

The Development of Learning Achievement in Analytical Reading through the Implementation of Question-Answer Relationship (QAR) Teaching Strategy among Fifth-Grade Elementary Students

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Abstract.

This classroom action research aimed to develop analytical reading learning achievement through the implementation of the Question–Answer Relationship (QAR) teaching strategy for fifth-grade elementary students. The objectives of the study were to enhance students’ analytical reading achievement in Thai language and to examine whether students’ learning achievement met the evaluation criterion of 60 percent. The target group consisted of 89 fifth-grade students studying at the Demonstration School of Suan Sunandha Rajabhat University (Elementary Division) in the academic year 2025, selected by purposive sampling.

The research instruments included (1) six lesson plans on analytical reading developed using the QAR teaching strategy and (2) an analytical reading achievement test consisting of 20 four-option multiple-choice items administered as pre-test and post-test. The data were analyzed using mean, percentage, and standard deviation to determine students’ analytical reading achievement levels, to compare learning achievement before and after the implementation of the QAR teaching strategy, and to examine students’ achievement in relation to the 60 percent evaluation criterion.

The results revealed that after learning through the QAR teaching strategy, students’ post-test scores in analytical reading were higher than their pre-test scores. In addition, the majority of students achieved scores that met or exceeded the evaluation criterion of 60 percent. These findings indicate that the implementation of the QAR teaching strategy effectively enhanced analytical reading learning achievement among fifth-grade elementary students.

Keywords: analytical reading, QAR strategy, learning achievement, Thai language, Grade 5 students

1. Introduction

Reading is a fundamental skill in primary education, as it supports language development, analytical thinking, and reasoning abilities. Analytical reading enables learners to comprehend texts deeply, identify main ideas, analyze relationships among concepts, and evaluate information logically. Recent studies indicate that analytical reading skills can be effectively developed through appropriate instructional strategies that guide students’ thinking processes (Rahmawati et al., 2024; Maphanao & Nakin, 2025).

Classroom practices show that many primary school students still experience difficulties in analytical reading. Although students can read texts accurately, they often struggle to interpret information, connect ideas, and provide reasoned responses, resulting in learning achievement below expected standards (Espiritu Bersamin et al., 2024). Similar issues have been reported in the Thai context, where students tend to rely on copying text or guessing answers due to a lack of clear reading strategies (Aukkarasupsakul & Kheannil, 2025).

The Question–Answer Relationship (QAR) instructional strategy addresses this issue by helping students classify questions based on answer sources and apply appropriate thinking processes. Therefore, this study applied the QAR strategy to enhance Grade 5 students’ analytical reading achievement by comparing learning outcomes before and after instruction and examining whether students met the 60 percent assessment criterion. The findings are expected to support students in effectively applying analytical reading skills to their learning and daily life.

1.1 Background of Analytical Reading in Primary Education

Analytical reading is a fundamental skill that plays an important role in students’ learning, particularly at the primary education level, where learners develop language abilities alongside analytical thinking and reasoning skills. Analytical reading enables students to understand texts deeply, analyze relationships among ideas, and evaluate key information systematically. According to the Basic Education Core Curriculum B.E. 2551, reading is a major component of Thai language learning, emphasizing the use of reading processes to construct knowledge, develop critical thinking, and apply understanding to problem-solving in daily life (Ministry of Education, 2008).

1.1.1 Problems of Analytical Reading Skills among Grade 5 Students

In actual classroom practice, many primary school students still encounter difficulties with analytical reading. While most students can read texts correctly, they often have trouble identifying key ideas, connecting information, or explaining their answers based on what they have read. As a result, their reading comprehension and overall learning achievement remain lower than expected (Espiritu Bersamin et al., 2024). Previous studies have also shown that students frequently struggle to process and interpret textual information when they lack appropriate reading strategies and instructional support (Kampylafka et al., 2023). These challenges suggest that students tend to focus on surface-level reading or simple recall rather than engaging in deeper analytical thinking, highlighting the need for instructional approaches that guide students’ thinking processes more clearly.

1.2 Research Objective

1. To develop Thai language learning achievement in analytical reading of Grade 5 students through the Question–Answer Relationship (QAR) teaching strategy to meet the criterion of 60 percent.
2. To compare the analytical reading achievement of Grade 5 students before and after the implementation of the Question–Answer Relationship (QAR) teaching strategy.
3. To examine the development of Grade 5 students’ ability to answer analytical questions before and after learning through the Question–Answer Relationship (QAR) teaching strategy.

2. Literature review

2.1 Concept of Analytical Reading

Analytical reading is an essential language skill for learners in the 21st century, as it is a reading process that emphasizes readers' ability to comprehend texts, analyze key ideas, distinguish facts from opinions, and logically connect information from the text with their prior knowledge or experiences. This process supports higher-order thinking skills and promotes meaningful learning (Ministry of Education, 2017). Reading is identified as a core component of Thai language learning, as stated in the learning standard T 1.1, which emphasizes that learners must be able to use reading processes to construct knowledge and ideas for decision-making and problem-solving in daily life. This reflects that reading is not merely the memorization of information, but rather a process that requires critical thinking, analysis, and evaluation of textual content.

In the context of the Demonstration School of Suan Sunandha Rajabhat University, research has shown that instructional approaches aimed at developing students' analytical thinking skills have a significant impact on their language abilities. A study on the development of analytical thinking skills among students at the Demonstration School of Suan Sunandha Rajabhat University found that learning activities emphasizing thinking processes and questioning strategies effectively enhanced students' ability to analyze content and articulate reasoning. As a result, students were able to improve their thinking skills, reasoning abilities, and overall quality of Thai language learning. Analytical reading is therefore a skill that can be developed through appropriate instructional practices, particularly those that emphasize questioning techniques, connecting information from texts, and logical reasoning, which effectively support the development of students' analytical reading skills (Charaslerdwong, 2024).

2.2 Concept of the Question–Answer Relationship (QAR) Instructional Strategy

The Question–Answer Relationship (QAR) instructional strategy is a teaching approach designed to help learners systematically understand the nature of questions and the sources of their answers. This strategy emphasizes encouraging learners to analyze questions before responding, enabling them to select appropriate thinking processes for each type of question. The QAR concept was developed by Raphael, who proposed that reading comprehension can be enhanced when learners are able to identify whether the answer to a question can be found directly in the text or must be derived from their prior knowledge (Raphael, 1986).

According to Raphael (1986), questions within the QAR framework can be classified into two main categories:

1. Questions for which answers can be found directly in the text.
2. Questions that require higher-order thinking processes, such as analysis, inference, or the integration of information from the text with learners' prior knowledge or experiences.

This classification of questions helps learners avoid responding through simple copying from the text or guessing. Instead, learners are guided to analyze the questions and determine appropriate sources of information for constructing their answers. As a result, reading becomes more meaningful, systematic, and cognitively engaging.

The Question–Answer Relationship (QAR) instructional strategy effectively improved the analytical reading achievement of Grade 5 students. After QAR-based instruction, students showed higher learning achievement and were able to meet the 60 percent evaluation criterion. This finding is consistent with previous research indicating that QAR-based instruction enhances students’ analytical reading skills (Aukkarasupsakul & Kheannil, 2025).

2.3 Related Studies

Phetngam (2021) studied the development of students’ analytical language skills at the Demonstration School of Suan Sunandha Rajabhat University. The results showed that structured instructional activities significantly enhanced students’ analytical performance, reflecting the effectiveness of learning management approaches that promote analytical thinking skills in language learning.

Panya and Chusanachoti (2023) reported that instruction integrating the Question–Answer Relationship (QAR) strategy improved students’ reading comprehension and their ability to interpret texts and respond to questions.

Lao-amnat (2024) found that an instructional model combining the Question–Answer Relationship (QAR) strategy with reading strategies enhanced students’ reading comprehension and supported the development of analytical reading skills.

Aukkarasupsakul and Kheannil (2025) revealed that QAR-based instructional materials significantly improved students’ analytical reading achievement and helped learners better understand question types and sources of answers.

Banpatathi et al. (2025) indicated that structured learning activities emphasizing guided thinking processes contributed to improvements in students’ reading comprehension and analytical thinking abilities.

3. Methodology

This study employed a classroom-based research design aimed at improving analytical reading achievement of Grade 5 students at the Demonstration School of Suan Sunandha Rajabhat University (Primary Section). The Question–Answer Relationship (QAR) teaching strategy was implemented as the instructional approach to enhance students’ analytical reading skills. The research procedures consisted of lesson plan implementation, data collection through pre-test and post-test, and analysis of students’ learning achievement.

3.1 Sample

The sample of this study consisted of 89 Grade 5 students from the Demonstration School of Suan Sunandha Rajabhat University (Primary Section) in the academic year 2025. The participants were selected using purposive sampling, as they were students taught by the researcher and were directly involved in the learning activities using the Question–Answer Relationship (QAR) instructional strategy.

3.2 Research Instruments

The research instruments used in this study consisted of the following:

- 1) Lesson Plans Using the Question–Answer Relationship (QAR) Strategy

Six lesson plans were developed to support Thai language instruction on analytical reading for Grade 5 students at the Demonstration School of Suan Sunandha Rajabhat University (Primary Section). The lesson plans were designed based on the Question–Answer Relationship (QAR) instructional strategy and implemented throughout the research period. The details of the lesson plans are as follows:

- Lesson Plan 1: Meaning and Importance of Analytical Reading
- Lesson Plan 2: Analytical Reading
- Lesson Plan 3: Application of the QAR Strategy
- Lesson Plan 4: Answering Analytical Questions from Texts Using the QAR Strategy
- Lesson Plan 5: Practice in Answering Questions from Texts Using the QAR Strategy
- Lesson Plan 6: Practice in Answering Questions from Texts Using the QAR Strategy

2) Achievement Test on Analytical Reading An achievement test on analytical reading in the Thai language subject was constructed by the researcher. The test was used as both a pre-test and a post-test and consisted of 20 multiple-choice items with four options for each question. The test was designed to measure students' learning achievement in analytical reading.

3) Try-out of the Achievement Test The achievement test was piloted with Grade 5 students at the Demonstration School of Suan Sunandha Rajabhat University (Primary Section) to examine the appropriateness of the test items in terms of content validity, language clarity, and level of difficulty before being used in the actual data collection.

3.3 Data Collection and Data Analysis

The procedures for data collection and data analysis were conducted as follows:

1) Pre-test Administration

Before the implementation of the instructional intervention, the researcher administered a pre-test on analytical reading achievement in the Thai language subject to the sample group. The pre-test was used to assess students' initial analytical reading ability prior to the experiment.

2) Implementation of the Instructional Intervention

The researcher conducted the teaching and learning activities using six lesson plans on analytical reading based on the Question–Answer Relationship (QAR) instructional strategy. The lesson plans were implemented according to the predetermined instructional schedule.

3) Post-test Administration

After the completion of the instructional intervention, the researcher administered a post-test on analytical reading achievement to the students. The post-test was the same test used as the pre-test in order to compare students' learning achievement before and after the implementation of the QAR teaching strategy.

4. Results

The research data were analyzed using mean scores and percentages to examine Grade 5 students' analytical reading achievement before and after the implementation of the Question–Answer Relationship (QAR) instructional strategy and to determine whether the achievement met the 60 percent evaluation criterion.

Pre-test Results of Analytical Reading Achievement Using the QAR Instructional Strategy

| Test | Number of Students | Full Score | Passed (>12) | Mean | S.D. | Percentage |
|----------|--------------------|------------|--------------|------|------|------------|
| Pre-test | 89 | 20 | 21 | 4.72 | 2.31 | 23.60 |

Table 1 shows that before the instructional intervention, students obtained a mean score of 4.72, equivalent to 23.60 percent, which was below the evaluation criterion. Only 21 out of 89 students passed the criterion, indicating a low level of analytical reading achievement prior to the implementation of the QAR strategy.

Comparison of Analytical Reading Achievement Before and After Using the QAR Instructional Strategy

| Test | Number of Students | Full Score | Passed (>12) | Mean | S.D. | Percentage |
|-----------|--------------------|------------|--------------|-------|------|------------|
| Pre-test | 89 | 20 | 21 | 4.72 | 2.31 | 23.60 |
| Post-test | 89 | 20 | 62 | 13.84 | 1.98 | 69.20 |

Table 2 indicates that after the implementation of the QAR instructional strategy, students' analytical reading achievement improved significantly. The mean score increased from 4.72 to 13.84, or 69.20 percent, which exceeded the evaluation criterion. The number of students who passed the criterion also increased from 21 to 62 students, demonstrating the effectiveness of the QAR instructional strategy in enhancing students' analytical reading achievement.

4.1 Students' Analytical Reading Achievement

The analysis of pre-test and post-test scores on analytical reading achievement of Grade 5 students at Suan Sunandha Rajabhat University Demonstration School (Primary Section) showed a clear improvement after the implementation of the Question–Answer Relationship (QAR) instructional strategy. The mean pre-test score was 4.72, while the mean post-test score increased to 13.84 out of a total score of 20.

In addition, the percentage of the mean score increased from 23.60 percent in the pre-test to 69.20 percent in the post-test, exceeding the evaluation criterion. These results indicate that the use of the QAR instructional strategy effectively enhanced students' analytical reading achievement.

4.2 Achievement Based on the 60 Percent Criterion

The results based on the 60 percent evaluation criterion indicated that, prior to the implementation of the Question–Answer Relationship (QAR) instructional strategy, only 21 out of 89 students met the criterion, reflecting a relatively low level of analytical reading achievement.

After the implementation of the QAR instructional strategy, the number of students who met the criterion increased to 62 out of 89 students, showing a substantial improvement. This finding demonstrates that the QAR instructional strategy effectively enabled the majority of

students to achieve the required level of analytical reading performance in accordance with the objectives of the study.

5. Conclusion

The findings of this classroom action research demonstrate that the Question–Answer Relationship (QAR) instructional strategy effectively enhanced the analytical reading achievement of Grade 5 students. The results indicate that guiding students to identify question types and appropriate sources of answers supported their analytical thinking during reading activities (Aukkarasupsakul & Kheannil, 2025). Furthermore, the improvement in students' reading comprehension and analytical performance is consistent with studies emphasizing the role of structured questioning and guided instructional strategies in reading development (Panya & Chusanachoti, 2023). These findings align with previous research showing that instructional models combining reading strategies can enhance students' analytical reading skills (Lao-amnat, 2024). Therefore, the QAR instructional strategy can be considered an effective approach for developing analytical reading skills at the primary education level.

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