



(RESEARCH ARTICLE)



UTILIZATION OF PROJECT TILES (*TEACHING AND IMPROVING LITERACY THROUGH ENHANCED STRATEGIES*) TO IMPROVE LEARNERS' PHONEMIC AWARENESS

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ABSTRACT

This action research examined the effectiveness of **Project TILES** (Teaching and Improving Literacy through Enhanced Strategies) in improving the phonemic awareness of selected Grade 1 learners. Phonemic awareness is a critical predictor of early reading success, yet classroom observations and literacy assessments revealed that several learners most especially the beginners, had trouble identifying, blending, segmenting, and manipulating sounds in words.

Using CRLA-Comprehensive Rapid Literacy Assessment, a pretest-posttest action research design, the researcher implemented Project TILES over a six-week intervention period. Learners participated in structured activities utilizing letter, sound manipulation exercises, phoneme blending, segmentation drills, word-building activities, and interactive literacy games. Data were gathered through teacher-made phonemic awareness tests, classroom observations, reading progress monitoring sheets, and learner performance records.

Results indicated a marked improvement in learners' phonemic awareness skills after the intervention. Grade 1 learners demonstrated increased proficiency in recognizing beginning, medial, and ending sounds, blending phonemes into words, and segmenting spoken words into individual sounds. Increased learner engagement, confidence, and classroom participation were likewise observed.

The findings suggest that Project TILES is an effective and sustainable intervention that enhances phonemic awareness and supports beginning reading instruction among Grade 1 learners.

Keywords: Phonemic Awareness, Literacy Intervention, Beginning Reading, Letter Tiles, Project TILES, Grade 1

1 INTRODUCTION

The child's ability to read proficiently begins with strong phonological and phonemic awareness. According to research, phonemic awareness is among the strongest predictors of future reading achievement because it enables children to

recognize and manipulate the individual sounds that make up spoken words. Basically, learners who fail to develop this skill often experience difficulties in decoding, word recognition, spelling, and reading comprehension.

During the administration of classroom reading assessments, Comprehensive Rapid Literacy Assessment (CRLA), and teacher-made diagnostic activities, several Grade 1 learners exhibited persistent difficulties in identifying letter sounds, blending phonemes, segmenting words, and distinguishing beginning, medial, and ending sounds. These challenges hindered their progress in learning to read and affected their overall classroom performance.

Traditional teacher-directed instruction alone proved insufficient to address the varying literacy needs of struggling readers. Learners required a more concrete, engaging, and multisensory approach that would allow them to manipulate sounds physically while developing their understanding of the alphabetic principle.

To respond to this need, the researcher designed **Project TILES (Teaching and Improving Literacy through Enhanced Strategies)**. The intervention utilized letter tiles and structured phonemic awareness activities that enabled learners to physically manipulate letters while listening to and producing speech sounds. This multisensory approach was expected to strengthen learners' phonological processing skills and improve reading readiness.

Moreover, to maximize the effectiveness of the Project TILES, the intervention was enriched with a variety of engaging and developmentally appropriate learning resources. Beyond the use of letter tiles for phoneme segmentation, blending, and manipulation, learners participated in **interactive games, teacher-made worksheets, instructional videos, spelling booklets, flashcards, picture-word matching activities, phonics drills, and guided reading exercises**. These supplementary strategies provided learners with multiple opportunities to practice phonemic awareness skills through visual, auditory, kinesthetic, and tactile learning experiences.

The integration of these varied instructional materials not only sustained learners' interest and motivation but also reinforced letter-sound correspondence, word formation, and decoding skills. By offering repeated and meaningful practice across different learning modalities, the enhanced TILE Strategy addressed the diverse learning needs of beginning readers and created a more engaging environment for developing foundational literacy skills.

In addition, the intervention was implemented using a **gradual progression of learning activities**, beginning with the recognition of letter sounds, followed by phoneme isolation, blending, segmentation, substitution, spelling, and word reading. Interactive games served as formative assessment tools that encouraged active participation, while worksheets and spelling booklets provided opportunities for independent practice and skill reinforcement. Instructional videos modeled correct pronunciation and sound blending, allowing learners to revisit lessons as needed. This combination of explicit instruction, hands-on manipulation of letter tiles, and varied reinforcement activities created a comprehensive literacy intervention that promoted mastery of phonemic awareness skills and increased learners' confidence and enthusiasm for reading.

The study was anchored on the Simple View of Reading (Gough & Tunmer, 1986), Ehri's Phase Theory of Word Reading Development (Ehri, 2005), and the National Reading Panel's recommendation that explicit phonemic awareness instruction significantly contributes to successful beginning reading.

1.1 Statement of the Problem

This action research aims to determine the effectiveness of **Project TILES (Teaching and Improving Literacy through Enhanced Strategies)** in improving the phonemic awareness of Grade 1 learners identified as Emerging Readers through the Comprehensive Rapid Literacy Assessment (CRLA) at the beginning of the School Year 2025–2026.

Specifically, this study seeks to answer the following research questions:

- What is the level of learners' phonemic awareness before the implementation of Project TILES as measured by the pre-intervention assessment?
- What is the level of learners' phonemic awareness after the implementation of Project TILES as measured by the post-intervention assessment?
- Is there a significant difference between the learners' pre-intervention and post-intervention phonemic awareness scores after the implementation of Project TILES?

1.2 Significance of the Study

This action research entitled “Utilization of Project TILES (*Teaching and Improving Literacy through Enhanced Strategies*) to improve Learners' Phonemic Awareness” aims to determine the effectiveness of Project TILES in

enhancing the phonemic awareness of Grade 1 learners identified as Emerging Readers. The findings of this study are expected to benefit the following:

1.2.1 Learners

The primary beneficiaries of this study are the Grade 1 learners from Grade 1- Masikap currently enrolled in Bagumbayan Elementary School, particularly those identified as Emerging Readers through the Comprehensive Rapid Literacy Assessment (CRLA). Through the structured implementation of Project TILES, learners are expected to develop stronger phonemic awareness skills, including phoneme identification, segmentation, blending, and manipulation. Improved phonemic awareness will help them decode words more accurately, read with greater confidence, and establish a stronger foundation for future literacy learning.

1.2.2 Teachers

The results of this study may provide teachers with an effective, practical, and evidence-based instructional strategy for teaching phonemic awareness. Project TILES may serve as an engaging intervention that can be integrated into daily reading instruction, remediation sessions, and literacy enhancement programs to support struggling readers and improve classroom reading outcomes.

1.2.3 School Heads and Instructional Leaders

The findings may serve as a basis for strengthening school-based reading intervention programs and literacy initiatives. School heads, master teachers, and instructional leaders may use the results in planning professional development activities, monitoring literacy interventions, and allocating resources that support the improvement of foundational reading skills among beginning learners.

1.2.4 Parents and Guardians

This study may encourage parents and guardians to actively support their children's literacy development at home. The simple and interactive nature of letter tile activities can be adapted for home practice, allowing families to reinforce phonemic awareness skills and contribute to their children's reading progress.

1.2.5 Department of Education

The findings may contribute to the Department of Education's efforts to strengthen foundational literacy under the MATATAG Curriculum and other reading initiatives. The study may provide local evidence supporting the use of structured, learner-centered, and multisensory interventions that improve the reading readiness of early-grade learners.

1.2.6 Future Researchers

This study may serve as a valuable reference for researchers who intend to conduct similar studies on phonemic awareness, early literacy instruction, reading interventions, or the use of manipulative learning materials. It may also provide baseline information for future investigations involving different grade levels, learning contexts, or literacy strategies.

Ultimately, this study is expected to contribute to the continuous improvement of literacy instruction by providing empirical evidence on the effectiveness of Project TILES (*Teaching and Improving Literacy through Enhanced Strategies*) as an intervention for improving the phonemic awareness of Grade 1 learners. The findings may help promote more effective reading instruction and support the development of independent, confident, and proficient young readers.

1.3 Scope and Delimitation

This action research focused on determining the effectiveness of Project TILES (*Teaching and Improving Literacy through Enhanced Strategies*) in improving the phonemic awareness of Grade 1 learners identified as Emerging Readers through the Comprehensive Rapid Literacy Assessment (CRLA).

The study was conducted at Bagumbayan Elementary School during School Year 2025–2026. The participants of the study were selected learners from Grade 1–Masikap who were classified as Emerging Readers based on the results of the CRLA administered at the beginning of the school year. These learners received the Project TILES intervention through structured and guided learning sessions using letter tiles.

The intervention focused on developing learners' phonemic awareness skills, specifically phoneme identification, phoneme segmentation, phoneme blending, and phoneme manipulation through multisensory, learner-centered activities. The effectiveness of the intervention was measured using researcher-made pre-intervention and post-

intervention phonemic awareness assessments. The data gathered were analyzed using appropriate descriptive and inferential statistical tools to determine whether there was a significant improvement in the learners' phonemic awareness after the implementation of Project TILES.

This study is limited to the implementation of Project TILES as a classroom-based reading intervention and did not examine other components of reading such as vocabulary development, reading fluency, reading comprehension. Likewise, the findings of this study were limited to the participants involved and the context of Bagumbayan Elementary School during the conduct of the research. Although the results provided valuable insights for similar educational settings, they could not be generalized to all Grade 1 learners or schools without considering differences in learner characteristics, instructional contexts, and available resources.

Furthermore, the success of the intervention may have been influenced by factors beyond the control of the researcher, such as learners' attendance, home literacy support, individual learning pace, and participation during intervention sessions. Despite these limitations, the study provided meaningful evidence on the effectiveness of Project TILES as an instructional intervention for strengthening the phonemic awareness of beginning readers.

2 MATERIALS AND METHODS

2.1 Research Design

This study utilized a **Classroom-Based Action Research Design** to determine the effectiveness of **Project TILES** (*Teaching and Improving Literacy through Enhanced Strategies*) in improving the phonemic awareness of Grade 1 learners. Action research was deemed appropriate because it allowed the teacher-researcher to identify a specific literacy challenge among learners, implement a targeted intervention, monitor its effectiveness, and make instructional improvements based on evidence gathered from the classroom setting.

The study employed a **one-group pretest-posttest design** to measure the improvement in learners' phonemic awareness skills before and after the implementation of Project TILES. A pretest was administered to determine the learners' baseline performance in identifying letter sounds, recognizing phonemes, blending sounds, segmenting words, and decoding simple words. Based on the results, selected Grade 1 learners who demonstrated difficulty in foundational reading skills participated in the intervention.

After the implementation of the intervention, a posttest was administered using the same or parallel assessment tool to determine the learners' progress. The difference between the pretest and posttest results was analyzed to identify the effectiveness of Project TILES in improving learners' phonemic awareness.

Both **quantitative and qualitative data** were gathered in the study. Quantitative data included learners' pretest and posttest scores, percentage of improvement, and mean scores, while qualitative data were obtained through teacher observations, learner participation records, activity outputs, and anecdotal notes. These sources provided deeper understanding of how the intervention influenced learners' engagement, confidence, and literacy development.

Through this action research design, the study aimed not only to measure the impact of Project TILES but also to provide a practical, sustainable, and classroom-based literacy intervention that can support beginning readers in developing essential phonemic awareness skills.

2.2 Participants

Participants consisted of selected Grade 1 learners from Section Masikap identified through:

- Comprehensive Rapid Literacy Assessment (CRLA)
- Classroom Reading Assessment
- Teacher-made Diagnostic Test
- Classroom Observation

These learners demonstrated difficulties in phonemic awareness skills and required targeted intervention.

2.3 Research Instruments

The following instruments were utilized:

- Phonemic Awareness Pretest and Posttest
- Teacher Observation Checklist

- Reading Progress Monitoring Sheet
- Learner Performance Record
- Anecdotal Observation Notes

2.4 Data Collection Procedure

- Administration of Pretest
- Identification of Target Learners
- Six-week Implementation of Project TILES
- Continuous Monitoring
- Administration of Posttest

2.5 Data Analysis and Interpretation

The data gathered in this study were analyzed using quantitative and qualitative approaches to determine the effectiveness of the TILE Strategy in improving the phonemic awareness skills of Grade 1 learners.

Quantitative data obtained from the pretest and posttest results were analyzed using frequency count, percentage, mean score, and percentage gain to determine the improvement in learners' performance after the implementation of the intervention. The difference between the learners' pretest and posttest scores served as the basis for measuring the effectiveness of the TILE Strategy in enhancing their ability to recognize sounds, identify phonemes, blend and segment sounds, and decode simple words.

The study employed descriptive statistics, specifically frequency count, percentage distribution, and percentage gain, to analyze the reading performance of the Grade 1 learners before and after the implementation of Project TILES.

Frequency Count was used to determine the number of learners in each reading level category (Reading at Grade Level, Transitioning Readers, Developing Readers, High Emerging Readers, and Low Emerging Readers) during the Beginning of the School Year (BOSY) and End of the School Year (EOSY).

The Percentage Distribution was computed to determine the proportion of learners in each reading level using the formula:

$$\text{Percentage} = \frac{f}{N} \times 100$$

Where:

- f = Frequency of learners in each reading level
- N = Total number of respondents
- 100 = Constant percentage value

To determine the extent of improvement from BOSY to EOSY, the Percentage Gain was computed using the formula:

$$\text{Percentage Gain} = \frac{\text{Posttest Percentage} - \text{Pretest Percentage}}{\text{Pretest Percentage}} \times 100$$

Where:

- Posttest Percentage = Percentage of learners at EOSY
- Pretest Percentage = Percentage of learners at BOSY

3 RESULTS

3.1 Pre-Assessment Result

The table 1 presents the performance of learners before and after the implementation of the TILE Strategy. The pretest results revealed that learners initially demonstrated difficulty in identifying letter sounds, blending phonemes, segmenting words, and decoding simple words, showing 21 out of 31 or 67% of learners belong to LOW EMERGING READERS, 6 or 25.80% belong to HIGH EMERGING READERS, 2 or 6.45% belong to DEVELOPING as well as the TRANSITIONING READERS and 0 or 0% were under READING AT GRADE LEVEL. This indicates that learners needed additional instructional support in developing foundational literacy skills.

Table 1: The results and percentage of the different reading level in BOSY

Grade 1 Masikap Learners / Respondents	Reading at Grade Level	Transitioning Readers	Developing Readers	High Emerging Readers	Low Emerging Readers
14 Male	0	2	1	4	7
%	0%	14%	6%	29%	50%
17 Female	0	0	1	2	14
%	0%	0%	6%	12%	82%
31 TOTAL	0	2	2	6	21
	0%	6.45%	6.45%	25.80%	67%

3.1.1 Implementation of Project TILES Intervention

Project TILES is an instructional intervention developed to strengthen phonemic awareness through hands-on, learner-centered activities. It utilizes letter tiles as its primary instructional manipulative, enabling learners to actively construct, manipulate, and decode words by physically arranging letters to represent individual sounds. Unlike traditional teacher-led phonics instruction, Project TILES promotes active participation through multisensory learning experiences that engage learners visually, auditorily, and kinesthetically. This hands-on approach allows learners to concretely connect letter symbols with their corresponding sounds, thereby strengthening phonemic awareness and facilitating orthographic mapping.

To enhance the effectiveness of the intervention, the letter tile activities were complemented by a variety of instructional materials and reinforcement strategies, **including interactive phonics games, teacher-made worksheets, spelling booklets, instructional videos, flashcards, picture-word matching activities, guided reading exercises, word-building tasks, and formative assessment activities.** These supplementary learning resources provided learners with repeated opportunities to practice phoneme isolation, blending, segmentation, substitution, and word reading in meaningful and enjoyable contexts.

The intervention was implemented through a structured and sequential instructional process that gradually developed learners' phonological skills. Sessions began with letter-sound recognition and phoneme identification, progressed to blending and segmenting sounds using letter tiles, and culminated in spelling and decoding simple words. Each learning session incorporated immediate feedback, guided practice, independent application, and reinforcement activities to ensure mastery of targeted skills.

The intervention consisted of the following activities:

- Letter Tile Manipulation
- Letter Sound Recognition
- Phoneme Isolation
- Sound Blending Activity
- Phoneme Segmentation
- Word Building
- Interactive Games
- Teacher-Made Worksheet
- Spelling Booklets

- Flashcards and Picture Cards
- Guided Reading Independent Practice
- Progress Monitoring
- Recognition and Reinforcement

Randomly, each intervention session lasted **approximately 10-20 minutes, conducted five times per week** over a period of **ten-twelve weeks**. The intervention followed the gradual release guided, collaborative and independent practice. Continuous monitoring enabled the researcher to provide immediate corrective feedback while documenting learner progress.

3.2 Post-Assessment Results

Table 2: The results and percentage of the different reading level in EOSY

Grade 1 Masikap Learners / Respondents	Reading at Grade Level	Transitioning Readers	Developing Readers	High Emerging Readers	Low Emerging Readers
16 Male	10	5	0	0	1
%	63%	31%	0%	0%	6%
16 Female	9	7	0	0	0
%	56%	44%	0%	0%	0%
32 TOTAL	19	13	0	0	0
	59.38%	53.12%	0%	0%	6%

After the implementation of TILE activities as shown in Table 2, the posttest results showed improvement in learners' phonemic awareness performance. The increase in mean score indicates that learners benefited from the structured use of letter tiles and supplementary literacy activities such as interactive games, worksheets, spelling booklets, instructional videos, and guided reading activities.

The improvement suggests that the TILE Strategy provided learners with meaningful opportunities to connect sounds with letters through hands-on and multisensory experiences. The use of manipulatives allowed learners to visualize and physically construct words, making abstract phonemic concepts easier to understand.

Results showed improvement across all measured phonemic awareness indicators after learners were exposed to TILE Strategy activities. The greatest improvement was observed in areas involving **phoneme blending, segmentation, and word formation**, as learners were given repeated practice in manipulating letter tiles to create and read words.

The findings imply that the TILE Strategy effectively strengthened learners' understanding of the relationship between sounds and letters. Through continuous exposure to letter manipulation activities, learners gradually developed the ability to analyze sounds, combine phonemes, and decode unfamiliar words.

3.3 Comparison of Pretest and Posttest Results

Table 3: The comparative results between BOSY and EOSY and the percentage gained.

Reading Level	BOSY (Table 1) %	EOSY (Table 2) %	Percentage Gain
Reading at Grade Level	0.00%	59.38%	An increase from 0% at BOSY to 59.38% at EOSY (an improvement of 59.38 percentage points).
Transitioning Readers	6.45%	53.12%	723.57%
Developing Readers	6.45%	0.00%	-100.00%
High Emerging Readers	25.80%	0.00%	-100.00%
Low Emerging Readers	67.00%	3.13% (1/32×100)	-95.33%

4 DISCUSSION OF FINDINGS

The findings indicate a substantial improvement in the reading performance of the Grade 1 learners from BOSY to EOSY. At the beginning of the school year, **67%** of the learners were classified as **Low Emerging Readers**, while none were reading at grade level. By the end of the school year, **59.38%** of the learners had reached the **Reading at Grade Level** category, and the proportion of **Low Emerging Readers** decreased dramatically to **3.13%**, representing a **95.33% reduction**. Likewise, the percentage of **Transitioning Readers** increased from **6.45% to 53.12%**, reflecting a **723.57% gain**. These findings demonstrate a marked shift of learners from the lower reading proficiency levels to higher reading proficiency levels, suggesting that the intervention was highly effective in improving learners' reading abilities.

4.1 Summary of Findings

Results of the intervention demonstrated substantial improvement in the phonemic awareness skills of participating learners.

Comparison of pretest and posttest scores revealed consistent gains in learners' ability to:

- Identify beginning sounds
- Identify medial vowel sounds
- Identify ending sounds
- Blend phonemes
- Segment words into individual sounds
- Manipulate phonemes through substitution and deletion

Teacher observations also revealed qualitative improvements.

Learner Engagement

Throughout the intervention, learners became increasingly motivated to participate during literacy sessions. The use of colorful letter tiles transformed reading instruction into an enjoyable learning experience.

Confidence

Learners who initially hesitated to answer oral activities gradually demonstrated greater confidence in responding during phonemic awareness exercises.

Reading Readiness

Improved phonemic awareness enabled learners to decode unfamiliar words more accurately. Learners exhibited fewer decoding errors during guided reading activities and demonstrated greater independence in recognizing simple words.

Classroom Participation

Learners actively participated in collaborative activities and displayed sustained attention throughout intervention sessions.

The findings support the work of Ehri (2005), who emphasized that explicit phonemic awareness instruction facilitates word recognition and reading acquisition. Likewise, the National Institute of Child Health and Human Development Panel (2000) concluded that systematic phonemic awareness instruction significantly improves children's reading achievement.

Overall, Project TILES proved to be an effective literacy intervention that promoted active learning while improving essential pre-reading skills.

5 CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

- Project TILES significantly improved the phonemic awareness skills of participating Grade 1 learners.
- Learners developed stronger abilities in identifying, blending, segmenting, substituting, and manipulating phonemes.

- The use of manipulative letter tiles increased learner motivation, participation, and confidence during literacy instruction.
- Multisensory and learner-centered instructional strategies contributed to improved reading readiness.
- Project TILES is an effective, practical, and sustainable classroom intervention that can be integrated into the school's reading recovery initiatives and literacy programs.

Recommendations

In light of the findings, the researcher recommends the following:

- Continue implementing Project TILES as part of the school's Reading Intervention Program.
- Integrate letter tile activities into daily beginning reading instruction.
- Conduct Learning Action Cell (LAC) sessions to train teachers in implementing multisensory phonemic awareness strategies.
- Encourage parents to reinforce phonemic awareness activities at home.
- Replicate the study in other grade levels and schools to further validate the effectiveness of the intervention.
- Develop additional teacher-made instructional materials that complement Project TILES.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare no conflicts of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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