phil-IRI level of comprehension.

**Table 2.** Level of silent reading comprehension skills in English in pre-test

Comprehension score (in %)	f	%	Qualitative description	Verbal interpretation
80-100%	0	0.00	Independent	High
59-79%	8	17.39	Instructional	Average
58% and below	38	82.61	Frustration	Low
<b>Mean</b>	<b>13.57 (45.23%)</b>		<b>Frustration</b>	<b>Low</b>

Additionally, to analyze the difference between the scores before and after the test, a t-test for dependent samples were used. Pre-test results were compared to the post-test results to determine if there was a significant difference in silent reading comprehension after the intervention. The alpha level for significance level is set at  $p < .05$  (Riffenburgh, 2012).

Furthermore, thematic analysis was employed to interpret the qualitative data collected from learner interviews (Tery et al., 2017). Interviews were transcribed and coded for recurring themes related to the iRead333 intervention program, with three cycles of coding conducted to refine categories (Saldaña, 2009). Importantly, these qualitative themes were integrated with the quantitative results to provide a more holistic explanation of the findings.

For example, pre-intervention themes such as limited vocabulary, poor reading habits, and low motivation helped contextualize learners' low pre-test scores, while post-intervention themes such as guided vocabulary strategies, localized stories, and access to diverse materials explained the observed improvement in post-test scores. Overall, these mixed-methods data analysis approach was expected to provide a comprehensive understanding of the effectiveness of iRead333 on silent reading comprehension skills in English of the learners, including both quantitative and qualitative data analysis (Braun & Clarke, 2022).

## RESULTS

**Table 2** presents the level of silent reading comprehension skills of the learners before applying the iRead333 reading intervention program. As can be seen in **Table 2**, 38 pupils (82.61%) were at the frustration level, eight pupils (17.39%) were at the instructional level, and none were at the independent level of silent reading comprehension in English before the implementation of the iRead333 intervention.

Overall, the mean score of the learners during the pre-test was 13.57 or 45.23%, which is described as frustration. This implies that the learners had a low level of silent reading comprehension skills in English before the implementation of the iRead333 reading intervention program.

Using the item difficulty index (ID), it provided an analysis of the learners' performance on different types of questions: literal, inferential, and critical. Literal questions were generally easier, with items 1, 2, and 5 classified as easy ( $ID > 0.60$ ) and items 4, 6, 8, 15, 16, and 23 moderately difficult ( $0.40 < ID \leq 0.60$ ).

Some literal questions (3, 7, 14, 17, 18, 19, and 24) were difficult ( $ID = 0.22$  to  $0.33$ ). Inferential questions were more challenging, with item 9 very difficult ( $ID = 0.20$ ) and items 10, 11, 20, 25, 26, 27, and 28 ranging from moderately difficult to difficult ( $ID = 0.24$  to  $0.43$ ).

Critical questions had similar difficulty, with items 21, 29, and 30 moderately difficult ( $ID = 0.41$  to  $0.46$ ) and items 12, 13, and 22 difficult ( $ID = 0.22$  to  $0.30$ ). This suggests students handle literal questions better

but struggle with inferential and critical questions. Numerous studies (e.g., Aquino & De Vera, 2018; Minoza & Montero, 2019) employing the Phil-IRI assessments have reported the similar result, identifying frustration-level readers in intermediate grade levels, indicating a deficiency in silent reading skills. This entails that the frustration level is the struggling readers who may have difficulty with reading comprehension and fluency (Reutzel & Juth, 2014). According to the DepEd (2012), frustration is the lowest level wherein the pupils show withdrawal from reading situations by refusing to read. Additionally, at the frustration level, the student decodes 89% or less of the words and can comprehend only 50% of the material. **Table 3** presents the themes on factors that contribute to frustration in the silent reading comprehension skills in English of grade IV learners.

**Theme 1. Limited vocabulary in English:** The results show that one of the fundamental factors affecting the silent reading comprehension of learners in English is their limited vocabulary in the mentioned language or subject area. Specifically, the learners did not comprehend unfamiliar terms and texts in English. This was attested to by the learners who mentioned:

“Opo. naranasan ko na rin (hindi maintindihan ang binabasa) kasi hindi ako marunong magbasa ng English.” [Yes. I also experience (reading difficulty) and I don’t know how to read English.] (pre-intervention interview participant 10–lines 8, 9)

Furthermore, the learners also narrated that they cannot comprehend what the teacher reads and says in English. This is supported by:

“Tong nag basa si teacher tapos tong gi basa nya nga English hindi namon masabtan.” [When our teacher read and (s/he) read English and we (classmates) can’t understand.] (pre-intervention interview respondent 5–lines 20, 21; participant 15–lines 56, 60)

These statements show that children with limited English vocabulary skills can impede their improvement in the area of silent reading comprehension in English. This is supported by Melby-Lervåg & Lervåg (2014) and Trakulphadetkrai et al. (2020) which elaborate that the learners’ ability to comprehend English texts is affected by their ability to decode and recognize the representation of words in English, including low knowledge in general language proficiency. Additionally, several researchers have revealed that successful reading of English text requires knowledge of vocabulary (Al-Khasawneh, 2019). Viera (2017) added that it is impossible to comprehend native or foreign languages without understanding the vocabulary within the text. Therefore, language learners need to learn and accumulate vocabulary to master a language, enabling them to improve the aforementioned skill.

**Theme 2. Low motivation in reading:** Based on the results collected from the interview, it was observed that the learners have low motivation in reading, resulting in frustration with their silent reading comprehension skills in English. During the interview, it was evident that the learners lacked interest in reading:

“Oo. Nami mag hampang kaysa sa mag basa.” [Yes. It’s more fun to play than to read] (pre-intervention interview: respondent 3–line 42; participant 7–line 67)

Moreover, the learners’ lack of motivation reduced their enthusiasm for reading. This is supported by one learner, who stated:

“Kay gina sugo ko tapos uhm hmm ma istorbo ko tapos ginatawag ko ni lola para may baklon patubod sang tubig tapos amo lang to.” [I am being ordered to do something, um hm. I am disturbed; afterward, I will be asked to buy something or to

let water flow, and that’s it.] (pre-intervention interview: participant 5–lines 255-256)

Factors such as interest and enthusiasm for reading collectively contribute to the lack of reading motivation among the learners. Consequently, less motivated students tend to steer clear of reading, resulting in a detrimental effect on their reading comprehension (Lack, 2021). Whether stemming from disparate interests, perceived comprehension difficulties, or conflicting obligations, these factors emphasize the significance of tackling motivational hurdles to foster fruitful reading engagement and comprehension among students. Conversely, Ahmadi et al. (2013) uncovered that motivated learners are likely to experience a positive impact on the enhancement of their reading comprehension skills.

**Theme 3. Poor reading habit:** One of the results that the interview revealed as a factor that contributed to the frustration in the silent reading comprehension skills of the learners was their poor reading habits. A construct presented that the learners struggle to build a reading habit. Hence, this statement can be supported as one of the learners noted:

“Hmm, di sya part sa akon nga habit ang magbasa.. kay tung sadto nagstart ko pero indi matapos.” [Hmm, reading is not part of my habit ... because when I tried to start it, I can’t finish it.] (pre-intervention interview: participant 6–lines 170, 184)

The learners likewise did not have a reading routine which also resulted in the lack of time to practice their silent reading comprehension skills in English:

“Hindi kaayo (gabasa everyday) ... Hmm, lisod mag ano, magbasa kay wala ko nasananay.” [(I) don’t read every day ... Hmm, it’s difficult to ... to read because I’m not used to.] (pre-intervention interview: participant 6–lines 170, 184)

Hence, children who have not established their reading habit as early as possible may see reading as a tiresome work resulting in deterioration not only of their reading skills but also of their comprehension. Lack of reading habit or no reading habit will most likely lead to stagnation of reading comprehension skills (Pham, 2021). This means that students’ reading habits have remarkable effects on their reading comprehension. Aquino and De Vera (2018) and Bergen et al. (2020) emphasize that learners who struggle to develop a consistent reading routine can exacerbate existing challenges in comprehension and motivation.

**Theme 4. Lack of family support:** One of the underlying factors found in the interview that contributed to the frustration of silent reading comprehension skills in English for grade IV is the lack of family support. With this being stated, the learners had parents who did not guide them in reading. Specifically, the learners have parents who do not guide them in reading:

“Si mamang ... busy siya kis a sa ubra sa balay.” [My mother ... is busy with household chores.] (pre-intervention interview: participant 6–line 218; respondent 21–lines 96, 117)

The learners also had siblings who, in turn, did not teach them to read:

“Waay, kay ga tulog si ate kay lisod ila nga gina ano (himo) ... ga tulog na deretso sya ... apat man kami ... nag asawa na tabi tong isa ko nga ate ... nag asawa na tabi tong isa ko nga ate [No one, because my sister sleeps early due to her work commitments ... She sleeps right away when she arrives home ... We’re four siblings ... my other sister is married ...] (pre-intervention interview: participant 7–lines 114, 118, 126, 134, 138)

**Table 3.** Factors contributing to frustration level of silent reading comprehension skills of learners in English

Utterances	Code	Construct	Theme
"... Atong tanan nga ano (gibasa) ang na intindihan ko lang mag clean ... Hmm budlay ang english nga terms." [... I only understood the word clean (not the whole lesson) ... Hmm, it's difficult to understand the English term.]	Learner does not comprehend unfamiliar terms	Learners do not comprehend unfamiliar terms and texts in English	Limited vocabulary in English
"...naranasan ko na rin (hindi maintindihan ang binabasa) kasi hindi ako marunong magbasa ng English." [Yes. I also experience (reading difficulty) and I don't know how to read English.]	Learner does not comprehend English texts		
"Tong nag basa si teacher tapos tong gi basa nya nga English hindi namon masabtan." [When our teacher read and (s/he) read English and we (classmates) can't understand.]	Learner does not comprehend what their teacher reads in English	Learners do not comprehend what the teacher read and says in English	
"Nabudlayan ko mag-intindi sa ginahambal ni Teacher taga English time." [I'm struggling to read every English time.]	Learner does not comprehend what their teacher says in English		Low motivation in reading
"Oo. Nami mag hampang kaysa sa mag basa." [Yes. It's more fun to play than to read.]	Learner prefers to play than to read texts	Learner's lack of interest in reading	
"Kay wala ko nalingaw (magbasa)." [It is because I'm not entertained in reading.]	Learner does not enjoy reading		
"Na tamad ko (magbasa)." [I'm too lazy to read.]	Learner is lazy to read text	Learner's lack of enthusiasm in reading	Poor reading habit
"Wala, kapoy lang magbasa." [Nothing, its tiring to read.]	Learner feels tired in reading		
"Hmm, di sya part sa akon nga habit ang magbasa ... kay tung sadto nagstart ko pero indi matapos." [Hmm, reading is not part of my habit ... because when I tried to start it, I can't finish it.]	Learner does not have the will to finish what they are reading	Learners struggle to build a reading habit	
"Nagtisting ko basa adlaw satong grade 3 ko, pero subong nga grade 4 wala na" [I tried reading every day when I'm in my grade 3 but now that I'm grade 4, I stopped]	Learner tries to build a habit but stopped		
"Hindi kaayo (gabasa everyday) ... Hmm, lisod mag ano, magbasa kay wala ko nasanay." [(I) don't read every day ... Hmm, it's difficult to ... to read because I'm not used to.]	Learner struggles in reading because it is not part of their routine	Learner does not have a reading routine	
"... wala ko gabasa adlaw karang habit pero masuya ko sa uban kay kabalo sila magbasa ..." [...I don't read everyday and have a habit but I feel jealous to others who know how to read.]	Learner does not read every day and no reading habit		
"Si mamang... busy siya kis a sa ubra sa balay." [My mother ... is busy with household chores.]	Learner is not guided by their mother	Learner has parents who do not guide them in reading	Lack of family support
"Ga obra si papa." [My father is working.]	Learners are not guided by their father		
"Waay, kay ga tulong si ate kay lisod ila nga gina ano (himo) ... ga tulong na deretso sya ... apat man kami ...nag asawa na tabi tong isa ko nga ate... nag asawa na tabi tong isa ko nga ate." [No one, because my sister sleeps early due to her work commitments ... She sleeps right away when she arrives home ... We're four siblings... my other sister is married.]	Learners have siblings who do not have time to teach them read	Learners has sibling who do not taught them to read	
"Ay ga tabang man sa akon tapos ang kuya ko indi mag kabalo mag basa ako lang ga tudlo sa iya grade six na siya indi siya kabalo mag basa." [Sometimes someone helps me and my brother can't read and I'm the one who taught him even though he's already grade 6.]	Learner has sibling who do not know how to read		Environmental distractions in reading
"Hindi ako makapokus, kay gahod sa balay." [I can't focus because it's noisy in our house]	Learner struggles to focus when the surroundings are noisy	Learner struggles to focus when the surroundings and their family members are noisy	
"Huo budlay magbasa, kay gahod akon nga manghod... ga hibi... tapos tong kung ga away ning gahod gahod gahod gid na sila." [Yes, it's difficult to read because of the loud noise from my siblings when they cry and fought, they are so noisy.]	Learner struggles to focus when the family members are noisy		
"Kay gina sugo ko tapos uhm hmm ma istorbo ko tapos ginatawag ko ni lola para may baklon patubod sang tubig tapos amo lang to." [I am being ordered to do something, um hm. I am disturbed; I will be asked to buy something or to let water flow, and that's it.]	Learner struggles to focus when they are asked to do household chores	Learners struggle to focus while reading when they are interrupted with household chores	Environmental distractions in reading
"Nagalibog ko kung diin akon unahon." [I'm confused of what to do first.]	Learner is confused what to do first		
"... Mabudlayan ko kung gapamusic ko ... kay gahod ... Kag ano pagid kag hmm ng ga wala akon pokus sa pagbasa." [It's very difficult when I listen to music ... so noisy ... And also, my I will not focus to what I'm reading.]	Learner has difficulty in reading while listening to music	Learner has difficulty reading while doing recreational activities	
"Budlay gid, ano magbasa kag kung may ginahimo ko nga iban pa... peras sang pagtan-aw TV... Kay malibog ko." [It's so hard, to read and if I'll do other works like watching TV... Because I will be confused.]	Learner has difficulty in reading while watching television		
"Mga balasahon nga indi ko kaya (basahon)." [There are reading materials but I can't read it.]	Learner encounters level-inappropriate reading materials	Learner encounters level and interest - inappropriate reading materials	Limited access to reading materials
"Wala (ko ginabasa) kay hindi to nakon alam pero basi makabasa kong iban nga hindi amo ..." [I don't read it because I have no idea or either I can read something I should not read ... I don't like reading love story always.]	Learner encounters interest-inappropriate reading materials		
"... ginabalik man gud ang libro sa school, amo na wala ko basahon sa balay..." [... the books are returned to school, that's why I don't have any books to read at house]	Learners do not have their own reading materials	Learners does not have reading materials	
"Oo wala kami libro sa amon balay." [Yes, we don't have books in our house.]	Learners do not have reading materials at home		

It is evident that without active engagement and guidance from parents, learners are more likely to encounter frustration in silently understanding and interpreting texts. According to Xiaofeng et al. (2018), parental absence had an impact on children's reading comprehension ability. Without proper guidance and support from parents, learners may struggle to navigate complex texts and develop effective reading strategies, leading to frustration and difficulties in comprehension (Almutairi, 2018). Previous studies have also provided evidence that parental involvement in reading activities improves both reading and reading comprehension as an academic skills (Baker, 2003; Çalışkan & Ulaş, 2022; Epstein, 2001; Mraz & Rasinski, 2007; Tonn & Wailheiser, 2007).

**Theme 5. Environmental distractions in reading:** Distractions during reading are also one of the factors that can affect the reading comprehension of learners, whether they come in the form of noise distractions, household interruptions, or engaging in recreational activities—as found in the results of the interview. Specifically, learners struggle to focus when their surroundings are noisy or when family members interrupt them:

“Huo budlay magbasa, kay gahod akon nga manghod ... ga hibi ... tapos tong kung ga away ning gahod gahod gahod gid na sila.” [Yes it's difficult to read because of the loud noise from my siblings when they cry and fought, they are so noisy.] (pre-intervention interview: respondent 4—lines 111, 115, 119; participant 5—lines 119, 120)

Other learners also struggled to focus while reading when they were interrupted by household chores. As affirmed:

“Kay gina sugo ko tapos uhm hmm ma istorbo ko tapos ginatawag ko ni lola para may baklon patubod sang tubig tapos amo lang to.” [I am being ordered to do something, um hm. I am disturbed; afterward, I will be asked to buy something or to let water flow, and that's it.] (pre-intervention interview: participant 5—lines 255-256)

There were also learners who had difficulty reading while engaging in recreational activities:

“Budlay gid, ano magbasa kag kung may ginahimo ko nga iban pa ... peras sang pagtan-aw TV ... Kay malibog ko.” [It's so hard, to read and if I'll do other works like watching TV ... Because I will be confused] (pre-intervention interview: participant 3—lines 102-103; respondent 6—lines 265-266)

In summary, undivided focus and attention are crucial for effective text comprehension. This supports that that a child who has lost focus on reading because of distractions will most likely fail to grasp the meaning of what they are reading. Additionally, May and Elder (2018) stated that it interferes with attention and working memory, negatively affecting GPA, test performance, recall, reading comprehension, note-taking, self-regulation, and efficiency. Some studies stated that distracted learning has quite a detrimental effect on learning (Glass & Kang, 2019; Jamet et al., 2020; Neiterman & Zaza, 2019; Schmidt, 2020). Paul (2013) also expounded that when a learner is distracted during learning, the brain processes and storing information will becomes less useful and that would result in less adept knowledge adaptation.

**Theme 6. Limited access to reading materials:** The results show that one of the fundamental factors affecting the silent reading comprehension of English of the learners is the limited access to reading materials. Specifically, learners encounter inappropriate reading

**Table 4.** Level of silent reading comprehension skills in English in post-test

Comprehension score (in %)	f	%	Qualitative description	Verbal interpretation
80-100%	24	52.18	Independent	High
59-79%	16	34.78	Instructional	Average
58% and below	6	13.14	Frustration	Low
<b>Mean</b>	<b>22.96</b>	<b>(76.53%)</b>	<b>Instructional</b>	<b>Low</b>

materials in terms of level and interest. During the interview, learners revealed that:

“Wala (ko ginabasa) kay hindi to nakon alam pero basi makabasa kong iban nga hindi amo ... oh di man ko gusto sinang love story puro.” [I don't read it because I have no idea or either I can read something I should not read ... I don't really like reading love story always.] (pre-intervention interview: participant 14—lines 231-232, 240)

Some of the learners did not have reading materials, which hindered their opportunity to practice their silent reading comprehension skills in English:

“Oo wala kami libro sa amon balay.” [Yes, we don't have books in our house.] (pre-intervention interview: respondent 14—line 217; participant 20—line 212)

Learners with limited access to suitable reading materials often face challenges in effectively utilizing the resources at their disposal (Haynes, 2013). Even when materials are accessible, learners may struggle due to unfamiliar vocabulary, complex structures, or cultural references (Aquino & De Vera, 2018). Addressing this requires access to diverse, culturally relevant, and appropriately leveled materials to support comprehension skill development.

Overall, there were six themes that explained the factors that caused frustration in silent reading comprehension skills in English of grade IV learners. These themes are

- limited vocabulary in English,
- low motivation in reading,
- poor reading habit,
- lack of family support,
- environmental distractions in reading, and
- limited access to reading materials.

This was supported by studies stating that several factors contribute to the poor silent reading comprehension skills in English of the frustration readers such the lack of vocabulary, lack of learning support and reading motivation (Nanda & Azmy, 2020). Guthrie and Davis (2003), as cited by Sanford (2015) also supported the analysis as they stated that issues in reading comprehension can also arise due to the learners losing interest and disengaging from reading. It is also undeniable that it can be included in the reasons that affect the reading comprehension skills of the learners include their own lack of interest towards written texts.

**Table 4** presents the level of silent reading comprehension skills in English of grade IV learners after the iRead333 program was applied. Results show that there 24 pupils (52.18%) were at the independent level, 16 pupils (34.78%) at the instructional level, six pupils (13.14%) at the frustration level of silent reading comprehension skills in English after the implementation of iRead333. Overall, the mean score of the learners was 22.96 (76.53%), described as instructional. This implies that the learners had an average level of silent reading comprehension skills in English after applying the iRead333 intervention. The post-

assessment results from the ID highlighted a significant improvement in the silent reading comprehension skills of the 46 fourth-grade students following the iRead333 reading intervention. The data revealed that the majority of questions were now classified as very easy or easy, indicating a high level of comprehension. For instance, many literal questions, such as items 1, 2, 3, 4, 5, 15, 18, 19, 23, and 24, have an ID above 0.80, categorizing them as very easy. Similarly, inferential questions (items 9, 10, 11, 20, 25, 26, 27, and 28) and critical questions (items 13, 21, 22, 29, and 30) also predominantly fell into the easy or very easy range, with ID values between 0.63 and 0.93. Only two questions remain in the difficult range: one literal question (item 14, ID = 0.26) and one critical question (item 12, ID = 0.33). This marked a considerable shift from the pre-assessment, where a significant number of items across all categories were rated as difficult or very difficult. The overall high performance in the post-assessment suggests that the iRead333 intervention effectively enhanced the students' reading comprehension abilities, particularly in handling literal, inferential, and critical reading tasks with greater ease.

The rise in post-test scores was consistent with learners' interview responses. For example, learners highlighted that the inclusion of

vocabulary boxes and picture-word matching strategies enabled them to understand unfamiliar terms more effectively, aligning with their improved literal comprehension scores. Similarly, localized and relatable stories motivated learners and supported gains in inferential and critical comprehension. These qualitative findings reinforced the quantitative results, showing not only that iRead333 improved reading comprehension, but also why the intervention was effective.

In connection, Hasan and Ahmad (2019) and Jimenez (2020) supported that conducting a reading intervention can increase the level of reading comprehension among pupils. Also, the study of Nabor and Ortega-Dela Cruz (2022) with the same notion, after using the reading intervention–project 555, the inspired idea of iRead333, the pupils' level of reading comprehension has reached independent and instructional, and only one belonged to the lowest level, i.e., capacity. To be specific, an instructional level is the level at which the pupil can profit from instruction, accurately decoding at least 90% of the words and comprehends at least 60% of the material. Independence is the highest level at which a pupil can read independently and with ease, without the help or guidance of the teacher. It means that pupils accurately decode at least 95% of the words and comprehend 90% of the material.

**Table 5.** Features of iRead33 that improve the silent reading comprehension skills of the learners in English

Utterances	Code	Construct	Theme
"Opo. Kay ara didto ang word sa giano, sa may box. Tungod gipangitaan na siya meaning nakabalo na ko." [Yes. Because the words in the box were defined, I already know the meaning of it (when read again).]	Learner understands the unfamiliar words because the meaning is inside the box	Learner has guided definition of works in unlocking vocabulary	Guided strategies in unlocking of vocabulary
"Nalingaw ko tung nabunutan ko ang ano (word) kay kabalo ko sa ibig sabihin." [I enjoy when I got the word that I know.]	Learner comprehends the word because they know the meaning of it		
"Oo, tung nagpares-pares kami sang picture kag mga words kanang ano nakaintindi gid ko didto (unlocking of vocabulary)." [Yes, when we matched the pictures and words I really understand the words.]	Learner understands unfamiliar words through picture - to - word matching	Learner is guided with word to picture matching of unlocking vocabulary	
"Opo. Kay maintindihan mo gid kaayo kay may picture nga gina ano (ginapakita)." [Yes, because you can really understand because there are pictures presented.]	Learner now understands the text because the unfamiliar words were described to them		Localization of story text
"Nami kay makita ko di sa Miasong (akon nga ginabasa)." [Its nice because I can see it here in Miasong.]	Learner can relate to the places of the text	Learner can relate to the context of the text	
"Gapanguma man kami teacher, parehas tung sa ano sa ano (story)." [We're farming also, teacher, the same with the story.]	Learner can relate to the way of life given in the text		
"... tapos pareho pa gid kami life para sa tong gihambal mo kaya mas nabal an ko pa gid." [... then we have the same lives like what you said that is why I really did know it (the story meaning).]	Learner can relate to the text becoming the reason it can understand the passage given	Learner can relate to the experiences in the text	Relatable SDGs-themed story texts
"...kay tungkol sa akon sarili kag dali ko lang maintindihan." [... because it's about me that's why I can easily understand.]	Learner understand text easily if related to their own self		
"Makalingaw siya kag kis a makahibi ko sa mga story lalo na kung sad. Nakalern ko lesson didto parehas sa tong keep the environment clean." [It is enjoyable and sometimes I get teary – eyed especially if it is sad. I also learned a lesson like 'keep the environment clean.]	Learner is touched by the relatable heartfelt texts	Learner find enjoyment in the texts they read	
"...nalingaw ko kay nakafeel ko sang sari nga mga ano (emotion) samtang ginapabasa ko ang mga story" [I felt different emotion while I/m reading the stories]	Learner feels different emotion when reading		Exposure to multimodal reading materials
"Opo. Makalingaw siya kag makabulig gid. May natutunan sad ko about sa story. Mga lessons didto. Sa pag- eskwela nga lesson amo na mag eskwela daw tarong." [Yes. It is very fun and can really help me. I also learned lesson from the story. For example, I need to study well in school.]	Learner learns life lesson about studying well	Learner was inspired by the content of the texts	
"Nalern ko na mag eskwela tarong kay indi ko gusto nga manguma na lang pirmi kay budlay." [I learn in the story that I need to study well because I don't like to farm always because its hard.]	Learner learned from the text that they would want to improve their socioeconomic status.		
"Opo, napakita sa akon na pwede gali lain ang gamiton pagbasa." [Yes, it showed me that there are different materials I can use to read.]	Learner learns from different reading materials	Learner were shown that they can use variety of reading materials	Exposure to multimodal reading materials
"...na realize ko nga pwede gali mag gamit sang cell phone kung mag basa kag nang papel pod." [... I realized that it is possible to read in cell phone and in paper, too.]	Learner learned to read using gadget and paper		
"Mas nami siya nga dalawa akon ginabasahan. Mas nag nami pa gid akon ano sa pagbasa kag pag intindi." [It is nicer because I use two reading materials. My reading experience became more enjoyable and it helps me in my comprehension.]	Learner preferred two reading modes of material to understand easily	Learner shows satisfaction using two reading modes	

Table 5 (Continued).

Utterances	Code	Construct	Theme
"Tapos kay ginabasahan namon sila duha mas nag nami kag mas nanglingaw magbasa kaya maintindihan na namon di na ko mamingawan magbasa." [And then because we read in both materials, I can understand (the story) well and I will not get bored.]	Learner preferred two reading modes of material to enjoy reading		
"Kay makadugang sang grades ko kung makabasa na ko pirmi. Subong kay gabasa na ko sa balay kung wala klase." [Because it can contribute in my grades if I will read always. As of now, I always read in the house if there is no class.]	Learner are encouraged to read consistently to improve their academic performance	Learner is encouraged to read consistently to improve academic performance and for entertainment	Reading habit enhancement techniques
"kasi kay na realize ko nga name gali mag basa sang mga kwento kag mga story." [because I realize that ut s good reading stories.]	Learner is encouraged to read consistently for entertainment		
"Tapos sa balay namon karon gabasa basa na ko kay gibaklan ko ni Mamang." [And then in our house, I am now reading because my mother bought me reading materials.]	Learner is able to build a reading routine with parental support	Learner build a reading routine through parental support and realization	
"Oo. Kay tungod sini kay mas nakarealize ko na kung adlaw adlawon ko basa mas makatuon ko basa kag makaintindi ko tarong sa akon ginabasa. [Yes. It is because of this I realize that if I make reading a habit the more I can improve my skills in reading.]	Learner is able to build reading routine through realizing the benefits of reading		
"Malipay ka kay damo kamo tapos sabay kamo mag answer, indi ka mahuya kag nami siya kay makabalo ka gid mag intindi. Amo lang na." [It was fun because you read with your classmates together, you can't get shy and you can really improve your skills in comprehension. That's all.]	Learner enjoys answering the reading materials with their classmates	Learner enjoyed in answering the activities	
"Hindi ko mahadlok mag-answer kay may kasabay ko." [I'm not afraid to answer because I have company.]	Learner is not afraid in answering reading materials		
"Sa module ning malingaw karang ang mga stories nami tapos ang mga pictures makabulig na mabal an ang stories kag indi siya makalibog. Sa cellphone kay malipay ka tapos sadya. Murag ano dayun excited kay makaanswer ka naman. Tapos pagpindot pindot kay nalingaw ko bisan indi na kaayo siya bag o sa akon nga experience. Nami pa gid kay mabal an mo dayun imo mali kag tama." [In using the module, it is very engaging, the stories bring fun and the pictures help me in understanding the stories and it's not confusing. In using the cell phone, it is engaging and fun. And then, when I do manipulate it, I found it really fun even though it's not new to me. Most of all, it's nice because you can immediately see your right and wrong answers.]	Learner enjoys the interactive features of the reading material	Learner enjoys the interactive feature and interface of the reading material	Engaging reading materials
"Same sa games sa cellphone tapos bagsik ang kulay sa module." [The same from the mobile games and the colors are amazing.]	Learner is captivated by the graphic interface of the reading material		

Table 5 presents the themes on features that improved the silent reading comprehension skills in English of grade IV learners.

**Theme 1. Guided strategies in unlocking of vocabularies:** One of the features found in the interview that improved the silent reading comprehension skills in English of the learners was the guided strategies in unlocking vocabularies. Specifically, the learners have guided definition of words in unlocking vocabularies. This statement can be supported as one learner noted that:

"Opo. Kay ara didto ang word sa giano, sa may box. Tungod gipangitaan na siya meaning nakabalo na ko." [Yes. Because the words in the box were defined, I already know the meaning of it (when read again)] (post-intervention interview participant 2, lines 5, 6)

Furthermore, it was found that the learners were guided with words-to-picture matching of unlocking vocabulary. Respondent 6 from the post interview, 5<sup>th</sup> and 6<sup>th</sup> line stated that:

"Opo. Kay maintindihan mo gid kaayo kay may picture nga gina ano(ginapakita) [Yes, because you can really understand because there are pictures presented] (post-intervention interview participant 6, line 5)

This can be seen in the iRead333 intervention's multimodal modules. The guided strategies in unlocking vocabulary was presented in three different strategies. The first strategy is to meaning unlocking where the learners choose the words from the box and they will try to define it. Second, the picture to word strategy where the learners need

to match the word to the picture. Lastly, the meaning to words strategy which is somehow alike to the first strategy but inverted. These three strategies in unlocking vocabulary helped the learners understand unfamiliar words in a fun and engaging way.

This is supported by Al-Khasawneh (2019) which approved that it is essential to consider the vocabulary knowledge of the readers as it help readers to understand meaning of words and phrases in the text. This shows that different strategies for unlocking of vocabularies helped the learners become more familiar with certain vocabularies, contributing to their high level of performance in comprehending texts in English while reading silently.

**Theme 2. Localization of story text:** One of the effective pedagogical strategies in teaching reading and inculcating comprehension in English is the localization of text. As found, the learners could relate to the context of the text. One learner stated that:

"Nami kay makita ko di sa Miasong (akon nga ginabasa)" [Its nice because I can see it here in Miasong] (post-intervention interview participant 1, lines 27-29)

Also, the learners can relate to the experiences in the text as emphasized by one learner:

"... tapos pareho pa gid kami life para sa tong gihambal mo kaya mas nabal an ko pa gid." [... then we have the same lives like what you said that is why I really did know it (the story meaning)] (post-intervention interview participant 4, lines 29-30)

This is aligned to the second '3' of the iRead333 (3 weeks/days, 3 texts, and 3 questions). The researchers constructed a compilation of self-made, adapted, and cited texts, which are fully validated, to include the three texts that the learners will read every intervention session. The researchers made sure to localize the texts based on the learners' context, age, and interest for them to comprehend them easily.

Localization of texts fosters a more all-around grasp of the materials and content. This induces more development of cognitive and analytical skills that are very essential in improving the comprehension skills of the learners. With that being said, by embedding narratives within relevant and relatable contexts, readers are presented with a richer and more immersive reading experience, and they are provided with critical cues and connections that facilitate a deeper understanding of the text (Shanahan, 2020).

**Theme 3. Relatable SDGs-themed story texts:** One feature of the iRead333 program is including the SDGs in the texts for the intervention to promote sustainability and to integrate sustainable actions to the learners at a young age. One construct revealed that the learner found enjoyment in the texts they read:

"Makalingaw siya kag kis a makahibi ko sa mga story lalo na kung sad. Nakalarn ko lesson didto parehas sa tong keep the environment clean." [It is enjoyable and sometimes I get teary-eyed especially if it is sad. I also learned a lesson like 'keep the environment clean'] (post-intervention interview participant 2, lines 34-35)

Another learner was inspired by the content of the texts:

"Opo. Makalingaw siya kag makabulig gid. May natutunan sad ko about sa story. Mga lessons didto. Sa pag- eskwela nga lesson amo na mag eskwela daw tarong." [Yes. It is very fun and can really help me. I also learned lesson from the story. For example, I need to study well in school.] (post-intervention interview participant t 6, lines 21-22)

This is aligned with the second '3' of the iRead333 intervention. The SDG-themed story texts were made as a theme per module itself thus the particular story texts per session were focused on it. Moreover, the designs, color schemes, and graphics were also derived from the particular SDG to make the materials uniform. By including these globally recognized goals in the theme of the texts and the design of the material itself, the learners could be engaged on multiple levels, promoting not only the goal of improving their comprehension skills but also a deeper understanding of critical, social, and environmental issues (Bandola-Gill et al., 2022). And so, integrating SDGs into reading contents offers an immersive learning experience, making concepts become more relatable, memorable, and connected to real world.

**Theme 4. Exposure to multimodal reading materials:** One particular theme found in the interview was the exposure to multimodal reading materials. The learners were shown that they can use variety of reading materials. One of the learners stated that:

"Opo, napakita sa akon na pwede gali lain lain ang gamiton pagbasa." [Yes, it showed me that there are different materials I can use to read] (post-intervention interview participant 2, line 41)

Also, the learners showed satisfaction using two reading modes

"... na realize ko nga pwede gali mag gamit sang cell phone kung mag basa kag nang papel pod" [... I realized that it is possible to read in cell phone and in paper, too] (post-intervention interview participant 26, lines 217-218)

This particular feature was applied to the two material used in the intervention, the printed module and electronic book. The printed materials were used to read the guided and individual texts, while the electronic book was used to assessed the learners' progress throughout the intervention. Using these two modes of materials proved that learners are interested in using different materials for them to read. Through this, the learners were able to discover that they can read using different modality. This presents that through exposing learners to different reading materials that will pique their interest, they can be more willing to try and engage in it. Previous studies by Torgesen et al. (1997) and Fálth et al. (2023) have shown that having a combination of two or more modalities increases the interest and attention of the learners and the usage of multimodal reading approach has shown advantages to improving frustration readers since it promotes the theory of dual coding. Providing ample materials gives the learners an opportunity to improve their vocabulary and comprehension. With consistent practice and usage of the materials that aims to guide them to understand what they read, can make a development in improving the silent reading comprehension skills of the learners.

**Theme 5. Reading habit enhancement techniques:** Another theme that was found after the analysis of the interview for the features of intervention is the enhanced reading habit of the learners. Providentially, a construct exhibited that the learners were encouraged to read consistently to improve academic performance and for entertainment. One of the learners stated that:

"Kay makadugang sang grades ko kung makabasa na ko pirmi. Subong kay gabasa na ko sa balay kung wala klase." [Because it can contribute in my grades if I will read always. As of now, I always read in the house if there is no class.] (post-intervention interview participant 3, lines 84-85)

It was also analyzed in the construct that the learners built a reading routine through parental support and realization:

"Oo. Kay tungod sini kay mas nakarealize ko na kung adlaw adlawon ko basa mas makatuon ko basa kag makaintindi ko tarong sa akon ginabasa. [Yes. It is because of this I realize that if I make reading a habit the more I can improve my skills in reading.] (post-intervention interview participant 10, lines 90-93)

These statements prove that the intervention has inculcated the essence of practicing reading for them to build a habit out of it. The first '3' in iRead333 was focused more on the number of weeks/ days that the intervention will last. Through the consistency of reading within the duration of the intervention (every 3 days in 3 weeks) the learners developed a fondness for reading and made realizations that they can achieve great results if they can read and comprehend texts better.

This can be supported by a study conducted at Van Lang University by Pham (2021) which indicates that 53.9% of the factors of reading habit contribute to reading comprehension. If the learners can be more consistent in developing this habit in reading, their skills to understand more complex passages will become better than what they are before the intervention was applied.

**Theme 6. Active engagement in reading materials:** One theme that was also found in the features of iRead333 intervention is the active engagement in reading materials. It was discovered that the learners enjoyed answering the activities of the intervention. One stated:

"Malipay ka kay damo kamo tapos sabay kamo mag answer, indi ka mahuya kag nami siya kay makabalo ka gid mag intindi. Amo lang na." [It was fun because you read with your classmates

together, you can't get shy and you can really improve your skills in comprehension. That's all.] (post-intervention interview participant 14, lines 107-108)

Thus, it was also presented that the learners enjoyed the interactive feature and interface of the reading material:

"Sa module ning malingaw karang ang mga stories nami tapos ang mga pictures makabulig na mabal an ang stories kag indi siya makalibog. Sa cellphone kay malipay ka tapos sadya. Murag ano dayun excited kay makaanswer ka naman. Tapos pagpindot pindot kay nalingaw ko bisan indi na kaayo siya bag o sa akon nga experience. Nami pa gid kay mabal an mo dayun imo mali kag tama." [In using the module, it is very engaging, the stories bring fun and the pictures help me in understanding the stories and it's not confusing. In using the cell phone, it is engaging and fun. And then, when I do manipulate it, I found it really fun even though its not new to me. Most of all, it's nice because you can immediately see your right and wrong answers.] (post-intervention interview participant 14, lines 74-78)

This features can be bound to the last '3' of the iRead333 intervention. Having three questions only per texts made them engage more in the material because they were not bombarded with many questions. Moreover, even though there are only question, the learners' lower-order thinking skills and higher-order thinking skills were also practiced by curating questions in the range of literal, inferential, and critical. Moreover, their active engagement to the material was also contributed through the help of physical features of the materials and the engaging activities and story texts.

Through this, it can be concluded that engagement must be highlighted especially when dealing with young learners to catch their attention for them to learn thoroughly what they need to learn and what they need to practice. As Fredricks et al. (2021), he stated that engagement encompasses cognitive, emotional, and behavioral aspects. If these three domains were managed in equilibrium, especially when doing silent reading exercises, positive results in improving silent reading comprehension in English can be seen.

Overall, there were six themes that explained the features that contribute to the improvement of the silent reading comprehension skills in English of grade IV learner. These features are

- (a) guided strategies in unlocking vocabulary,
- (b) localization of story text,
- (c) relatable SDGs-themed story texts,
- (d) exposure to multimodal reading materials,
- (e) enhanced reading habit, and
- (f) engaging reading materials.

These features, when put together to form the iRead333 intervention, show that through three weeks and three days each of those week, three localized and SDG-themed texts, and three lower-and higher-order thinking skills question, the learners comprehension while reading silently can be improved. With that being observed, it was seen that the features of the iRead333 intervention have contributed to the improvement of the grade IV learners' silent reading comprehension skills in English.

This is supported by Brooks et al. (2021), who explained that language and vocabulary skills are needed for the improvement of reading comprehension of young learners. For localization of the story text, Shanahan (2020) stated that by embedding narratives within relevant and relatable contexts, readers are presented with a richer and more immersive reading experience, and they are provided with critical

**Table 6.** Significant difference of silent reading comprehension skills of the learners in English before and after the implementation of iRead333 intervention

Test	M	SD	t-computed	p	Interpretation
Pre-test	13.57	3.94	14.33	0.000	Significant
Post-test	22.96	4.08			

cues and connections that facilitate a deeper understanding of the text. Furthermore, integration of SDGs in stories also can help them understand texts by involving worthwhile lessons as supported by Jensen (2023).

In addition, adequate practice or exposure to reading materials and comprehension tasks may improve readers from developing the necessary skills and strategies for effective comprehension (Elleman & Oslund, 2019; Hiebert & Daniel, 2019). It is also supported by Falth et al. (2023) that having a combination of two or more modalities increases the interest and attention of the learners and the usage of multimodal reading approach has shown advantages to improving frustration readers since it promotes the theory of dual coding. Fredricks et al. (2021) highlight that engagement encompasses cognitive, emotional, and behavioral aspects, leading to students' investment in learning activities and tasks, thus, this can also contribute to the formation of the learners reading habit.

**Table 6** presents the paired-sample t-test results on the level of silent reading comprehension skills of the pupils.

Results show that there was a significant difference between the means of the pre-test and the post-test scores in the level of silent reading comprehension skills. This was supported by a significant improvement from the pre-test ( $M = 13.57$ ,  $SD = 3.94$ ) to the post-test ( $M = 22.96$ ,  $SD = 4.08$ ),  $t(45) = 14.33$ ,  $p < .001$ , indicating that iRead333 reading intervention is significantly effective in improving the level of silent reading comprehension skills in English of the learners.

Furthermore, there was a significant improvement in performance across all three types of questions from the pre-assessment to the post-assessment. Before the intervention, literal questions displayed a range of difficulties, with many items categorized as difficult or moderately difficult. For example, items 3, 7, 14, 17, 18, and 19 had ID values between 0.22 and 0.33, indicating significant challenges for the students. In the post-intervention, these same questions showed a substantial improvement. Item 3 increased to  $ID = 0.80$ , item 7 to  $ID = 0.65$ , item 14 remained low at  $ID = 0.26$ , item 17 to  $ID = 0.59$ , item 18 to  $ID = 0.80$ , and item 19 to  $ID = 0.85$ . This shift from a range of 0.22-0.33 to 0.59-0.85 for most items signified a clear enhancement in comprehension skills for literal questions.

Initially, inferential questions were among the most challenging, with items such as 9 and 20 showing ID values of 0.20 and 0.24, respectively. Post-intervention, the improvement was notable: item 9 increased to  $ID = 0.63$ , and item 20 to  $ID = 0.65$ . Other inferential items followed a similar pattern, with significant improvements across the board, demonstrating that students have become better at making inferences, likely due to the targeted intervention strategies of iRead333.

Critical questions, which require higher-order thinking, initially posed significant difficulty, with items like 12 and 13 having ID values of 0.30 and 0.24, respectively. Post-intervention, item 12 improved to  $ID = 0.33$ , and item 13 to  $ID = 0.63$ . Additionally, items 21, 22, 29, and 30, which were moderately difficult or difficult in the pre-assessment, shifted to much easier levels ( $ID$  values of 0.85, 0.76, 0.67, and 0.65, respectively). This marked improvement underscores the effectiveness of the iRead333 intervention in enhancing critical reading skills.

**Table 7.** Pattern of relationship between the identified factors and features

Factors that contribute to the frustration of the silent reading comprehension skills in English of learners	Features that contribute to the improvement of the silent reading comprehension skills in English of learners
<b>Theme 1.</b> Limited vocabulary in English	<b>Theme 1.</b> Guided strategies in unlocking vocabulary <b>Theme 2.</b> Localization of story text
<b>Theme 2.</b> Low motivation in reading	<b>Theme 2.</b> Localization of story text <b>Theme 3.</b> Relatable SDGs-themed story texts <b>Theme 4.</b> Exposure to multimodal reading materials
<b>Theme 3.</b> Poor reading habit	<b>Theme 5.</b> Reading habit enhancement techniques
<b>Theme 4.</b> Limited access to reading materials	<b>Theme 2.</b> Localization of story text <b>Theme 6.</b> Engaging reading materials
<b>Theme 5.</b> Lack of family support	
<b>Theme 6.</b> Environmental distractions in reading	

Generally, the substantial increase in the ID for literal, inferential, and critical questions post-intervention indicates a significant improvement in the students' silent reading comprehension skills. The targeted approach of the iRead333 reading intervention appears to have successfully addressed the areas where students previously struggled, resulting in higher proficiency and confidence in handling various types of reading comprehension tasks. Thus, a study conducted by Therrien (2004) yielded comparable findings, demonstrating a shift from low test scores to heightened reading comprehension among participants engaged in a reading program. However, conflicting evidence arose from studies such as those by Torgesen et al. (1997), which suggested that reading interventions may merely sustain the level of reading failure in learners. Contrary to this viewpoint, a number of researchers (Mills & Unsworth, 2017; Stewart, 2012; Synder, 2016) challenged this notion, advocating instead for the significant success achievable through reading intervention programs, particularly when incorporating unique features conducive to comprehensive reading. In alignment with this perspective, Armbruster et al. (2001) asserted the efficacy of repetitive reading strategies, or what they term remedial reading sessions as reading intervention, as the foremost approach to enhancing learners' reading comprehension skills.

Beyond these empirical findings, the effectiveness of iRead333 may also be explained through established theories of reading instruction. The three sessions reading reflects fluency-based approaches that emphasize short, paced practice for developing automaticity (Rasinski, 2012). The inclusion of three texts per session aligns with extensive reading principles, providing learners with varied exposure and broader opportunities to apply strategies (Demiröz, 2016). Likewise, the three-question sequence, progressing from literal to inferential to critical, reflects Bloom's taxonomy and scaffolds comprehension toward higher-order thinking (Anderson & Krathwohl, 2001; Bloom, 1956). Finally, the multimodal integration of print and digital resources is consistent with dual coding theory (Paivio, 1986), which strengthens comprehension by engaging both verbal and visual processing. These theoretical foundations offer a stronger academic rationale for the design of iRead333 and help explain the significant improvements observed in learners' silent reading comprehension.

**Table 7** presents the patterns of causation between the factors in the results and features of the iRead333 intervention.

**Pattern of relationship 1. Limited vocabulary in English and guided strategies in unlocking of vocabulary; and localization of story text:** The first emerging pattern of relationship is found for factor *Theme 1. Limited vocabulary in English* and features *theme 1 and theme 2. Guided strategies in unlocking vocabulary and; localization of story text*. It was previously noted that the limited vocabulary in English of the learners affected their silent reading comprehension skills in English. Such a cause appeared to be addressed by guided strategies in the unlocking of vocabulary and localization of story text, which are

two of the features of the intervention. These two features are rooted in second "three" or the "three texts," of iRead333 intervention.

Zhang (2022) supported this idea, stating that vocabulary instruction is essential for the development of vocabulary knowledge. Also, vocabulary instructions in context to the learners' level of vocabulary is more effective than indirect vocabulary instruction in achieving successful silent reading comprehension (Boryga, 2022).

**Pattern of relationship 2. Low motivation in reading and localization of story text; relatable SDGs-themed story texts; and exposure to multimodal reading materials:** The second emerging pattern of relationship is established for factor *Theme 2. Low motivation in reading* and features *themes 2, 3, and 4. Localization of story text, relatable SDGs-themed story texts, and exposure to multimodal reading materials*. As previously recorded, the lack of reading motivation hinders the learners from practicing their silent reading comprehension skills. This factor is somehow addressed by the localization of story texts and relatable sustainable development-themed story texts which bring lessons to the learners that they can apply in real life, thus motivated them to read more. Moreover, it is also apparently addressed by the exposure to multimodal reading materials, providing learners with a variety of materials they can use for reading to uplift their motivation. The features that were mentioned are under the three texts and three weeks/days of the intervention, respectively.

This pattern of causation can be supported by Rafael and Tamban (2022), who presented that localized reading materials help pupils comprehend words and sounds that boost their confidence in reading. Also, incorporating SDG in classroom instructions creates a meaningful connection between learners and texts they are reading (Learning, 2019). Moreover, this was also apparent to Varaporn and Sitthitikul (2019), expressing that the multimodal usage of materials increased intrinsic motivation and promoted metacognition. The learners expressed appreciation over the alternative ways to respond to reading and asserted that the multimodal tasks could solve their comprehension problems.

**Pattern of relationship 3. Poor reading habit and reading habit enhancement techniques:** The third pattern of relationship is noted for factor *Theme 3. Poor reading habit* and feature *Theme 5. Enhanced reading habit*. One of the causes of the learners' frustration is their poor reading habit. This factor was subsequently addressed by the reading habit enhancement techniques that the learners have developed after the three weeks/days of the iRead333 intervention.

This can be backed up by Narang (2023), stating that short reading sessions can gradually help in building the reading habit of the learners. Crokes (2024) also suggested that allocating dedicated time for reading can contribute to the enhancement of the learner's reading habit, which is a feature of iRead333. He also added that embracing different reading materials and helping the learners cultivate and establish a routine could apparently address the low reading habit of learners.

#### **Pattern of relationship 4. Limited access to reading materials and localization of story text; and engaging reading materials:**

Lastly, an emerging pattern of relationship is realized for factor *Theme 4. Limited access to reading materials and features Theme 2 and theme 6. Localization of story text and engaging reading materials*. A factor of limited access reading materials was found as a cause that contributed to the low level of silent reading comprehension skills of the learners. This cause, by some means, is addressed by the localization of story texts and engaging reading materials which was crafted to fit the age, level of comprehension, and interests of the learners. The two features are a product of the 'three texts' of the intervention. Moreover, the engaging reading materials can relate to the three questions part of the intervention, which challenge and interest learners as they comprehend and respond about what is asked.

The above statement can be supported by Labindao (2022) stating that the use of localized made materials is a good practice to meet the local need of a reader. Localization of texts addressed the needs of the students, fitting the curriculum standards of reading. Furthermore, when reading engagement is high, the students perform well in reading comprehension (Alghonaim, 2020). This represents the students' motivation to read and engage in reading activities to improve their understanding of texts as cited by Alghonaim (2020) from Protacio (2017).

Overall, there were four patterns of relationship found between the factors and features of the study. These are

- (a) factor *Theme 1. Limited vocabulary in English* and features *Theme 1 and theme 2. Guided strategies in unlocking of vocabulary and localization of story text*,
- (b) factor *Theme 2. Low motivation in reading* and features *Themes 2, 3, and 4. Localization of story text, relatable SDGs-themed story texts, and exposure to multimodal reading materials*,
- (c) factor *Theme 3. Poor reading habit* and feature *Theme 5. Reading habit enhancement techniques*, and
- (d) factor *Theme 4. Limited access reading materials* and features *Theme 2 and theme 6. Localization of story text and engaging reading materials*.

This implies that there are certain patterns of relationship found between the identified factors that contribute to the frustration level of silent reading comprehension skills of the learners and features of iRead333 that improve such skill.

## **DISCUSSION**

### **Summary**

The study aimed to determine the effectiveness of the iRead333 program to improve the silent reading comprehension skills in English of grade IV frustration readers in Miasong Elementary School.

Specifically, this study sought to answer the following questions:

1. What is the level of silent reading comprehension skills in English of the learners prior to the implementation of the iRead333?
2. What are the underlying factors that contribute to the low level of silent reading comprehension skills in English of the learners prior to the implementation of the iRead333?
3. What is the level of silent reading comprehension skills in English of the learners after the implementation of the iRead333?
4. What are the primary features of iRead333 that positively improved the silent reading comprehension skills in English of learners after the implementation of the iRead333?

5. Is there a significant difference in the level of silent reading comprehension skills in English of learners before and after the implementation of the iRead333?
6. What patterns of relationship between the identified factors and features can explain the significant difference in silent reading comprehension skills in English of the learners?

This study involved forty-six (46) grade IV frustrated learners of Miasong Elementary School, Tupi 2 District, Miasong, Tupi, South Cotabato. These learners were officially enrolled in the school year 2023-2024. This study employed an embedded experimental mixed-method research design. The data-gathering procedure adhered to ethical standards, seeking permission from the school and ensuring informed consent from participants and their guardians. Pre-tests were conducted before implementing the iRead333 program, followed by a three-week intervention aligned with previous successful studies. Post-tests and structured interviews were then administered. The collected data underwent statistical analysis using a t-test to analyze the quantitative data and thematic interpretation for evaluation of the qualitative data.

### **Findings**

1. The silent reading comprehension skills in English before the implementation of iRead333 obtained an overall mean score of 13.57, described as "frustration."
2. There are six themes that explain the factors that cause frustration in the silent reading comprehension skills in English of learners: limited vocabulary in English, low motivation in reading, poor reading habit, lack of family support, environmental distractions in reading, limited access to reading materials.
3. The silent reading comprehension skills in English after the implementation of iRead333 is 22.96 (76.53%), described as "instructional."
4. There are six themes that explain the features that contribute to the improvement of the silent reading comprehension skills in English of learners: guided strategies in unlocking of vocabulary, localization of story text, relatable SDGs-themed story texts, exposure to multimodal reading materials, enhanced reading habit, and engaging reading materials.
5. There is a significant difference between the means of the pre-test scores and the post-test scores in the level of silent reading comprehension skills in English, as supported by a computed t-value of 14.33 and a p-value of .000.
6. There are four patterns of causation found between the factors that contribute to the frustration of silent reading comprehension skills in English and features that improve the silent reading comprehension skills in English of the learners:
  - (1) Factor theme 1. Limited vocabulary in English and features theme 1 and theme 2. Guided strategies in unlocking vocabulary and localization of story text,
  - (2) Factor theme 2. Low motivation in reading and features themes 2, 3, and 4. Localization of story text, relatable SDGs-themed story texts, and exposure to multimodal reading materials,
  - (3) Factor theme 3. Poor reading habit and feature theme 5. Enhanced reading habit, and
  - (4) Factor theme 6. Limited access to reading materials and features theme 2 and theme 6. Localization of story text and engaging reading materials.

## CONCLUSION

Based on the findings, the following are the conclusions:

1. The learners have a low level of silent reading comprehensions in English prior to the implementation of iRead333.
2. The factors that affect the silent reading comprehension skills in English of the learners are related to vocabulary, habits, and motivation, access to materials, family support, and distractions.
3. The learners have a moderate level of silent reading comprehension in English after the implementation of iRead333.
4. The features of the iRead333 that improved the English silent reading comprehension skills of the learners involved guided vocabulary strategies, localized texts, and materials.
5. The iRead333 is effective in improving the level of silent reading comprehension skills of learners in English.
6. There are certain patterns of relationship found between the identified factors that contribute to the frustration level of silent reading comprehension skills of the learners and features of iRead333 that improve such skills.

Finally, the integration of quantitative results and qualitative themes demonstrated that iRead333 was effective not only in raising test scores but also in addressing specific barriers such as vocabulary limitations and low motivation, thereby providing a holistic explanation of learners' progress.

### Limitations of the Study

While the results of this study indicate that iRead333 is effective in improving silent reading comprehension, certain limitations should be noted. First, the study was conducted in a single school, which may restrict the generalizability of the findings to other contexts. Second, the sample size was relatively small ( $n = 46$ ), limiting the statistical power and representation of the results. Third, the duration of the intervention was only one month, which may not fully capture the long-term effects of the program. Finally, as an action research design, the study focused on addressing a local classroom concern, and thus the findings should be interpreted within that context. These limitations point to the need for future studies to test the iRead333 intervention across different schools, larger populations, and longer durations to validate and extend the results.

## RECOMMENDATIONS

The following recommendations were made based on the conclusion of the study:

1. School administrators can consider integrating iRead333 as a part of the curriculum for daily classroom reading remediation
2. Teachers can use iRead333 during catch-up Friday activities as an interactive tool that offers engaging reading exercises and activities tailored to individual learner needs, promoting effective silent reading comprehension skills.
3. Parents can use the iRead333 approaches to support reading at home, as these provide structured steps in improving silent reading comprehension of the learners.
4. Other researchers can use iRead333 as reference data for studies with similar research problems. They can also use the iRead333 as their foundation to formulate future interventions for reading.

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## REFERENCES

- Abdulsalam, U. (2022). The culture of reading: The benefits, the role of libraries, and the challenges in the 21<sup>st</sup> century. *Libraries- University of Nebraska-Lincoln*, 1-12. <https://digitalcommons.unl.edu/libphilprac/7453/>
- Abergos, L., Cruz, J., Lasala, J., Prado, S., Tapar, P., Reynales, D. C., & Ocampo, D. (2024). Effectiveness of remedial reading to struggling readers of grade 7 learners. *SHS Web of Conferences*, 182. Article 01004. <https://doi.org/10.1051/shsconf/202418201004>
- Acita, D., Egtob, M., Cabus, S., Luceñara, C., Luceñara, D., & Saro, J. (2022). Challenges, difficulties, and effective enactment of remedial reading programs: A qualitative-phenomenological approach. *Psychology and Education: A Multidisciplinary Journal*, 5(1), 553–564. <https://doi.org/10.5281/zenodo.7325200>
- Alghonaim, A. S. (2020). Impact of related activities on reading comprehension of EFL students. *English Language Teaching*, 13(4), 15–26. <https://doi.org/10.5539/elt.v13n4p15>
- Al-Khasawneh, F. (2019). The impact of vocabulary knowledge on the reading comprehension of Saudi EFL learners. *Journal of Language and Education*, 5(3), 24-34. <https://doi.org/10.17323/jle.2019.8822>
- Allington, R., Stuetzel, H., Shake, M., & Lamarche, S. (2002). What is remedial reading? A descriptive study. *Reading Research and Instruction*, 26(1), 15-30. <https://doi.org/10.1080/19388078609557892>
- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Anjomshoa, L., & Zamanian, M. (2014). The effect of vocabulary knowledge on reading comprehension of Iranian EFL learners in Kerman Azad University. *International Journal on Studies in English Language and Literature*, 2(5), 90-95. <https://www.arcjournals.org/pdfs/ijSELL/v2-i5/13.pdf>

- Aquino, M. G., & De Vera, P. V. (2018). Development of learning material for grade 7 struggling readers. *TESOL International Journal*, 13(1), 23-40. <https://files.eric.ed.gov/fulltext/EJ1247185.pdf>
- Armbruster, B. B., Lehr, F., Osborn, J., O'Rourke, R., Beck, I., Carnine, D., & Simmons, D. (2001). Put reading first. National Institute for Literacy, National Institute of Child Health and Human Development, U.S. Department of Education.
- Aşıkcan, M., & Saban, A. (2020). An action research on improving fluent reading skills of third-grade primary school learners. *Education and Science*, 46(205), 19-47. <https://doi.org/10.15390/EB.2020.9015>
- Attwell, A. (2023). *Encyclopedia Britannica*. Britannica.
- Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. David McKay.
- Boryga, A. (2022, August 25). *Rethinking how we teach reading in elementary school*. Edutopia. <https://www.edutopia.org/article/rethinking-how-we-teach-reading-elementary-school/>
- Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, 9(1), 3-26. <https://doi.org/10.1037/qap0000196>
- Bresó-Grancha, N., Jorques-Infante, M. J., & Moret-Tatay, C. (2022). Reading digital-versus print-easy texts: A study with university students who prefer digital sources. *Psicologia: Reflexão e Crítica*, 35, Article 10. <https://doi.org/10.1186/s41155-022-00212-4>
- Bus, A. G., Takacs, Z. K., & Kegel, C. A. T. (2015). Affordances and limitations of electronic storybooks for young children's emergent literacy. *Developmental Review*, 35, 79-97. <https://doi.org/10.1016/j.dr.2014.12.004>
- Capodiecici, A., Cornoldi, C., Doerr, E., Bertolo, L., & Carretti, B. (2020). The use of new technologies for improving reading comprehension. *Frontiers in Psychology*, 11, Article 751. <https://doi.org/10.3389/fpsyg.2020.00751>
- Castro, Q. A. S. (2025). Frustration readers in senior high school: A case study. *International Journal of Research and Innovation in Social Science*, 8(12), 2395-2409. <https://doi.org/10.47772/IJRIS.2024.8120199>
- Çetinkaya, F. Ç., Ateş, S., & Yıldırım, K. (2019). Effects of interactive book reading activities on improvement of elementary school learners' reading skills. *International Journal of Progressive Education*, 15(3), 180-193. <https://files.eric.ed.gov/fulltext/EJ1219280.pdf>
- Charmaz, K. (2014). *Constructing grounded theory*. SAGE.
- Cisco Systems. (2008). Multimodal learning through media: What the research says. CISCO. [http://www.cisco.com/web/strategy/docs/education/Multimodal\\_Learning\\_Through\\_Media.pdf](http://www.cisco.com/web/strategy/docs/education/Multimodal_Learning_Through_Media.pdf)
- Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. SAGE.
- Crokes. (2024, April 1). *How to overcome poor reading habits: A guide to cultivating a lifelong reading habit*. Crokes. <https://www.crokes.com/blog/how-to-overcome-poor-reading-habits-a-guide-to-cultivating-a-lifelong-reading-habit/>
- Cromley, J. G., & Kunze, A. J. (2020). Metacognition in education: Translational research. *Translational Issues in Psychological Science*, 6(1), 15-20. <https://doi.org/10.1037/tps0000218>
- Cruz, R. O. D. (2022). Project 555: A silent reading intervention towards an improved reading comprehension in English. *Journal of English Education*, 7(2), 36-50. <https://usnsj.id/index.php/JEE/article/view/1805>
- Cuevas, J. (2015). Is learning styles-based instruction effective? A comprehensive analysis of recent research on learning styles. *Theory and Research in Education*, 13(3), 308-333. <https://doi.org/10.1177/1477878515606621>
- Danielsson, K., & Selander, S. (2016). Reading multimodal texts for learning: A model for cultivating multimodal literacy. *Designs for Learning*, 8(1), 25-36. <https://doi.org/10.16993/dfl.72>
- de la Fuente, J. K. (2022, August 25). *Reading performance declining in the Philippines*. TeacherPH. <https://www.teacherph.com/reading-performance-declining-philippines/>
- Demiroz, E. (2019). Kinesthetic gaming, cognition, and learning: Implications for P-12 education. In *Early childhood development: concepts, methodologies, tools, and applications* (pp. 744-771). IGI Global. <https://doi.org/10.4018/978-1-5225-7507-8.ch036>
- Demiröz, H. (2016). A short course in teaching reading: Practical techniques for building reading power 2nd ed. (2011). *The Reading Matrix: An International Online Journal*, 16(2), 246-248. <https://www.readingmatrix.com/files/15-0d67u66g.pdf>
- Department of Education [DePed] (2020). *Adoption of the basic education learning continuity plan for school year 2020-2021 in the light of the COVID-19 public health emergency*. Department of Education. [https://www.deped.gov.ph/wp-content/uploads/2020/06/DO\\_s2020\\_012.pdf](https://www.deped.gov.ph/wp-content/uploads/2020/06/DO_s2020_012.pdf)
- Elleman, A. M., & Oslund, E. L. (2019). Reading comprehension research: Implications for practice and policy. *Policy Insights from the Behavioral and Brain Sciences*, 6(1), 3-11. <https://doi.org/10.1177/2372732218816339>
- Esplendori, G. F., Kobayashi, R. M., & Püschel, V. A. A. (2022). Multisensory integration approach, cognitive domains, meaningful learning: Reflections for undergraduate nursing education. *Revista da Escola de Enfermagem da USP*, 56, e20210381. <https://doi.org/10.1590/1980-220X-REEUSP-2021-0381>
- Fälth, L., Brkovic, I., Kerestes, G., Svensson, I., Hjelmquist, E., & Tjus, T. (2023). The effects of a multimodal intervention on the reading skills of struggling learners: An exploration across countries. *Reading Psychology*, 44(3), 225-241. <https://doi.org/10.1080/02702711.2022.2141399>
- Gable, T., & Thompson, C. (2011). Electronic readers might be viable education tools. *iPad News Daily*. <https://www.ipadnewsdaily.com/electronic-readers-might-beviable-education-tools-study-shows-1348/>
- Gedik, O., & Akyol, H. (2022). Reading difficulty and development of fluent reading skills: An action research. *International Journal of Progressive Education*, 18(1), 22-41. <https://doi.org/10.29329/ijpe.2022.426.2>
- Gigante, L. T. (2024). Effectiveness of the remedial reading program on pupils' performance. *Psychology and Education: A Multidisciplinary Journal*, 20(3), 307-316. <https://doi.org/10.5281/zenodo.11350117>
- Glaser, S. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine. <https://doi.org/10.1097/00006199-196807000-00014>
- Greathouse, P. A. (2017). Effects of a positive youth development approach to literacy through young adult literature in the secondary remedial reading class: An action research study. *Educational Action Research*, 26(2), 220-238. <https://doi.org/10.1080/09650792.2017.1307127>

- Gu, T. (2017). The effect of vocabulary knowledge on Chinese English learners' reading comprehension. *International Journal of English Linguistics*, 7(4), 46-55. <https://doi.org/10.5539/ijel.v7n4p45>
- Guetterman, T. C., Sakakibara, R. V., Plano Clark, V. L., Luborsky, M., Murray, S. M., Castro, F. G., Creswell, J. W., Deutsch, C., & Gallo, J. J. (2019). Mixed methods grant applications in the health sciences: An analysis of reviewer comments. *PLoS ONE*, 14(11), Article e0225308. <https://doi.org/10.1371/journal.pone.0225308>
- Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 19(1), 59-85. <https://doi.org/10.1080/10573560308203>
- Halamish, V., & Elbaz, E. (2020). Children's reading comprehension and metacomprehension on screen versus on paper. *Computers & Education*, 145, Article 103737. <https://doi.org/10.1016/j.compedu.2019.103737>
- Hale, A. D., Skinner, C. H., Williams, J., Hawkins, R., Neddenriep, C. E., & Dizer, J. (2007). Comparing comprehension following silent and aloud reading across elementary and secondary learners: Implication for curriculum-based measurement. *The Behavior Analyst Today*, 8(1), Article 9. <https://doi.org/10.1037/h0100101>
- Harman, M. (2023, June 25). *Interactive eBook reinvents reading and interactivity*. Kitabo. <https://kitabo.com/interactive-ebooks/>
- Hasan, R., & Ahmad, N. A. (2019). Needs analysis of scaffolding literacy (ScafoLIT) module in helping remedial students mastering reading comprehension skills. *International Journal of Academic Research in Business and Social Sciences*, 9(1), 284-295. <https://doi.org/10.6007/IJARBS/v9-i1/5397>
- Hiebert, E. H., & Daniel, M. (2019). Comprehension and rate during silent reading: Why do some students do poorly? *Reading and Writing: An Interdisciplinary Journal*, 32(7), 1795-1818. <https://doi.org/10.1007/s11145-018-9917-7>
- Idulog, M. V., Gadiano, R., Toledo, E., Hermosada, M., Casaldon, H., Mariposa, M., Geron, C., Dequito, E., Genanda, J., Malipot, M. A., Pentang, J. T., & Bautista, R. (2023). Filipino students' reading abilities: A note on the challenges and potential areas for improvement. *International Journal of Education and Teaching Zone*, 2(2), 233-242. <https://doi.org/10.57092/ijetz.v2i2.128>
- Institute of Education Sciences. (2020). *Review protocol for practice guide: Assisting students struggling with reading: Intervention in grades 4-9 (Version 4.0)*. U.S. Department of Education. <https://bit.ly/4uhyL6v>
- Ishikawa, T., & Newcombe, N. S. (2021). Why spatial is special in education, learning, and everyday activities. *Cognitive Research: Principles and Implications*, 6, Article 20. <https://doi.org/10.1186/s41235-021-00274-5>
- Jabr, F. (2013, April 11). The reading brain in the digital age: The science of paper versus screens. *Scientific American*, 11(5). <https://www.scientificamerican.com/article/reading-paper-screens/>
- Joshi, R. M. (2005). Vocabulary: A critical component of comprehension. *Reading & Writing Quarterly*, 21, 209-219. <https://doi.org/10.1080/10573560590949278>
- Karakoc, D., & Kose, G. (2017). The impact of vocabulary knowledge on reading, writing and proficiency scores of EFL learners. *Journal of Language and Linguistic Studies*, 13(1), 352-378.
- Korat, O. (2010). Reading electronic books as a support for vocabulary, story comprehension and word reading in kindergarten and first grade. *Computers & Education*, 55(1), 24-31. <https://doi.org/10.1016/j.compedu.2009.11.014>
- Korat, O., Tourgeman, M., & Segal-Drori, O. (2021). E-book reading in kindergarten and story comprehension support. *Reading and Writing*. <https://doi.org/10.1007/s11145-021-10175-0>
- Kotobee. (2022, May 5). *What is an interactive ebook? Everything you need to know*. Kotobee Blog. <https://blog.kotobee.com/interactive-ebook/>
- Labindao, J. D. (2022). Localized self learning module in reading. *International Journal of Research Publications*, 102(1), 81-96. <https://doi.org/10.47119/IJRP1001021620223275>
- Law, K. (2023). *Multimodal approaches to reading instruction*. Edutopia. <https://www.edutopia.org/article/reading-instruction-multimodal-elementary/>
- Lawless, C. (2019). *Multimodal learning: Engaging your learner's senses*. LearnUpon. <https://www.learnupon.com/blog/multimodal-learning/>
- Lowrie, T., Logan, T., Harris, D., & Hegarty, M. (2018). The impact of an intervention program on learners' spatial reasoning: Learner engagement through mathematics-enhanced learning activities. *Cognitive Research: Principles and Implications*, 3(1), Article 50. <https://doi.org/10.1186/s41235-018-0147-y>
- Mangen, A., & Kuiken, F. (2014). Lost in an iPad: Narrative engagement on paper and tablet. *Scientific Study of Literature*, 4(2), 150-177. <https://doi.org/10.1075/ssol.4.2.02man>
- Marinelli, H. Á., Berlinski, S., & Busso, M. (2019). Remedial education: Evidence from a sequence of experiments in Colombia. *Journal of Human Resources*, 59(1), 141-174. <https://doi.org/10.3368/jhr.0320-10801r2>
- Marmonejo, I. M., & Rufino, G. (2019). Effectiveness of localized Hiligaynon stories using digital and printed media on the reading comprehension in English of the learners. *Journal of English as A Foreign Language Teaching and Research*, 2(2), 67-77. [https://www.researchgate.net/publication/364072657\\_Effectiveness\\_of\\_Localized\\_English\\_Reading\\_Materials\\_in\\_Enhancing\\_the\\_Reading\\_Skills\\_of\\_the\\_Grade\\_two\\_Pupils](https://www.researchgate.net/publication/364072657_Effectiveness_of_Localized_English_Reading_Materials_in_Enhancing_the_Reading_Skills_of_the_Grade_two_Pupils)
- Matthew, K. (1997). A comparison of the influence of interactive CD-ROM storybooks and traditional print storybooks on reading comprehension. *Journal of Research on Computing in Education*, 29(3), 263-275. <https://doi.org/10.1080/08886504.1997.10782198>
- Mebarki, Z. (2011). Vocabulary knowledge and reading comprehension. *International Journal of Arabic-English Studies*, 12, 131-154. <https://doi.org/10.33806/ijaes2000.12.1.9>
- Mede, E., & Gir Korkmaz, H. (2017). İngilizce ders kitabındaki okuma materyallerinin etkililiğinin araştırılması: Türkiye'den bir örnek [Investigating the effectiveness of reading materials in English textbooks: An example from Turkey]. *Muğla Sıtkı Koçman Üniversitesi Eğitim Fakültesi Dergisi*, 4(2), 9-27. <https://doi.org/10.21666/muefd.304280>
- Mills, K. A., & Unsworth, L. (2017). Multimodal literacy. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.232>
- Miñoza, M. V., & Montero, M. A. (2019). Reading comprehension level among intermediate learners. *Science International*, 31(3), 561-568. <https://files.eric.ed.gov/fulltext/ED596833.pdf>

- Mohammed, I., & Amponsah, O. (2018). Predominant factors contributing to low reading abilities of learners at Elsie Lund Basic School in the Tamale Metropolis, Ghana. *African Educational Research Journal*, 6(4), 273-278. <https://doi.org/10.30918/AERJ.64.18.071>
- Morgan, W. P. (1896). A case of congenital word blindness. *BMJ*, 2(1871), 1378-1378. <https://doi.org/10.1136/bmj.2.1871.1378>
- Muhid, A., Amalia, E. R., Hilalayah, H., Budiana, N., & Wajdi, M. B. N. (2020). The effect of metacognitive strategies implementation on learners' reading comprehension achievement. *International Journal of Instruction*, 13(2), 847-862. <https://doi.org/10.29333/iji.2020.13257a>
- Nabor, L., Ortega-Dela Cruz, R. A. (2022). Project 555: A silent reading intervention towards an improved reading comprehension in English. *Journal of English Education*, 7(2), 36-50. <https://bit.ly/4d8SuPp>
- Nanda, D. W., & Azmy, K. (2020). Poor reading comprehension issue in EFL classroom among Indonesian secondary school learners: Scrutinizing the causes, impacts and possible solutions. *Englisia: Journal of Language, Education, and Humanities*, 8(1), 12-24. <https://doi.org/10.22373/ej.v8i1.6771>
- Narang, A. (2023, April 30). *How to get back to reading consistently again*. Harper Bazar. <https://www.harperbazaar.in/culture/story/how-to-get-back-to-reading-consistently-again-565411-2023-04-30>
- National Reading Panel. (2000). Report of the national reading panel: Teaching children to read. *NIH*. <https://www.nichd.nih.gov/publications/pubs/nrp/smallbook>
- Nouri, N., & Zerhouni, B. (2016). The relationship between vocabulary knowledge and reading comprehension among Moroccan EFL learners. *Journal of Humanities and Social Science*, 21(10), 19-26. [https://www.researchgate.net/publication/317265187\\_The\\_relationship\\_between\\_vocabulary\\_knowledge\\_and\\_reading\\_comprehension\\_among\\_Moroccan\\_EFL\\_learners](https://www.researchgate.net/publication/317265187_The_relationship_between_vocabulary_knowledge_and_reading_comprehension_among_Moroccan_EFL_learners)
- Olofsson, J. K., Ekström, I., Lindström, J., Syrjänen, E., Stigsdotter-Neely, A., Nyberg, L., & Larsson, M. (2020). Smell-based memory training: Evidence of olfactory learning and transfer to the visual domain. *Chemical Senses*, 46(7), 593-600. <https://doi.org/10.1093/chemse/bjaa049>
- Paivio, A. (1986). *Mental representations: A dual coding approach*. Oxford University Press.
- Park, J., & Lee, J. (2021). Effects of e-books and printed books on EFL learners' reading comprehension and grammatical knowledge. *English Teaching*, 76(3), 35-61. <https://doi.org/10.15858/engtea.76.3.202109.35>
- PISA. (2019). PISA 2018 results show that reading skills must be improved worldwide. *Study International*. <https://www.studyinternational.com/news/pisa-2018-reading-skills-improve-worldwide/>
- Protacio, M. S. (2017). A case study exploring the reading engagement of middle grades English learners. *RMLE Online*, 40(3), 1-17. <https://doi.org/10.1080/19404476.2017.1280586>
- Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52, 513-536. <https://doi.org/10.1111/1467-9922.00193>
- Rafael, S. D., & Tamban, V. E. (2022). Effectiveness of localized English reading materials in enhancing the reading skills of the grade two learners. *Journal of English as a Foreign Language Teaching and Research*, 2(2), 67-77. <https://doi.org/10.31098/jefltr.v2i2.1126>
- Rasinski, T. V. (2012). Why reading fluency should be hot! *The Reading Teacher*, 65(8), 516-522. <https://doi.org/10.1002/TRTR.01077>
- Redhair. (2017). *Factors influencing silent reading comprehension*. Learn with Emily. <https://learnwithemily.com/reading/silent-reading-comprehension/>
- Reutzel, D. R., & Juth, S. (2014). Supporting the development of silent reading fluency: An evidence-based framework for the intermediate grades (3-6). *International Electronic Journal of Elementary Education*, 7(1), 27-46. <https://files.eric.ed.gov/fulltext/EJ1053594.pdf>
- Reutzel, D. R., Jones, C. D., & Newman, T. L. (2010). Scaffolded silent reading (ScSR): Improving the conditions of silent reading practice in classrooms. In E. H. Hiebert, & D. R. Reutzel (Eds.), *Revisiting silent reading: New directions for teachers and researchers* (pp. 129-150). International Reading Association. <https://doi.org/10.1598/0833>
- Ricketts, J., Nation, K., & Bishop, D. (2007). Vocabulary is important for some, but not all reading skills. *Scientific Studies of Reading*, 11(3), 235-257. <https://doi.org/10.1080/10888430701344306>
- Riffenburgh, R. H. (2012). Significance level  $\alpha$ . *ScienceDirect*. <https://www.sciencedirect.com/topics/mathematics/significance-level-alpha>
- Robb, M. (2019). Potential advantages and disadvantages of digital textbooks. *Nurse Author & Editor*, 29(4), 1-9. <https://doi.org/10.1111/j.1750-4910.2019.tb00054.x>
- Rodrigues, B., Ribeiro, I., & Cadime, I. (2022). Reading, linguistic, and metacognitive skills: Are they reciprocally related past the first school years? *Reading and Writing*, 36, 2251-2273. <https://doi.org/10.1007/s11145-022-10333-y>
- Sahana. (2021). *Top 12 advantages and disadvantages of e-books- tech quintal*. Tech Quintal. <https://www.techquintal.com/advantages-and-disadvantages-of-e-books/>
- Sanders, J. (2020). *The use of silent reading in the classroom* [Master's thesis, California State University San Marcos].
- Sanford, K. L. (2015). *Factors that affect the reading comprehension of secondary learners with disabilities* [PhD thesis, University of San Francisco].
- Scott T. R. (2011). Learning through the taste system. *Frontiers in systems Neuroscience*, 5, Article 87. <https://doi.org/10.3389/fnsys.2011.00087>
- Shabiralyani, G., Hasan, K. S., Hamad, N., & Iqbal, N. (2015). Impact of visual aids in enhancing the learning process case research: District Dera Ghazi Khan. *Journal of Education and Practice*, 6(19), 226-233. <https://files.eric.ed.gov/fulltext/EJ1079541.pdf>
- Siegle, D. (2015). Research ethics and informed consent. *Educational Research Basics by Del Siegle*. <https://researchbasics.education.uconn.edu/ethics-and-informed-consent>
- Siwagan, A. R., & Ubayubay, R. M. (2025). Issues and challenges in teaching remedial reading among teachers in select districts of Misamis Oriental. *International Journal of Multidisciplinary Research and Analysis*, 8(11), 6541-6565. <https://doi.org/10.47191/ijmra/v8-i11-73>

- Smith, R., Snow, P., Serry, T., & Hammond, L. (2021). The role of background knowledge in reading comprehension: A critical review. *Reading Psychology, 42*(3), 214-240. <https://doi.org/10.1080/02702711.2021.1888348>
- Squire, L. R. (2012). Spatial learning. In S. M. Seel (Ed.), *Encyclopedia of the sciences of learning* (pp. 3165-3167). <https://doi.org/10.1007/978-1-4419-1428-6>
- Stewart, S. M. (2012). *Reading in a technological world: Comparing the iPad to print* [Master's thesis, Bowling Green State University]. [https://etd.ohiolink.edu/apexprod/rws\\_etd/send\\_file/send?accession=bgsu1335287048&disposition=inline](https://etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=bgsu1335287048&disposition=inline)
- Støle, H., Mangen, A., & Schwippert, K. (2020). Assessing children's reading comprehension on paper and screen: A mode-effect study. *Computers & Education, 151*, Article 103861. <https://doi.org/10.1016/j.compedu.2020.103861>
- Suggate, S. P., Lenhard, W., Neudecker, E., & Schneider, W. (2013). Incidental vocabulary acquisition from stories: Second and fourth graders learn more from listening than reading. *First Language, 33*(6), 551-571. <https://doi.org/10.1177/0142723713503144>
- Suhadi, S., Soegiyanto, S., Rahman, H. A., & Sulaiman, S. (2020). Evaluation of the bodily-kinesthetic intelligence model in physical education teaching in Indonesia primary school. *Jurnal Cakrawala Pendidikan, 39*(2), 471-479. <https://doi.org/10.21831/cp.v39i2.29542>
- Suson, R., Baratbata, C., Anos, W., Ermac, E., Aranas, A. G., Malabago, N., Galamiton, N., & Capuyan, D. (2020). Differentiated instruction for basic reading comprehension in Philippine settings. *Universal Journal of Educational Research, 8*(9), 3814-3824. <https://doi.org/10.13189/ujer.2020.080904>
- Synder, A. (2016). *The effect of using electronic books during sustained silent reading on the reading achievement and motivation of first grade learners*. [Master Thesis, Goucher College]. [https://mdsoar.org/bitstream/handle/11603/3076/SnyderAmanda\\_paper.pdf?sequence=1](https://mdsoar.org/bitstream/handle/11603/3076/SnyderAmanda_paper.pdf?sequence=1)
- Takacs, Z. K., Swart, E. K., & Bus, A. G. (2015). Benefits and pitfalls of multimedia and interactive features in technology-enhanced storybooks: A meta-analysis. *Review of Educational Research, 85*(4), 698-739. <https://doi.org/10.3102/0034654314566989>
- Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading: A meta-analysis. *Remedial and Special Education, 25*(4), 252-261. <https://doi.org/10.1177/07419325040250040801>
- ThoughtCo. (2019, June 19). *Make the most of your tactile learning style*. ThoughtCo. <https://www.thoughtco.com/tactile-learning-style-3212065>
- Tinker, M. A. (2018). Remedial reading for non-readers. *School & Society, 193*(40), 524-526.
- Tomas, M., Villaros, E., & Galman, S. (2021). The perceived challenges in reading of learners: Basis for school reading programs. *Open Journal of Social Sciences, 9*, 107-122. <https://doi.org/10.4236/jss.2021.95009>
- Torgesen, J. K. (2005). Recent discoveries on remedial interventions for children with dyslexia. In M. J. Snowling & C. Hulme (Eds.), *The science of reading: A handbook* (pp. 521-537). Blackwell Publishing. <https://doi.org/10.1002/9780470757642.ch27>
- Torgesen, J. K., Wagner, R. K., Rashotte, C. A., Burgess, S. R., & Hecht, S. A. (1997). Contributions of phonological awareness and rapid automatic naming ability to the growth of word-reading skills in second- to fifth-grade children. *Scientific Studies of Reading, 1*(2), 161-185. [https://doi.org/10.1207/s1532799xssr0102\\_4](https://doi.org/10.1207/s1532799xssr0102_4)
- Uncad, C. (2022). Intervention material utilizing Kotobee application as an aid for modular distance learning for grade 10 mathematics. *Psychology in Education, 5*(1), 179-185. <https://ejournals.ph/article.php?id=20559>
- UNICEF. (2023). UNICEF: Only a third of 10-year-olds globally are estimated to be able to read and understand a simple written story. *UNICEF*. <https://www.unicef.org/bulgaria/en/press-releases/unicef-only-third-10-year-olds-globally-are-estimated-be-able-read-and-understand>
- Upadhyay, S. S. N., Brusnighan, S. M., & Folk, J. R. (2022). Readers accurately monitor their incidental word learning success during silent reading. *Acta Psychologica, 228*, Article 103653. <https://doi.org/10.1016/j.actpsy.2022.103653>
- Varaporn, S., & Sitthitikul, P. (2019). Effects of multimodal tasks on learners' critical reading ability and perceptions. *Reading in a Foreign Language, 31*(1), 81-108. ERIC. <https://files.eric.ed.gov/fulltext/EJ1212804.pdf>
- Villegas, B. (2021, June 29). *Addressing the Philippine education crisis*. Business World Online. <https://www.bworldonline.com/opinion/2021/06/29/379015/addressing-the-philippine-education-crisis-2/>
- Waruwu, W., Rahmawati, R., & Daulay, E. (2023). Improving fluent reading skills in learning English using the demonstration method for Grade III students at Talitakum Private Elementary School. *Randwick International of Education and Linguistics Science Journal, 4*(4), 857-867. <https://doi.org/10.47175/rielsj.v4i4.840>
- West, C. (2020, May 14). *What is an interactive ebook and how do you create one*. Visme Blog. <https://visme.co/blog/interactive-ebook/>
- Wu, Z., & Amzah, F. (2023). A comparative study on the effects of e-picture books and printed books on story comprehension and reading motivation among Chinese preschoolers. *Forum for Linguistic Studies, 5*(3), 1-14. <https://doi.org/10.59400/fls.v5i3.1954>
- Zhang, L., & Seepho, S. (2013). Metacognitive strategy use and academic reading achievement: Insights from a Chinese context. *Electronic Journal of Foreign Language Teaching, 10*(1), 54-69. <https://e-flt.nus.edu.sg/wp-content/uploads/docroot/v10n12013/zhang.pdf>
- Zhang, P. (2022). How does repetition affect vocabulary learning through listening to the teacher's explicit instruction? The moderating role of listening proficiency and preexisting vocabulary knowledge. *Language Teaching Research, 30*(20), 716-739. <https://doi.org/10.1177/13621688221140521>