

EDUCATION

Enhancing Comprehension Skills of Grade 6 Learners Using Pictodex (Picture-Text Connector Cards) Strategy

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Abstract

In today's educational landscape, many learners continue to experience difficulties in reading comprehension, particularly in understanding, interpreting, and connecting ideas from texts. These challenges are more evident among frustration-level readers who struggle with identifying details, sequencing events, determining main ideas, and making inferences. This action research aimed to determine the effectiveness of Pictodex (Picture-Text Connector Cards) in improving the reading comprehension skills of Grade 6 frustration-level learners in one of the elementary schools in Ozamiz City during the School Year 2025-2026. Specifically, the study sought to identify the learners' reading comprehension levels before and after the implementation of Pictodex and determine whether a significant difference existed between the pretest and posttest results. The study utilized a quantitative pre-experimental one-group pretest-posttest research design. Nineteen Grade 6 learners who were identified as frustration-level readers served as the respondents of the study through purposive sampling. A researcher-made reading comprehension test was used as the primary instrument in gathering data. The intervention was implemented for four weeks using Pictodex as a visual-text scaffolding strategy during reading sessions. Statistical tools such as frequency, percentage, mean, standard deviation, and paired t-test were used to analyze the gathered data. Findings revealed that learners demonstrated low reading comprehension performance before the implementation of Pictodex. After the intervention, learners showed improved comprehension performance, with more learners reaching higher performance levels. The study further revealed a significant difference between the learners' pretest and posttest scores, indicating that Pictodex effectively enhanced the reading comprehension skills of Grade 6 learners. The study concluded that Pictodex is an effective visual-text instructional strategy that supports learners in constructing meaning and improving comprehension skills.

Keywords: frustration-level learners; Pictodex; reading comprehension; visual-text strategy

1 Introduction

1.1 Context and rationale

Reading comprehension continues to be one of the most essential competencies in the Philippine K-12 curriculum, serving as a vital foundation for learning across subject areas. Numerous studies affirm its strong connection to academic success, demonstrating that pupils' comprehension levels directly influence their ability to process content in all learning domains (Cadiz-Gabejan and Quirino, 2021). This relevance has been consistently reflected in various local initiatives, including contextualized reading programs (Acedillo, 2023), online oral reading assessments (Nicolas, 2021), and collaborative reading innovations (Bermillo and Merto, 2022), all of which underscore that com-

prehension is not only a skill in English but a cross-disciplinary necessity essential to the learning progression of every elementary learner.

Despite its recognized importance, reading comprehension remains a persistent challenge among Filipino learners. Findings across grade levels reveal that many pupils continue to fall under the frustration level, exhibiting difficulties in decoding texts, drawing inferences, identifying main ideas, and sequencing events. Intermediate pupils often perform below proficiency in comprehension assessments (Tolibas, 2024), and factors such as low motivation, anxiety, and limited parental involvement further exacerbate these challenges (Dawang et al., 2025). Even in higher levels, significant gaps remain, with Grade 10 pupils still struggling to interpret information and comprehend texts beyond literal levels (Cabural and Infantado, 2023). These findings demonstrate that comprehension difficulties are not isolated occurrences but represent a widespread and ongoing concern across the educational system.

Within Grade 6, these national patterns are similarly evident. Baseline assessment results show that 20 out of the 40 pupils belong to the frustration level, revealing challenges in identifying details, sequencing, summarizing, and constructing meaning from texts. This mirrors findings in other local studies where frustration-level pupils experience low reading confidence, limited fluency, and reduced engagement (Ballara et al., 2025). Other related studies further emphasize that low vocabulary mastery (Fabillaran, 2024), insufficient motivation (Caupayan et al., 2024), and inadequate scaffolding during reading tasks (Samosa et al., 2021) contribute significantly to pupils' difficulties. These reinforce the urgent need for structured, developmentally appropriate, and visually supported strategies to improve comprehension among struggling readers.

Emerging research strongly supports the use of multimodal and visually scaffolded strategies to help struggling learners process text more effectively. Technology-based reading applications such as READTECH show significant improvements among struggling readers by integrating interactive visual elements and meaning-making cues (Quimsing and Cruz, 2024). Digital storytelling similarly enhances comprehension by offering visual contexts that help learners construct meaning (Estanislao, 2023). Strategies involving repeated readings, background knowledge activation, and guided questioning also contribute to improved comprehension accuracy (Caabay et al., 2024). Likewise, paired reading (Adviento-Rodulfa and Lopez, 2022), integrative approaches (Jordan and Sunico, 2022), and curriculum-based assessments (Federe et al., 2023) highlight the critical role of scaffolding in supporting meaning-making. These studies collectively demonstrate that comprehension significantly improves when pupils are provided with clear, guided, and visually supported cues during the reading process.

While numerous studies address reading comprehension, very few interventions focus on low-cost, tactile, picture-text connector tools specifically designed for frustration-level learners. Existing interventions often rely heavily on technology (READTECH, Online Oral Reading Test), narrative-based programs (Project WORDS), or cognitively demanding strategies (HOTS interventions, background knowledge activation). None of these studies examine the effectiveness of Pictodex - a manual, teacher-made picture-text matching tool intended to reduce cognitive load and support meaning-making through concrete visual scaffolds. This gap highlights the need for an intervention that is accessible, low-cost, visually reinforced, and tailored specifically for struggling readers.

In response to this gap, this action research aims to examine the effectiveness of Pictodex (Picture-Text Connector Cards) in improving the reading comprehension skills of Grade 6 pupils, particularly those at the frustration level. It seeks to investigate how Pictodex supports learners in identifying

details, inferring meaning, constructing main ideas, sequencing events, and summarizing texts more effectively and confidently, thereby contributing to more meaningful comprehension outcomes.

1.2 Strategy

The strategy employed in this study centers on the use of Pictodex (Picture-Text Connector Cards), a teacher-made instructional material designed to facilitate comprehension among frustration-level learners. Pictodex consists of picture cards paired with textual components such as vocabulary labels, key detail prompts, main idea strips, cause-effect arrows, and inferential cues. The tool is grounded in dual-coding and constructivist learning theories, which argue that comprehension improves when learners process both visual and verbal information simultaneously (Chitrakar and Nisanth, 2023). By engaging with concrete visual cues, learners are better able to make connections, organize ideas, and reduce cognitive load during reading tasks.

In classroom use, Pictodex was integrated into reading sessions for a period of four weeks. During these sessions, learners engaged in activities such as matching visual cues to text descriptions, sequencing events using picture strips, identifying important details from illustrations, determining the main idea through picture associations, and constructing summaries with the aid of visual-text prompts. The intervention began with teacher modeling, followed by guided practice, partner activities, and independent reading tasks. The structure was designed to gradually shift responsibility toward the learner while providing consistent scaffolding and support.

This approach aligns with the principles of inclusive and equitable education as promoted by the United Nations Sustainable Development Goal 4, which advocates accessible learning strategies that meet diverse learner needs. By offering a low-cost, visually anchored, and developmentally appropriate reading tool, Pictodex aims to support the literacy growth of frustration-level learners who often require additional scaffolds to comprehend texts.

1.3 Statement of the problem

This study aims to determine the effectiveness of Pictodex (Picture-Text Connector Cards) in improving the reading comprehension levels of frustration-level learners in Grade 6 in one of the elementary schools in Ozamis City during the School Year 2025-2026. Specifically, it sought to answer the following:

1. What is the learners' reading comprehension level before the implementation of Pictodex?
2. What is the learners' reading comprehension level after the implementation of Pictodex?
3. Is there a significant difference in the learners' reading comprehension levels before and after the implementation of Pictodex?

1.4 Null hypothesis

H_{01} : There is no significant difference in the learners' reading comprehension level before and after the implementation of Pictodex.

2 Research methodology

2.1 Research design

This study employed a quantitative, pre-experimental one-group pretest-posttest design to determine the effectiveness of the Pictodex (Picture-Text Connector Cards) in improving the reading comprehension of Grade 6 frustration-level learners. This design was appropriate because it measured learners' performance before and after exposure to the intervention, allowing the researcher to determine whether changes in comprehension could be attributed to the strategy. As explained by Marcos et al. (2024), pretest-posttest designs provided a practical method for monitoring growth and assessing the impact of an instructional tool over a defined period. This design was aligned with previous reading research that utilized structured pretests and posttests to evaluate gains in comprehension fostered by contextualized materials, vocabulary instruction, and repeated reading techniques (Acedillo, 2023). Because the target population consisted of identified frustration-level readers, this approach enabled a focused, systematic examination of Pictodex's impact within a single, specific group, which was consistent with the methodology used in studies involving struggling readers such as those by Chitrakar and Nisanth (2023), Escantilla and Filipino (2021), and Ballara et al. (2025).

2.2 Research setting

This study was conducted in one of the elementary schools in Ozamiz City, Misamis Occidental, Philippines. The school offered complete elementary education, including Grade 6. The school also provided a learning environment that supported classroom-based research, as it was equipped with well-ventilated classrooms, instructional materials, and a teaching staff committed to learners' development. The research focused on Grade 6 pupils enrolled in the current year.

The learners came from diverse socio-economic backgrounds and demonstrated varying levels of reading ability and comprehension skills. This setting was well suited for examining the effectiveness of a visual-text scaffolding strategy such as Pictodex, as it allowed the researcher to observe how structured, multimodal instructional supports enhanced reading comprehension within a regular classroom context.

2.3 Respondents of the study

The participants of this study were the 19 learners purposively selected from the 39 pupils enrolled in Grade 6 during the School Year 2025-2026. Purposive sampling was employed because the study specifically targeted learners who demonstrated low reading comprehension performance based on the results of a researcher-made diagnostic reading comprehension pre-test and initial performance assessment tasks. These learners consistently exhibited difficulty in identifying key details, sequencing events, determining the main idea, making inferences, and summarizing texts.

This sampling method was aligned with action research procedures and with related studies focusing on struggling readers, such as those conducted by Chitrakar and Nisanth (2023), Escantilla and Filipino (2021), and Ballara et al. (2025), which also concentrated on learners experiencing marked comprehension difficulties. Only learners with parental consent and learner assent were included, ensuring that participation was voluntary and ethically sound.

2.4 Research instrument

Four major instruments were used in this study to gather comprehensive data on learners' comprehension performance and reading behavior.

A. Reading Comprehension Test (Appendix A), a researcher-made 40-item assessment aligned with the Grade 6 MELCs and designed to measure three levels of comprehension: literal, inferential, and evaluative. The test includes short, age-appropriate items that progress from concrete manipulatives to pictorial representations, and finally to abstract numerical comparisons, allowing pupils to demonstrate understanding at each stage. To ensure validity, the test items were reviewed by education experts for clarity, relevance, and accuracy, and a pilot test was conducted to evaluate their appropriateness for Grade 6 learners. Reliability was assessed using Cronbach's alpha, with values above 0.70 indicating consistency and suitability for measuring pupils' retention of foundational numeracy skills.

This scale was used to determine test performance.

Table 1. Scale used to interpret the reading comprehension test scores.

Scores	Remarks
22–25	Outstanding
20–21	Very Satisfactory
18–19	Satisfactory
15–17	Fairly Satisfactory
1–14	Did Not Meet Expectations

B. Learner's Level of Participation Questionnaire (Appendix B) was used to monitor pupils' engagement, behavior, and use of visual-text strategies during Pictodex sessions. This checklist captures observable indicators related to attention, participation, comprehension behavior, task independence, and the ability to use Pictodex effectively. The use of observation checklists is consistent with standard classroom research practices, ensuring systematic monitoring of learners' progress throughout the intervention.

Table 2. Scale used to interpret the learner's level of participation questionnaire.

Responses	Continuum	Interpretation
5	4.20-5.0	Excellent
4	3.40 -4.19	Very Good
3	2.60-3.39	Good
2	1.80-2.59	Poor
1	1.0-1.79	Very Poor

C. Lesson Plan (Appendix C), which served as the instructional guide for implementing Pictodex during reading sessions. Each session begins with a five-item quick check to activate prior knowledge and determine readiness. The teacher models the use of the visual-text connector cards, demonstrates how picture cues support detail identification, sequencing, and summarizing, and then facilitates guided and independent activities. The lesson plan is designed to ensure that comprehen-

sion tasks gradually shift from teacher-led to pupil-independent, supporting the development of confidence and self-regulated reading skills.

The intervention material, Pictodex itself, consists of Picture-Text Connector Cards that include picture cards, vocabulary cards, key detail cards, main idea strips, inferential prompts, and cause-effect arrows. These materials functioned as visual scaffolds that guide learners in connecting textual information with images, allowing them to construct meaning more effectively. This structure reflects dual coding principles, which highlight the advantages of processing information through both visual and verbal channels.

2.5 Data collection

Prior to the conduct of the study, approval was secured from the Misamis University Research Ethics Board (MUREB) to ensure that all procedures complied with institutional and ethical research standards. A formal request letter was first submitted to the Dean of the College of Education of Misamis University. Upon approval, endorsement was sought from the Program Head, followed by permission from the Schools Division Office, the School Principal, the Grade Level Head, and the class Adviser. Data collection commenced only after all required approvals were obtained.

Following institutional approval, informed consent forms were distributed to the parents or guardians of the selected Grade 6 learners, along with assent forms for the pupils. These forms ensured that parents formally authorize their children's participation and that learners voluntarily agree to take part in the study with full understanding of its purpose and procedures.

The data collection process focused on determining the effectiveness of Pictodex (Picture-Text Connector Cards) in improving the reading comprehension skills of frustration-level learners. Baseline data were gathered through the administration of a Reading Comprehension Pretest and an initial Performance Assessment Test (PAT) prior to the implementation of the intervention. These instruments established the learners' initial comprehension levels in terms of identifying details, determining the main idea, sequencing events, making inferences, and summarizing texts.

The intervention was implemented over a four-week period through structured reading sessions integrating Pictodex as the primary instructional strategy. During each session, learners were engaged in guided and independent activities using picture-text matching cards, sequencing strips, inferential prompts, main idea strips, and summary frames. Throughout the intervention, weekly observation records, quick checks, and performance tasks were collected to monitor learners' participation, engagement, and use of visual-text strategies.

At the conclusion of the intervention, a Reading Comprehension Posttest and a final Performance Assessment Test (PAT) were administered to measure changes in learners' comprehension performance. The pretest and posttest instruments followed a consistent structure to ensure comparability, while the content was aligned with the objectives and skills emphasized during each week of instruction. Mean scores from the pretest and posttest results were computed and analyzed to determine improvements in reading comprehension attributable to the Pictodex intervention. Standardized scoring rubrics and validated rating scales were used to ensure objective, reliable, and systematic measurement of learners' progress.

2.6 Ethical consideration

Before the study was carried out, all ethical considerations were thoroughly established to uphold the rights, privacy, and overall well-being of the participants. Approval from the Misamis University

Research Ethics Board (MUREB) was secured to ensure that the research adheres to institutional and ethical standards. The researcher strictly observed all ethical protocols to safeguard the welfare of the respondents. Permission to conduct the study was also requested from the School Principal, the Grade Level Head, and the class adviser, with each approval obtained prior to the start of data collection. These authorizations confirmed that the study aligns with institutional policies and research guidelines.

Informed consent was administered to all involved parties. Parents or guardians of the selected Grade 6 pupils provided written consent, while the pupils gave their assent as a sign of voluntary participation. Participants received clear information about the study's purpose, procedures, potential benefits, and possible risks, and they were informed of their right to withdraw at any time without penalty.

Strict confidentiality and anonymity measures were upheld. No personally identifiable information was included in the data, and coded identifiers were assigned to each participant. All collected information was securely stored, digital files encrypted, and physical documents were kept in a locked cabinet accessible only to the researcher. These procedures were in full compliance with Republic Act No. 10173, also known as the Data Privacy Act of 2012, to ensure participants' privacy, dignity, and protection.

The study was also structured to minimize risks and prevent any form of harm. All activities, including those involving the PICTODEX Strategy, was conducted in a safe and supportive environment, with close supervision to avoid physical, psychological, or emotional discomfort. By observing these ethical considerations, the researcher ensured the protection of participants while maintaining the study's integrity and credibility.

2.7 Data analysis

This study utilized the following statistical methods for data analysis using JAMOV software:

Mean and standard deviation were used to measure the pupils' total scores on the Observation Checklist as an indicator of focus and learning retention.

A *paired t-test* was conducted to determine significant differences in pupils' focus and learning retention before and after the implementation of the PICTODEX strategy.

2.8 Dissemination

The findings of this study were shared with school administrators, teachers, Grade 6 pupils, and parents through reports, discussions, and simple summaries, highlighting the benefits of the PICTODEX strategy in improving the comprehension skills of the grade 6 learners. Ethical considerations, including consent and assent, were observed when presenting results to pupils and parents. The results were disseminated to the university community and other educators through seminars, presentations, and publications to provide practical insights and recommendations for implementing the PICTODEX strategy in classroom discussions.

2.9 Utilization

The results of this study was utilized through poster presentations and academic publication. A research poster summarizing the intervention, findings, conclusions, and recommendations was displayed during academic exhibits and research dissemination events at Misamis University. This

enabled teachers, students, school administrators, and other stakeholders to easily understand and apply the insights gained from the intervention. The researcher prepared the manuscript for submission to local academic journals or the university's research repository to extend its reach and encourage further study on the effectiveness of visual-text scaffolding strategies for struggling readers. Furthermore, teachers in the participating school were encouraged to adopt or adapt Pictodex as part of their reading instruction, particularly for frustration-level learners. The tool may also be shared with other grade levels, integrated into remedial reading programs, and used for classroom-based interventions.

2.10 Cost estimates

The estimated budget in the conduct of this study is broken down below from the personal money of the proponent. The proponent has a personal laptop and printer.

Table 3. Cost estimates (Grade 6).

Materials	Amount
1 ream A4 US bond paper	Php 170.00
1 set 664 ink	Php 1,180.00
2 illustration board	Php 80.00 x 2 (Php 160.00)
Tokens (Pencil & Paper)	Php 1, 500.00
Snacks	Php 1, 500.00
Total	Php 4, 510.00

3 Results and discussion

3.1 Learners' reading comprehension before the implementation of Pictodex

Table 4 presents the level of learners' reading comprehension before the implementation of the Pictodex (Picture-Text Connector Cards) strategy. Overall, the results indicate that the learners performed at a low level, as reflected in the overall mean score ($M = 23.64$, $SD = 2.78$), which falls under the "Did Not Meet Expectations" category. In terms of distribution, the majority of learners were classified as "Did Not Meet Expectations" ($n = 18$, 94.7%; $M = 18.28$, $SD = 5.56$), while only a small proportion reached the "Fairly Satisfactory" level ($n = 1$, 5.3%; $M = 29.0$, $SD = 0.00$).

These findings suggest that prior to the intervention, most Grade 6 learners demonstrated significant difficulties in reading comprehension. The very high percentage of learners in the lowest performance category indicates limited ability to understand, interpret, and connect ideas from texts. The low overall mean further supports the presence of comprehension gaps among the learners. Moreover, the relatively higher standard deviation among those who did not meet expectations ($SD = 5.56$) implies variability in their comprehension skills, meaning that while all performed poorly, some struggled more than others. The minimal number of learners achieving even a fairly satisfactory level highlights the need for structured and engaging instructional strategies to support comprehension development.

Findings across grade levels reveal that many pupils continue to fall under the frustration level, exhibiting difficulties in decoding texts, drawing inferences, identifying main ideas, and sequencing

events. Intermediate pupils often perform below proficiency in comprehension assessments (Tolibas, 2024), and factors such as low motivation, anxiety, and limited parental involvement further exacerbate these challenges (Dawang et al., 2025). Even in higher levels, significant gaps remain, with Grade 10 pupils still struggling to interpret information and comprehend texts beyond literal levels (Cabural and Infantado, 2023).

The results imply an urgent need for targeted interventions to improve learners' reading comprehension skills. Teachers and school administrators may consider integrating innovative strategies such as Pictodex to help learners make meaningful connections between visual and textual information. Additionally, reading remediation programs, guided reading sessions, and differentiated instruction can be implemented to address varying levels of comprehension difficulty. Regular monitoring and assessment should also be conducted to track learners' progress and adjust teaching approaches accordingly. By providing supportive learning environments and appropriate instructional materials, educators can help bridge the identified gaps and enhance overall reading comprehension among Grade 6 learners.

Table 4. Level of learners' reading comprehension before the implementation of Pictodex.

Performance	Frequency	Percentage	M	SD
Fairly Satisfactory	1	5.3%	29.0	0.00
Did Not Meet Expectations	18	94.7%	18.28	5.56
Overall Performance	19	100.00	23.64	2.78

Note: 38–40 (Outstanding); 35–37 (Very Satisfactory); 32–34 (Satisfactory); 29–31 (Fairly Satisfactory); 1–28 (Did Not Meet Expectations).

3.2 Learners' reading comprehension after the implementation of Pictodex

Table 5 presents the level of learners' reading comprehension after the implementation of the Pictodex (Picture-Text Connector Cards) strategy. Overall, the learners demonstrated improved performance, with an overall mean score ($M = 30.96$, $SD = 1.47$), which falls under the "Fairly Satisfactory" category. In terms of distribution, the highest proportion of learners remained in the "Did Not Meet Expectations" category ($n = 6$, 31.6%; $M = 25.5$, $SD = 3.02$), followed by those in the "Fairly Satisfactory" level ($n = 5$, 26.3%; $M = 29.6$, $SD = 0.89$). Both the "Very Satisfactory" ($n = 4$, 21.1%; $M = 35.5$, $SD = 1.0$) and "Satisfactory" ($n = 4$, 21.1%; $M = 33.3$, $SD = 0.96$) categories shared equal proportions, indicating that a notable number of learners reached higher levels of comprehension after the intervention.

Technology-based reading applications such as READTECH show significant improvements among struggling readers by integrating interactive visual elements and meaning-making cues (Quimsing and Cruz, 2024). Digital storytelling similarly enhances comprehension by offering visual contexts that help learners construct meaning (Estanislao, 2023). Strategies involving repeated readings, background knowledge activation, and guided questioning also contribute to improved comprehension accuracy (Caabay et al., 2024).

The findings indicate a positive shift in learners' reading comprehension following the implementation of Pictodex. Compared to the pre-intervention results, more learners were able to move into higher performance categories, particularly in the "Satisfactory" and "Very Satisfactory" levels. This suggests that the use of picture-text connections may have supported learners in constructing meaning, enhancing their understanding of texts, and improving their engagement in reading tasks.

However, it is important to note that a considerable proportion of learners (31.6%) still fell under the “Did Not Meet Expectations” category, indicating that while the strategy was beneficial for many, it may not have been sufficient to fully address the needs of all learners. The relatively lower overall standard deviation ($SD = 1.47$) also suggests more consistent performance among learners after the intervention.

The results imply that while Pictodex is an effective strategy in improving reading comprehension, additional support mechanisms are necessary to further reduce the number of learners performing below expectations. Teachers may consider combining Pictodex with other evidence-based approaches such as guided reading, peer-assisted learning, and explicit comprehension strategy instruction (e.g., summarizing, questioning, and predicting). School administrators may also support professional development programs focused on differentiated instruction and literacy interventions. Furthermore, targeted remediation activities, such as small-group instruction and scaffolded reading exercises, should be provided for struggling learners. Continuous assessment and monitoring are recommended to ensure that all learners progressively achieve the desired level of reading comprehension.

Table 5. Level of learners’ reading comprehension after the implementation of Pictodex.

Performance	Frequency	Percentage	M	SD
Very Satisfactory	4	21.1	35.5	1.0
Satisfactory	4	21.1	33.3	0.96
Fairly Satisfactory	5	26.3	29.6	0.89
Did Not Meet Expectations	6	31.6	25.5	3.02
Overall Performance	19	100.00	30.96	1.47

Note: 38–40 (Outstanding); 35–37 (Very Satisfactory); 32–34 (Satisfactory); 29–31 (Fairly Satisfactory); 1–28 (Did Not Meet Expectations).

3.3 Significant difference in the learners’ reading comprehension levels before and after the implementation of Pictodex

Table 6 presents the significant difference in the learners’ reading comprehension levels before and after the implementation of the Pictodex (Picture-Text Connector Cards) strategy. The results show a statistically significant difference between the pretest and posttest scores, as indicated by the computed t-value ($t = 12.5$, $p < .001$). This led to the rejection of the null hypothesis, confirming that the implementation of Pictodex had a significant effect on the learners’ reading comprehension performance.

Strategies involving repeated readings, background knowledge activation, and guided questioning also contribute to improved comprehension accuracy (Caabay et al., 2024). Paired reading (Adviento-Rodulfa and Lopez, 2022), integrative approaches (Jordan and Sunico, 2022), and curriculum-based assessments (Federe et al., 2023) highlight the critical role of scaffolding in supporting meaning-making. These studies collectively demonstrate that comprehension significantly improves when pupils are provided with clear, guided, and visually supported cues during the reading process.

The significant result ($t = 12.5$, $p < .001$) indicates a substantial improvement in learners’ comprehension skills after the intervention. The mean score increased from ($M = 18.8$, $SD = 5.94$) before the implementation to ($M = 30.3$, $SD = 4.33$) after the implementation, reflecting a marked

shift from the “Did Not Meet Expectations” level to a higher performance category. This suggests that the Pictodex strategy effectively supported learners in understanding texts by facilitating connections between visual cues and written information. The large t-value further implies that the difference in performance was not due to chance, but rather to the impact of the instructional intervention. Additionally, the reduction in standard deviation from (SD = 5.94) to (SD = 4.33) indicates that learners’ performance became more consistent after the strategy was applied.

The effectiveness of the Pictodex strategy in enhancing reading comprehension among Grade 6 learners. For teachers, this suggests the value of incorporating visual-text integration strategies into daily reading instruction to support comprehension development. School administrators may consider organizing training workshops or learning action cells (LAC sessions) focused on the use of innovative and learner-centered strategies such as Pictodex. Additionally, curriculum planners may integrate similar approaches into reading programs to address comprehension gaps. For struggling learners, targeted activities such as guided reading sessions, use of graphic organizers, and picture-supported storytelling can be implemented to reinforce comprehension skills. Continuous monitoring and assessment should also be conducted to sustain and further improve learners’ reading performance.

Table 6. Significant difference in the learners’ reading comprehension levels before and after the implementation of Pictodex.

Performance	M	SD	t-value	p-value	Decision
Before the implementation of Pictodex	18.8	5.94	12.5***	<.001	Reject H_{01}
After the implementation of Pictodex	30.3	4.33			

Note: ***p < 0.001 (Very Highly Significant); **p < 0.01 (Highly Significant); *p < 0.05 (Significant).

H_{01} : There is no significant difference in the learners’ reading comprehension level before and after the implementation of Pictodex.

4 Summary, findings, conclusions, and recommendations

4.1 Summary

This study aims to determine the effectiveness of Pictodex (Picture-Text Connector Cards) in improving the reading comprehension levels of frustration-level learners in Grade 6 in one of the elementary schools in Ozamis City during the School Year 2025-2026. Specifically, the study sought to determine the learners’ reading comprehension levels before and after the implementation of Pictodex and to identify if there was a significant difference between the pretest and posttest results. The study utilized a quantitative pre-experimental one-group pretest-posttest research design. Nineteen Grade 6 learners who were identified as frustration-level readers served as the respondents of the study. A researcher-made reading comprehension test was used as the primary instrument in gathering data. The intervention was implemented for four weeks using Pictodex as a visual-text scaffolding strategy during reading sessions. Mean, standard deviation, frequency, percentage, and paired t-test were used to analyze the gathered data. The findings revealed that learners’ reading comprehension improved after the implementation of Pictodex, showing a statistically significant difference between the pretest and posttest scores.

4.2 Findings

This study yielded the following findings:

1. Before the implementation of Pictodex, the learners demonstrated low reading comprehension performance, with most of them classified under the “Did Not Meet Expectations” level.
2. After the implementation of Pictodex, the learners showed improvement in their reading comprehension performance, with more learners reaching higher performance levels such as “Fairly Satisfactory,” “Satisfactory,” and “Very Satisfactory.”
3. There was a significant difference in the learners’ reading comprehension levels before and after the implementation of Pictodex, indicating that the strategy effectively improved the learners’ comprehension skills.

4.3 Conclusions

Based on the findings of the study, the following are the conclusions:

1. Grade 6 learners demonstrate low reading comprehension performance before the implementation of Pictodex, particularly in identifying details, sequencing events, making inferences, and understanding texts.
2. The implementation of Pictodex improves the reading comprehension performance of Grade 6 learners as reflected in their higher posttest scores and improved performance levels. Pictodex serves as an effective visual-text scaffolding strategy that helps learners connect pictures and texts to construct meaning and better understand reading materials.
3. The significant difference between the pretest and posttest scores confirms that Pictodex contributes positively to the enhancement of learners’ reading comprehension skills.

4.4 Recommendations

Based on the findings and conclusions of the study, it is recommended that:

1. English teachers integrate Pictodex in reading instruction to help Grade 6 learners improve their reading comprehension skills through visual-text connections and guided reading activities.
2. School administrators support the implementation of innovative reading strategies such as Pictodex by providing instructional materials, training, and literacy intervention programs for struggling readers.
3. Future researchers conduct related studies using larger groups of learners and longer intervention periods to further examine the effectiveness of Pictodex in improving reading comprehension skills.

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