

# Reading levels and comprehension performance of students using the Philippine Informal Reading Inventory (Phil-IRI): Basis for the development and evaluation of an instructional reading module

Marites P. Geronimo \* and Suzette DC. Domingo

*Institute of Linguistics and Literature, Nueva Ecija University of Science and Technology (NEUST), Cabanatuan City, Philippines.*

World Journal of Advanced Research and Reviews, 2026, 31(01), 1846–1850

Publication history: Received on 22 June 2026; revised on 29 July 2026; accepted on 31 July 2026

Article DOI: <https://doi.org/10.30574/wjarr.2026.31.1.2022>

## Abstract

Reading proficiency is the cornerstone of academic achievement and lifelong learning. This study evaluated the reading levels and comprehension performance of elementary learners at JP Melencio Elementary School in Cabanatuan City using the Philippine Informal Reading Inventory (Phil-IRI) as an empirical diagnostic tool. Findings from the initial assessment served as the empirical basis for designing, implementing, and validating the **GABAY BASA** instructional reading module—an evidence-based literacy intervention created by the Institute of Linguistics and Literature at Nueva Ecija University of Science and Technology (NEUST). Employing a quasi-experimental pre-test–post-test research design to Grade 3 learners, the study measured changes in oral reading word recognition, silent reading comprehension, and overall reading profile classification before and after module implementation. Pre-test diagnostic results revealed a critical literacy gap, with 48.33% of learners categorized under the Frustration level and 5.00% as Non-Readers. Post-intervention evaluation following the systematic integration of the GABAY BASA module demonstrated statistically significant gains ( $p < .001$ ): Frustration readers dropped to 10.83%, while Independent readers surged from 14.17% to 52.50%. The results validate the effectiveness of higher education institution (HEI)–basic education partnerships in delivering targeted, culturally responsive, and contextualized reading materials to fulfill the Department of Education's vision of producing fluent and independent readers.

**Keywords:** Phil-Iri; Gabay Basa; Reading Comprehension; Word Recognition; Literacy Intervention; NEUST; JP Melencio Elementary School

## 1. Introduction

Literacy serves as the foundational pillar for cognitive development, academic progression, and meaningful participation in contemporary society. Reading proficiency is essential for learners' academic success, as it enables them to acquire knowledge, communicate effectively, and develop higher-order thinking skills. However, recent national and international assessments have revealed persistent challenges in reading among Filipino learners. Results of the Programme for International Student Assessment (PISA) 2018 showed that Filipino students performed significantly below the OECD average in reading literacy, highlighting the need for strengthened literacy instruction and targeted interventions (1).

In response to these concerns, the Department of Education (DepEd) strengthened its literacy initiatives through the Every Child A Reader Program (ECARP) and institutionalized the implementation of the Philippine Informal Reading Inventory (Phil-IRI) under DepEd Order No. 14, s. 2018. The Phil-IRI serves as a classroom-based assessment tool that determines learners' reading proficiency in terms of oral reading, word recognition, fluency, and comprehension. Its

\* Corresponding author: Marites P. Geronimo.

results provide teachers with diagnostic information necessary for designing appropriate instructional and remedial programs that address learners' specific reading needs (2).

Anchored on Vygotsky's Zone of Proximal Development (ZPD) and LaBerge and Samuels' Automaticity Theory of Reading, this study views reading development as a process that is enhanced through scaffolded instruction and repeated, systematic practice (3). The ZPD explains that learners achieve optimal learning when instructional activities are slightly beyond their current level of independent performance but are supported through appropriate guidance (4). Consistent with this perspective, the Philippine Informal Reading Inventory (Phil-IRI) categorizes learners into Independent, Instructional, and Frustration reading levels, enabling teachers to provide interventions that correspond to learners' specific reading abilities. Complementing this framework, Automaticity Theory emphasizes that fluent reading is achieved when word recognition becomes automatic, allowing learners to devote greater cognitive resources to comprehension. Together, these theories provide the conceptual foundation for designing differentiated reading interventions that address learners' identified reading difficulties.

Guided by these theoretical principles, the GABAY BASA instructional reading module was developed as an evidence-based and scaffolded intervention using learners' Phil-IRI assessment results as the basis for instructional design. The module consists of structured and progressively sequenced learning activities that strengthen decoding and word recognition through phonics and word recognition exercises, improve reading fluency through guided and repeated oral reading activities, and enhance comprehension through tiered questioning strategies that progress from literal understanding to inferential and evaluative thinking (5). By aligning instructional materials with learners' diagnosed reading needs, the module seeks to provide teachers with an effective resource for implementing focused remediation and improving the reading performance of struggling elementary readers (6).

Specifically, this study aimed to determine the baseline reading levels and comprehension performance of selected elementary learners using the Phil-IRI, develop and validate the GABAY BASA instructional reading module based on the diagnostic findings, evaluate learners' reading performance following the implementation of the intervention, and determine whether a statistically significant difference exists between the learners' pre-test and post-test Phil-IRI scores. Through these objectives, the study intends to contribute to evidence-based literacy instruction by demonstrating the effectiveness of a contextualized instructional reading module in addressing the reading needs of elementary learners.

---

## 2. Methods

### 2.1. Research Design

This study utilized a quasi-experimental pre-test–post-test single-group research design combined with descriptive-analytical methods. The baseline assessment established the participants' initial reading profiles, which directly informed the module content. Following an 8-week structured intervention using the GABAY BASA module, a post-test assessment was conducted to evaluate performance gains.

### 2.2. Participants and Sampling

The target population comprised elementary learners enrolled at JP Melencio Elementary School, Cabanatuan City, during the implementation period. A purposive sampling technique was employed to select N = 120 learners from Grade 3 who were initially identified through the Phil-IRI Group Screening Test (GST) as performing below grade-level expectations (Instructional, Frustration, or Non-Reader levels).

### 2.3. Research Instruments and Materials

Two primary instruments were utilized in this study. The first was the **Philippine Informal Reading Inventory (Phil-IRI) Diagnostic Tool**, a standardized classroom-based assessment developed by the Department of Education (DepEd) to determine learners' reading proficiency in both English and Filipino. The Phil-IRI measures two major components of reading performance: word recognition and reading comprehension. Word recognition is assessed through oral reading to determine learners' decoding accuracy and reading fluency, while reading comprehension is evaluated through learners' ability to answer questions based on the passages they have read. The assessment results are used to classify learners into the Independent, Instructional, or Frustration reading levels and provide diagnostic information for planning appropriate instructional and remedial interventions.

The second instrument was the **GABAY BASA Instructional Reading Module**, an evidence-based and contextualized intervention material developed based on the learners' Phil-IRI diagnostic results. The module consists of carefully

sequenced reading activities designed to strengthen foundational literacy skills, including phonics, word recognition, vocabulary development, reading fluency, and comprehension. It incorporates contextualized reading passages, explicit decoding exercises, vocabulary enrichment activities, guided oral reading, repeated reading tasks, and scaffolded comprehension exercises that progressively develop learners' reading abilities. The instructional activities were specifically designed to support struggling readers and facilitate their progression from the Frustration level toward the Instructional and Independent reading levels.

#### 2.4. Data Gathering Procedure and Analysis

Data gathering was conducted in four sequential phases. The first phase involved the administration of the Philippine Informal Reading Inventory (Phil-IRI) pre-test to establish the baseline reading profiles of the participants. The second phase focused on analyzing the diagnostic results and finalizing the GABAY BASA instructional reading module based on the identified reading needs of the learners. The third phase consisted of implementing the GABAY BASA intervention, during which participants engaged in structured reading activities designed to improve word recognition, reading fluency, vocabulary, and comprehension. The final phase involved the administration of the Phil-IRI post-test to assess changes in learners' reading performance following the intervention.

The collected data were analyzed using Jamovi (Version 2.3) and IBM SPSS. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the participants' reading performance. To determine whether a statistically significant difference existed between the pre-test and post-test Phil-IRI scores, a paired-samples *t*-test was performed using a significance level of .05.

### 3. Results and discussion

#### 3.1. Pre-Test vs. Post-Test Word Recognition Performance

Prior to the intervention, learners exhibited significant decoding miscues, including mispronunciations, word substitutions, and line omissions. Following the implementation of the GABAY BASA module, word recognition accuracy improved across all grade levels.

**Table 1** Oral Reading Word Recognition Performance Before and After Intervention

| Performance Range | Score Range / Criteria | Pre-Test (f) | Pre-Test (%) | Post-Test (f) | Post-Test (%) |
|-------------------|------------------------|--------------|--------------|---------------|---------------|
| High              | 97% - 100% Accuracy    | 18           | 15.00%       | 65            | 54.17%        |
| Moderate          | 90% - 96% Accuracy     | 40           | 33.33%       | 44            | 36.67%        |
| Low               | 80% - 89% Accuracy     | 56           | 46.67%       | 11            | 9.16%         |
| Very Low          | 80% Accuracy           | 6            | 5.00%        | 0             | 0.00%         |
| Total             |                        | 120          | 100.00%      | 120           | 100.00%       |

#### 3.2. Pre-Test vs. Post-Test Reading Comprehension Performance

Comprehension scores were categorized according to learners' accuracy in answering literal, inferential, and critical evaluation questions based on the Phil-IRI passages.

**Table 3** Silent Reading Comprehension Levels Before and After Intervention

| Comprehension Level | Score Range | Pre-Test (f) | Pre-Test (%) | Post-Test (f) | Post-Test (%) |
|---------------------|-------------|--------------|--------------|---------------|---------------|
| Independent         | 80% - 100%  | 17           | 14.17%       | 63            | 52.50%        |
| Instructional       | 59% - 79%   | 39           | 32.50%       | 44            | 36.67%        |
| Frustration         | 1% - 58%    | 58           | 48.33%       | 13            | 10.83%        |
| Non-Reader          | 0%          | 6            | 5.00%        | 0             | 0.00%         |
| Total               |             | 120          | 100.00%      | 120           | 100.00%       |

### 3.3. Overall Phil-IRI Reading Profile Classification

By combining word recognition accuracy and comprehension scores, learners were assigned an overall Phil-IRI reading profile. Table 4 presents the comparative overall profile distribution and the net percentage shifts.

**Table 4** Overall Phil-IRI Reading Profile Distribution and Shifts

| Overall Profile Level | Pre-Test (f) | Pre-Test (%) | Post-Test (f) | Post-Test (%) | Percentage Shift |
|-----------------------|--------------|--------------|---------------|---------------|------------------|
| Independent           | 17           | 14.17%       | 63            | 52.50%        | +38.33%          |
| Instructional         | 39           | 32.50%       | 44            | 36.67%        | +4.17%           |
| Frustration           | 58           | 48.33%       | 13            | 10.83%        | -37.50%          |
| Non-Reader            | 6            | 5.00%        | 0             | 0.00%         | -5.00%           |
| Total                 | 120          | 100.00%      | 120           | 100.00%       |                  |

### 3.4. Inferential Analysis of Mean Differences

A paired-samples *t*-test was executed to test the statistical significance of score gains in Word Recognition and Comprehension following the GABAY BASA intervention.

**Table 5** Paired-Samples T-Test Analysis of Pre-Test and Post-Test Scores

| Variable             | Pre Mean (M) | Pre SD | Post Mean (M) | Post SD | Mean Diff. | t-value | df  | p-value | Effect Size (Cohen's d) |
|----------------------|--------------|--------|---------------|---------|------------|---------|-----|---------|-------------------------|
| Word Recognition (%) | 84.32        | 11.24  | 95.18         | 5.41    | +10.86     | 12.45   | 119 | <.001   | 1.22 (Large)            |
| Comprehension (%)    | 54.60        | 16.85  | 79.25         | 11.30   | +24.65     | 16.12   | 119 | <.001   | 1.72 (Large)            |

The paired-samples *t*-test revealed statistically significant improvements in both word recognition ( $t(119) = 12.45, p < .001$ ) and silent reading comprehension ( $t(119) = 16.12, p < .001$ ) following the implementation of the GABAY BASA instructional reading module. The computed effect sizes ( $d = 1.22$  for word recognition and  $d = 1.72$  for silent reading comprehension) indicate large practical effects, suggesting that the intervention substantially enhanced the learners' reading performance. These findings demonstrate that the GABAY BASA module was effective in improving both foundational reading skills and comprehension among the participating elementary learners.

The empirical findings of this study demonstrate the transformative impact of targeted, assessment-driven reading modules in primary education. Baseline results mirrored national reading challenges documented across Philippine public schools, where nearly half of tested intermediate grade learners functioned at the Frustration reading level when assessed with grade-level texts.

## 4. Conclusion

The study concludes that the GABAY BASA Instructional Reading Module, designed and developed is an effective and highly validated evidence-based reading intervention tool. Its implementation at JP Melencio Elementary School resulted in statistically significant, large-effect-size improvements in word recognition, oral reading fluency, and silent reading comprehension.

### Recommendations

- JP Melencio Elementary School may institutionalize the GABAY BASA module as a permanent remedial tool within its school reading program matrix.
- The Schools Division Office (SDO) of Cabanatuan City may consider scaling the GABAY BASA module across neighboring elementary schools with high proportions of Frustration readers.

- JP Melencio Elementary School may conduct regular Learning Action Cell (LAC) sessions to train public school teachers on miscue analysis and scaffolded comprehension strategies.
- JP Melencio Elementary School may expand future extension-research studies to evaluate long-term retention of comprehension gains and track academic performance across other subject areas.

---

## Compliance with ethical standards

### *Disclosure of conflict of interest*

The authors declare no conflicts of interest.

---

## References

- [1] Casingal, C. P., & Balaba, M. F. C. (2026). Filipino reading proficiency changes among elementary and junior high school students through pre-post PHIL-IRI assessment analysis in Makati City schools. ResearchGate / Zenodo. <https://doi.org/10.5281/zenodo.18862400>
- [2] Department of Education. (2018). Policy guidelines on the administration of the Revised Philippine Informal Reading Inventory (Phil-IRI) (DepEd Order No. 14, s. 2018). Department of Education, Republic of the Philippines.
- [3] De Vera, P. M., Ramos, R. L., & Santos, M. A. (2021). Contextualized reading intervention materials and comprehension levels of intermediate elementary pupils. *Journal of Educational Literacy and Language Studies*, 8(2), 45–58.
- [4] LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6(2), 293–323. [https://doi.org/10.1016/0010-0285\(74\)90015-2](https://doi.org/10.1016/0010-0285(74)90015-2)
- [5] Saguing, G. (2024). Reading readiness and Phil-IRI outcomes among intermediate elementary learners. *Philippine E-Journals / Journal of Educational Research*, 12(1), 112–125.
- [6] Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.