

Enhancing Analytical Reading Skills in Regional Dialects through the 5E Inquiry-Based Learning Approach and Thematic Storybooks among Sixth-Grade Students

Kupi Ausman¹, Pia Kaweechate^{2*}

¹Undergraduate Student, Department of Education (Elementary Education), Faculty of Education, Thaksin University, Songkhla

²Lecturer, Department of Education (Elementary Education), Faculty of Education, Thaksin University, Songkhla, Thailand

*Corresponding Author

DOI: <https://dx.doi.org/10.47772/IJRISS.2026.100300353>

Received: 23 March 2026; Accepted: 28 March 2026; Published: 08 April 2026

ABSTRACT

This study aimed to evaluate the effectiveness of the 5E inquiry-based learning approach integrated with thematic storybooks in enhancing the analytical reading skills of students regarding regional dialects. Specifically, the research sought to compare students' analytical reading proficiencies before and after the educational intervention and to investigate student satisfaction toward the implemented instructional model.

The research employed a quasi-experimental design, specifically a one-group pretest-posttest model. The sample consisted of 22 sixth-grade students from Thaweerat School, Hat Yai District, Songkhla Province, selected through purposive sampling during the second semester of the 2025 academic year. The research instruments included two 5E inquiry-based lesson plans integrated with thematic storybooks, totaling eight instructional hours. Data collection tools comprised an analytical reading skill assessment (20 multiple-choice and 10 subjective items) with an Item Objective Congruence (IOC) of 1.00, and a 5-point Likert scale satisfaction questionnaire. Statistical analysis was performed using mean (M), standard deviation ($S.D.$), and a dependent samples t -test.

The findings revealed that students exhibited significantly higher analytical reading skills in regional dialects after the intervention ($M = 26.45$, $S.D. = 1.83$) compared to the pretest ($M = 17.09$, $S.D. = 2.97$), with a statistical significance at the .05 level ($p < .001$). Furthermore, the students demonstrated the highest level of overall satisfaction with the 5E inquiry-based learning approach ($M = 4.87$, $S.D. = 0.24$). The innovative storybook media received the highest satisfaction ratings among the evaluated domains.

Conclusions: The integration of the 5E inquiry-based learning approach with thematic storybooks serves as a highly effective pedagogical strategy for elevating analytical reading competencies. This learner-centered framework encourages active knowledge construction and provides a robust model for educators seeking to enhance language instruction and curriculum development in regional linguistic contexts.

Keywords: Analytical reading skills, 5E inquiry-based learning, Thematic storybooks

INTRODUCTION

Language education serves as the cornerstone of national identity and cultural preservation, functioning as a vital tool for communication, information acquisition, and the development of critical and analytical thinking skills in a rapidly changing global landscape (Ministry of Education, 2008). In alignment with modern educational paradigms that emphasize learner-centered approaches, educators are tasked with designing strategic learning processes that maximize student potential. Elevating these teaching standards and integrating effective

assessment indicators are crucial drivers for high-quality curriculum development in schools (Pia K. et al., 2025). Central to this educational objective is reading comprehension, particularly analytical reading, which requires higher-order cognitive processes to decode, distinguish, and interpret texts logically (Mansethawit, 2011).

Furthermore, the foundational importance of cultivating students' reading, writing, and analytical thinking skills at the basic education level has been well documented in previous educational initiatives aimed at holistic student development (Pia K., 2020). Consequently, developing robust analytical reading skills remains a primary goal in basic education curricula, equipping students with the critical literacy necessary for academic success and practical application.

Despite these clear curricular goals, practical classroom observations and formative assessments reveal significant challenges in students' reading comprehension, specifically concerning regional dialects. Students frequently struggle to differentiate between regional dialect vocabulary and the standard national language. This linguistic gap, coupled with a lack of understanding of the sociocultural contexts embedded within regional dialects, leads to confusion in text interpretation. As a result, learners are often unable to accurately analyze the meaning of specific vocabulary or grasp the core narrative of reading passages. This phenomenon highlights a critical deficit in analytical reading skills, which are essential for processing and evaluating textual information systematically.

To address this pedagogical challenge, investigating effective instructional strategies is imperative. Inquiry-Based Learning, particularly the 5E instructional model—comprising Engagement, Exploration, Explanation, Elaboration, and Evaluation—has been widely recognized as a constructivist approach that promotes meaningful learning and enhances analytical thinking (Institute for the Promotion of Teaching Science and Technology, 2019). Furthermore, integrating customized literature, such as thematic storybooks, into the curriculum serves as a powerful catalyst for reading engagement. Storybooks offer straightforward narratives, accessible language, and clear messaging, making them highly effective educational tools. Previous empirical research demonstrates that utilizing contextualized storybooks significantly improves reading and spelling proficiencies while fostering positive student attitudes toward learning (Bunyasri, 2009). The synthesis of these concepts suggests that utilizing storybooks within an inquiry-based framework can effectively cultivate analytical reading competencies.

Recognizing the identified problem and the potential of these pedagogical tools, this study aims to enhance the analytical reading skills of sixth-grade students specifically in the context of regional dialects. The proposed solution involves the implementation of the 5E inquiry-based learning approach integrated with specially designed thematic storybooks. By comparing students' analytical reading proficiencies before and after the intervention, this research seeks to validate the efficacy of this instructional design. The findings are anticipated to provide valuable insights for educators in developing innovative educational strategies and learning materials that strengthen foundational reading skills for advanced academic pursuits.

Research Objectives

1. To compare the analytical reading skills in regional dialects of sixth-grade students before and after the implementation of the 5E inquiry-based learning approach integrated with thematic storybooks.
2. To investigate the satisfaction of sixth-grade students towards the 5E inquiry-based learning approach integrated with thematic storybooks aimed at enhancing analytical reading skills in regional dialects.

MATERIALS AND METHODS

Research Design

This study employed a quasi-experimental research design, specifically utilizing a one-group pretest-posttest design to evaluate the effectiveness of the educational intervention.

Participants

The participants consisted of 22 sixth-grade students from Thaweerat School, located in Hat Yai District, Songkhla Province. The sample was selected using purposive sampling during the second semester of the 2025 academic year. The selection criterion was based on intact classroom availability, as the participants were students directly under the researcher's instructional responsibility. This group was targeted to undergo the integrated learning intervention and subsequently evaluate their learning satisfaction.

Research Instruments

The research instruments developed and utilized in this study included instructional materials, a cognitive assessment, and a satisfaction survey. All instruments were subjected to rigorous peer review by a panel of three educational experts to ensure validity.

- Instructional Materials** The intervention was guided by two lesson plans based on the 5E inquiry-based learning model integrated with thematic storybooks. The implementation spanned a total of eight instructional hours. The expert panel evaluated the lesson plans for pedagogical alignment and appropriateness, rating them at the highest level of suitability.
- Analytical Reading Assessment** A comprehensive test was constructed to measure the students' analytical reading skills in regional dialects, aligning with specific curriculum indicators and learning objectives. The assessment comprised 20 four-option multiple-choice questions and 10 subjective (essay-type) questions. Content validity was established using the Item Objective Congruence (IOC) index. The expert evaluation yielded an IOC score of 1.00 for all items, indicating absolute congruence and confirming the instrument's readiness for data collection.
- Student Satisfaction Questionnaire** To gauge the students' attitudes towards the 5E inquiry-based learning approach and the thematic storybooks, a 15-item questionnaire utilizing a 5-point Likert scale was developed. The expert evaluation of this instrument resulted in IOC indices ranging from 0.66 to 1.00, verifying its acceptable validity for the study.

Research Conceptual Framework

This study defined the variables used in the investigation as follows:

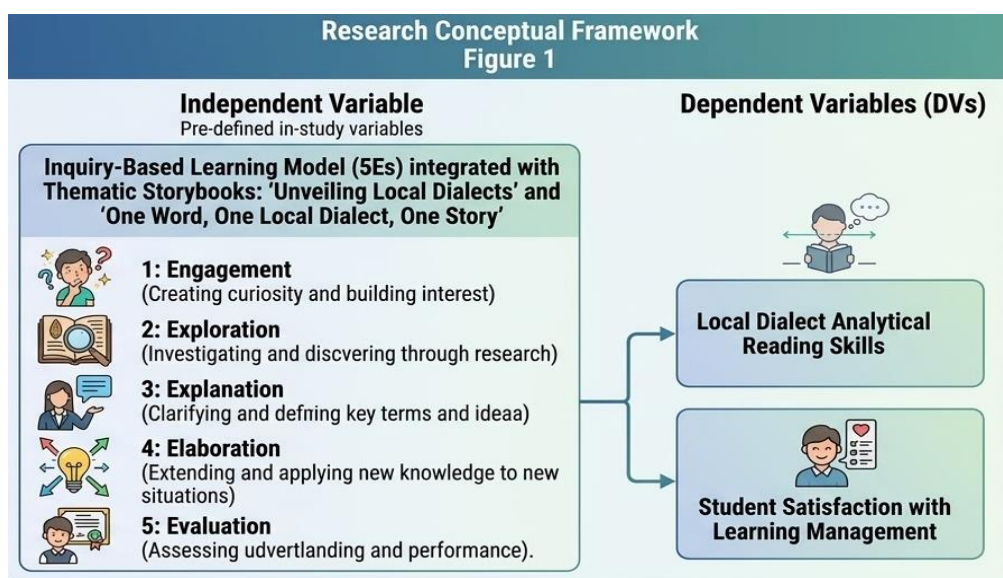


Figure 1 Research Conceptual Framework

Note: The researcher analyzed and created the content of this research conceptual framework, using Gemini (Version March 2026) as a tool to assist in generating the illustrative diagram for clearer presentation.

RESULTS

The data collected to evaluate the development of analytical reading skills in regional dialects were analyzed and divided into two main sections: the comparison of analytical reading skills before and after the intervention, and the assessment of student satisfaction.

Comparison of Analytical Reading Skills

A dependent samples t-test was conducted to determine the effectiveness of the 5E inquiry-based learning approach integrated with thematic storybooks on the students' analytical reading skills. As presented in Table 1, the analysis revealed a statistically significant increase in the analytical reading scores following the educational intervention. This indicates that the integrated learning approach successfully enhanced the students' abilities to analytically read and comprehend regional dialects.

Table 1 Comparison of Analytical Reading Skills Before and After the Intervention

Assessment Period	N	Total Score	M	S.D.	t	p
Pretest	22	30	17.09	2.97	12.28	< .001*
Posttest	22	30	26.45	1.83		

Note. The dependent samples t-test was used to compare the mean scores before and after the implementation of the 5E inquiry-based learning approach and thematic storybooks. $p < .05$.

Student Satisfaction with the Learning Management

Following the intervention, the students' satisfaction with the 5E inquiry-based learning approach and thematic storybooks was evaluated across four domains: learning content, learning activities, innovative storybook media, and measurement and evaluation.

The findings, detailed in Table 2, demonstrated that the overall student satisfaction was at the highest level. When examining the individual domains, the innovative storybook media received the highest mean score, followed by learning activities, learning content, and measurement and evaluation, respectively. All individual items across the four domains were rated at the highest level, reflecting a highly positive reception of the integrated instructional design.

Table 2 Student Satisfaction with the 5E Inquiry-Based Learning Approach and Thematic Storybooks

Evaluation Domains and Items	M	S.D.	Interpretation
Learning Content	4.80	0.41	Highest
1. Content aligns with analytical reading skill development.	4.74	0.45	Highest
2. Content is accurate and appropriate for the grade level.	4.83	0.39	Highest
3. Content facilitates the practice of analytical reading skills.	4.83	0.39	Highest
Learning Activities	4.96	0.14	Highest
4. Activities promote understanding and analytical reading.	4.96	0.21	Highest
5. Activities align with the stated learning objectives.	5.00	0.00	Highest

6. Activities encourage active student participation.	4.87	0.35	Highest
7. Activities are engaging, enjoyable, and interesting.	5.00	0.00	Highest
Innovative Storybook Media	4.98	0.11	Highest
8. Book 1 ('Unveiling Local Dialects') is engaging and concise.	4.96	0.21	Highest
9. Book 2 ('One Word, One Local Dialect, One Story') is engaging and concise.	5.00	0.00	Highest
10. The storybooks effectively develop analytical reading skills.	4.96	0.35	Highest
11. End-of-book questions and vocabulary sections stimulate thought.	5.00	0.00	Highest
12. The storybooks are modern and user-friendly.	5.00	0.00	Highest
Measurement and Evaluation	4.76	0.31	Highest
13. Assessment aligns with analytical reading skills.	4.52	0.52	Highest
14. Evaluation criteria and methods are clear and appropriate.	5.00	0.00	Highest
15. Assessment provides opportunities to demonstrate abilities and reflects development.	4.78	0.42	Highest
Overall Satisfaction	4.87	0.24	Highest

Note. Satisfaction was measured using a 5-point Likert scale. Interpretation is based on the highest level of satisfaction (Highest).

DISCUSSION

The findings revealed that the students' analytical reading skills in regional dialects significantly improved after the intervention ($p < .05$). This demonstrates that the integration of the 5E inquiry-based learning approach with thematic storybooks successfully and effectively enhances learners' analytical reading proficiencies. This success can be primarily attributed to the learner-centered nature of the instructional design. The 5E approach provided students with structured opportunities to actively participate in exploring, investigating, and independently constructing knowledge through the inquiry process. Consequently, students developed a profound understanding of the content, enabling them to apply this knowledge appropriately in analytical contexts. These outcomes align with the educational frameworks proposed by Khaemmanee (2021), who asserted that learner-centered environments emphasizing active knowledge construction are highly effective in fostering learners' cognitive processes and overall educational development.

The significant improvement in analytical reading skills can be primarily attributed to the structured cognitive scaffolding inherent in the 5E model. Specifically, the 'Exploration' and 'Explanation' phases actively bridged the linguistic gap between regional dialects and the standard national language, enabling students to deduce meanings through narrative context rather than rote memorization. This learner-centered environment, which emphasizes active knowledge construction, is highly effective in fostering learners' cognitive processes (Khaemmanee, 2021).

Furthermore, the utilization of thematic storybooks served as a crucial catalyst. While Promwong (2013) notes that aligned instructional media amplify learning efficiency, it is also highly plausible that the novelty of these localized storybooks contributed significantly to heightened student engagement. However, the exceptionally high satisfaction scores ($M=4.87, S.D.=0.24$) must be interpreted with caution. The dual role of the researcher as the classroom instructor may have introduced a social desirability bias, prompting students to report more

favorable attitudes. Despite this, the alignment of the instructional activities with higher-order thinking development (Sinthapanon, 2017) confirms the practical effectiveness of the intervention.

CONCLUSIONS

In conclusion, the implementation of the 5E inquiry-based learning approach integrated with thematic storybooks ('Unveiling Local Dialects' and 'One Word, One Local Dialect, One Story') constitutes a highly effective pedagogical strategy. It successfully elevates sixth-grade students' analytical reading skills concerning regional dialects, offering a robust and practical framework for educators to enhance language instruction and curriculum development in the future

Limitations Of The Study

Despite the positive outcomes, this study presents several limitations that must be acknowledged. First, the research employed a single-group quasi-experimental design without a control group, which inherently limits the internal validity and the ability to attribute the improvements solely to the educational intervention. Second, the sample size was relatively small ($N=22$) and selected via purposive sampling from a single institution, restricting the generalizability of the findings to broader educational contexts. Finally, the consistently highest-level ratings in the student satisfaction evaluation may indicate a potential response bias, such as social desirability bias, given that the participants were instructed directly by the researchers. Future studies should address these limitations by incorporating control groups and larger, randomized samples.

RECOMMENDATIONS

Recommendations for Educational Practice

1.1 Educators are encouraged to implement the 5E inquiry-based learning approach integrated with thematic storybooks (Unveiling Local Dialects and One Word, One Local Dialect, One Story) within language arts curricula to effectively elevate students' analytical reading proficiencies.

1.2 Educational institutions should actively support and promote the adoption of learner-centered instructional models among teachers. Providing resources for inquiry-based frameworks coupled with innovative educational media will continuously advance overall instructional quality.

1.3 Teachers should flexibly contextualize and adapt learning activities and instructional media to align with the specific demographic, content requirements, and grade levels of their students. This customization ensures optimal engagement and the appropriate scaffolding of analytical thinking skills.

Recommendations for Future Research

2.1 Future research should replicate this integrated instructional approach across diverse grade levels and distinct educational contexts to comparatively assess its efficacy in developing analytical reading skills among different student populations.

2.2 Subsequent studies should expand the scope of investigation to include additional dependent variables, such as critical thinking, broader analytical capabilities, or overall academic achievement, to provide a more comprehensive understanding of the intervention's multifaceted impacts.

2.3 Longitudinal studies are highly recommended to evaluate the long-term retention and sustainability of the acquired analytical reading skills over an extended period following the instructional intervention.

Declaration of Generative Ai and Ai-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used Gemini (Version March 2026) solely to assist in generating the illustrative diagram for the Research Conceptual Framework (Figure 1). After using this tool, the authors

reviewed and edited the content as needed and take full responsibility for the accuracy and originality of the publication's content.

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