The Impact of Reading Strategy Training on Junior High School Students' English Reading Proficiency

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[**Abstract**] In junior high school English teaching, cultivating reading proficiency is one of the core tasks. However, many students lack effective strategic guidance during the reading process, leading to low efficiency. Based on O'Malley and Chamot's taxonomy of learning strategies, this study systematically designed a reading strategy training program covering metacognitive, cognitive, and social/affective dimensions. A four-month empirical study was conducted with two parallel seventh-grade classes in a junior high school in Bozhou City, Anhui Province. Research instruments included a strategy use questionnaire, pre- and post-reading tests, and semi-structured interviews. The results indicated that after systematic training, the experimental class showed a significant increase in the frequency of using metacognitive, cognitive, and social/affective strategies ($p<0.05$). The experimental class's reading test scores were significantly higher than those of the control class ($p=0.039<0.05$), and the pass rate increased from 42.31% to 63.46%. Interview results further confirmed that strategy training effectively improved students' attitudes towards reading and enhanced their awareness of strategy use. This study verifies the effectiveness of systematic reading strategy training in junior high school English teaching and provides operational lesson references for frontline instruction.

[**Key words**] English reading strategies; metacognitive strategies; junior high school students; empirical study; reading proficiency

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1 Introduction

With the deepening of basic education curriculum reform, the goal of English reading instruction has shifted from the mere transmission of linguistic knowledge to the cultivation of comprehensive language application ability. Reading is not only a crucial avenue for acquiring information but also a key link in developing thinking skills and intercultural communicative competence. However, in actual junior high school English teaching, the phenomenon of "high input, low output" is prevalent. Although many students have mastered a large vocabulary and grammatical rules, they often exhibit slow reading speed, superficial comprehension, and a lack of ability to independently solve problems when faced with lengthy reading materials. Fundamentally, this stems from students' failure to master and flexibly apply effective reading strategies.

Extensive research both domestically and internationally indicates that a significant difference between successful and average learners is that the former can consciously select and employ appropriate learning strategies (O'Malley & Chamot, 1990). Scholars such as Pressley have pointed out that strategy training can significantly improve students' reading comprehension levels and academic performance. In China, scholars like Wen Qiufang and Cheng Xiaotang have also called for strengthened strategy guidance in English teaching to help students transition from "learning" to "learning how to learn". Although relevant research is abundant, at the junior high school level, more empirical support is needed on how to transform abstract strategic theories into specific, operational classroom teaching behaviors and verify their long-term effects in routine teaching.

This study aims to construct a systematic framework for junior high school English reading strategy training,

explore the specific pathways of integrating metacognitive, cognitive, and social/affective strategies into the three conventional stages of reading instruction (pre-reading, while-reading, and post-reading), and evaluate the practical impact of this training model on junior high school students' reading proficiency and strategy use habits through a combination of quantitative and qualitative methods. It is hoped that this will provide a scientific basis and practical paradigm for the reform of junior high school English reading instruction.

2 Theoretical foundation

2.1 Classification and connotation of learning strategies

This study primarily adopts the taxonomy of learning strategies proposed by O'Malley and Chamot (1990) based on the information processing model. This system categorizes learning strategies into three major types:

Metacognitive Strategies: These are high-level management strategies where learners plan, monitor, and evaluate their cognitive processes. In reading, these are manifested as clarifying reading purposes, predicting content, self-checking comprehension, adjusting reading speed, and reflecting after reading.

Cognitive Strategies: These are strategies learners use to directly process input information. They include predicting, skimming, scanning, guessing word meanings from context, inferencing, and confirming referential relationships.

Social/Affective Strategies: These are strategies learners use to facilitate learning by interacting with others or regulating their own emotions. Examples include cooperative discussion, seeking help from others, overcoming reading anxiety, and self-encouragement.

2.2 Theoretical basis for reading strategy training

Goodman's (1967) "psycholinguistic guessing game" theory posits that reading is an active process of constant prediction and verification. Carrell (1989) further pointed out that second language reading is not merely a language decoding process but an interaction between background knowledge and textual information. Based on this, reading strategy training should not be an isolated skill drill but should be embedded in authentic reading tasks. Research by Mokhtari and Reichard (2002) emphasizes that awakening strategic awareness and automating strategy use are the core goals of strategy training. Cohen (2011) proposed that effective strategy instruction should follow a cyclical model of "description-demonstration-practice-evaluation" to ensure that students not only "know" the strategies but can also "apply" them.

3 Research methodology

3.1 Research subjects

This study selected two parallel seventh-grade classes from a junior high school in Bozhou City, Anhui Province, as research subjects. The experimental class (EC) consisted of 52 students, and the control class (CC) had 53 students. There were no significant differences between the two classes in their English midterm exam scores and strategy use levels prior to the experiment, indicating comparability.

3.2 Research instruments

English Reading Strategy Use Questionnaire: Developed with reference to Oxford's (1990) SILL scale and Mokhtari and Reichard's (2002) MARSI scale. The questionnaire contains 28 items using a 5-point Likert scale (1 = never, 5 = always) and covers three dimensions: metacognitive, cognitive, and social/affective strategies. The questionnaire demonstrated good reliability and validity, with a Cronbach's α coefficient of 0.853 and a KMO value of 0.712.

Reading Tests: Two sets of pre- and post-tests of comparable difficulty were used. Each test consisted of 5 short passages with a total of 20 objective questions, with a full score of 40. The test items were designed to cover micro-skills such as identifying the main idea, understanding details, guessing word meanings, and making inferences.

Semi-structured Interview Outline: Interviews were conducted with 12 students of varying proficiency levels from the experimental class to understand their experiences with strategy use, changes in reading attitudes, and feedback on the training model.

3.3 Research procedure

The experiment lasted for 4 months (from March to June 2026) and was divided into three phases:

Preparation Phase (Weeks 1-2): A pre-test on reading and a pre-questionnaire on strategy use were administered to both classes. A strategy awareness-raising lecture was conducted in the experimental class to introduce the functions and values of various reading strategies.

Implementation Phase (Weeks 3-14): Strategy training was systematically integrated into the regular reading instruction of the experimental class. The control class followed a traditional teaching model without explicit strategy instruction.

Post-experiment Phase (Weeks 15-16): A post-test on reading and a post-questionnaire on strategy use were administered, followed by interviews with a selection of students.

4 Data collection and analysis

This study employed a mixed-methods approach, combining quantitative and qualitative data, to comprehensively analyze the impact of strategy training on junior high school students' English reading proficiency. For data processing, SPSS 26.0 software was used to conduct descriptive statistics, paired-samples t-tests, and independent-samples t-tests on the questionnaires and test scores to quantitatively evaluate the direct effects of the strategy training. Concurrently, the transcription and coding analysis of interview recordings were used to gain an in-depth understanding of the students' emotional experiences and cognitive development trajectories during the process of strategy use.

4.1 Research process and systematic design of strategy training

4.1.1 Systematic framework for strategy training

This study constructed a "Three-dimension and Three-stage" integrated training model. This model subdivides reading instruction into three consecutive phases: pre-reading, while-reading, and post-reading. In each phase, metacognitive, cognitive, and social/affective strategies are purposefully embedded. This closed-loop design aims to help students gradually master and internalize strategies at different stages of reading, achieving a transition from single-skill training to comprehensive strategic application, ultimately enhancing their ability to transfer strategies.

4.1.2 Classroom implementation pathway

Taking Unit 10 "Birthday Food around the World" from the PEP Grade 7, Book 2 textbook as an example, the specific implementation pathway is as follows:

In the pre-reading stage, the focus is on planning and prediction strategies. The teacher guides students to clarify the reading objective—"to identify the similarities and differences in birthday foods across different countries"—and to formulate a corresponding plan. Using the title, illustrations, and the first paragraph, students are encouraged to predict foods like cakes and noodles that might appear in the text, thereby activating their background schemata and establishing psychological expectations for the subsequent reading.

In the while-reading stage, the focus is on cognitive and monitoring strategies. First, students skim the text to verify their predictions and match the main ideas of paragraphs. Then, they scan the text to complete a detailed table of "Country-Food-Symbolism". For new words like "symbol" and the pronoun "they", the teacher guides students to guess their meanings and confirm their references using contextual clues. Simultaneously, by asking questions like "Why do people eat long noodles in China?", the teacher guides students to infer the cultural connotation of "long life". Throughout this process, the teacher continuously intervenes with monitoring strategies, asking students to self-question: "Did I understand this?" If they encounter comprehension barriers, they are prompted to immediately take remedial measures such as re-reading or checking for clarification.

In the post-reading stage, the focus is on evaluation and social/affective strategies. Students discuss in groups, "What is your favorite birthday food and why?", applying social strategies through interaction. Afterwards, they fill out a "Reading Reflection Card" to review the effectiveness of the strategies used and any difficulties encountered. For students struggling with reading, the teacher provides positive feedback and guides them to seek

help from peers to alleviate anxiety and enhance their self-efficacy.

4.2 Research analysis

4.2.1 Quantitative analysis of strategy use

Pre-test data showed that the overall mean score for strategy use in the experimental class was 2.436, indicating an "occasional use" level, with the metacognitive strategy mean being the lowest (2.373), suggesting a lack of self-monitoring awareness. After systematic training, post-test results showed a significant increase in the frequency of use for all three types of strategies. Paired-samples t-tests indicated that the differences between pre- and post-tests for metacognitive strategies ($t=-12.45$, $p<0.001$), cognitive strategies ($t=-10.88$, $p<0.001$), and social/affective strategies ($t=-8.32$, $p<0.001$) were all statistically significant. This confirms that systematic training effectively awakened students' strategic awareness, enabling them to shift from passive to active reading management.

4.2.2 Comparative analysis of reading scores

Post-test scores showed that the experimental class (EC) had a mean score of 25.731 ($SD=7.96$), which was significantly higher than the control class's (CC) mean of 22.189 ($SD=9.38$). An independent-samples t-test revealed a significant difference between the two classes ($t=2.008$, $p=0.039<0.05$). Furthermore, the pass rate in the experimental class increased from 42.31% to 63.46%, an increase of 21.15 percentage points, while the control class saw only a slight increase of 1.89 percentage points. This data strongly demonstrates that strategy training not only improved overall scores but also played a significant "safety net" role for low-to-average achieving students.

4.2.3 Qualitative analysis of interview results

The interview analysis distilled three core themes:

Reduced Anxiety: Students reported, "I used to be afraid when I saw long articles, but now I know how to read them step-by-step", indicating that emotional regulation strategies effectively alleviated reading anxiety.

Strategy Internalization: Students stated, "I subconsciously scan the title first when reading an article" and "When I encounter a word I don't know, I look at the context first", suggesting that cognitive and metacognitive strategies had transformed into conscious behaviors.

Cooperation Facilitation: Students believed that "group discussions allowed me to hear different ideas", confirming that social/affective strategies promoted cognitive processing through peer assistance.

5 Research conclusions and pedagogical implications

5.1 Research conclusions

5.1.1 Systematic strategy training enhances reading strategy use

This study confirms that systematic strategy training can significantly improve junior high school students' use of reading strategies. After receiving the "Three-dimension and Three-stage" integrated training, the experimental class students showed a significant increase in their use of metacognitive strategies ($p<0.001$). This indicates that through systematic instructional design, students can gradually master the ability to plan, monitor, and regulate their reading processes, achieving a transition from passive reception to active management. The concurrent improvement in cognitive and social/affective strategies validates the effectiveness of multi-dimensional strategy integration in promoting the comprehensive development of students' reading abilities.

5.1.2 Mechanism of strategy training's effect on reading scores

Strategy training has a significant effect on improving reading scores. The mechanism lies in the fact that strategies help students process information efficiently, reduce (ineffective re-reading), and correct comprehension deviations in a timely manner through self-monitoring. The data shows that the experimental class's post-test scores were significantly better than the control class's, and the pass rate increased substantially. This reflects that strategy training not only promoted the advancement of high-achieving students but also, through specific techniques like scanning and guessing word meanings, helped low-to-average achieving students overcome

obstacles related to new words and sentence structures, playing a crucial "safety net" role.

5.1.3 Strategy training improves the reading emotional experience

Strategy training significantly improved students' emotional experience with reading. The integration of social/affective strategies transformed reading into a socialized learning process. Interview results showed that emotional regulation strategies reduced students' anxiety, making them more confident when facing complex texts. Meanwhile, the cooperative discussion sessions enhanced students' sense of teamwork, helping them realize that reading is a task that can be accomplished together through mutual assistance, thereby significantly boosting their self-efficacy and learning motivation.

5.2 Pedagogical implications

5.2.1 Strategy instruction should be systematic and routine

Strategy instruction should not be a mere embellishment for demonstration classes but should become the "invisible skeleton" of routine teaching. Teachers should integrate the "Three-dimension and Three-stage" model into daily instruction, setting clear strategy training objectives for the pre-reading, while-reading, and post-reading phases. For example, guiding planning and prediction in the pre-reading stage, instructing on cognitive and monitoring strategies in the while-reading stage, and organizing evaluation and reflection in the post-reading stage. Only by routinizing strategy instruction can we ensure that students truly internalize and apply strategies flexibly.

5.2.2 Emphasize the cultivation of metacognitive strategies

Junior high school is a critical period for metacognitive development. Teachers should design reflective tasks such as "Reading Logs" and "Strategy Self-Checklists" to compel students to "stop and think about their thinking". By reviewing their strategy use and difficulties, students are prompted to actively examine their reading process. Sustained metacognitive training can not only improve scores but also cultivate autonomous learning abilities, laying a foundation for lifelong learning.

5.2.3 Provide explicit demonstration and scaffolding

Strategies are often implicit thought processes; teachers need to make them explicit through "think-aloud" protocols. In the initial stages of training, teachers should demonstrate how to apply strategies (e.g., guessing words from context) while reading, allowing students to "see" the expert's thought process. Subsequently, scaffolding should be gradually removed, encouraging students to try in group or independent practice and optimize through feedback, achieving a smooth transition from "supported" to "independent" learning.

5.2.4 Attend to affective factors and create a safe classroom

Reading instruction should foster a safe and inclusive classroom atmosphere. Teachers should allow students to make mistakes and encourage cooperation and mutual assistance. When students are frustrated, teachers should guide them in attribution analysis (e.g., improper method rather than lack of ability) instead of simply criticizing them. By using group tasks and positive feedback, teachers can alleviate student anxiety and protect their self-confidence, making positive emotional experiences an intrinsic motivation for promoting strategy learning and reading proficiency improvement.

6 Concluding remarks

This study confirms the positive value of reading strategy training in junior high school English teaching, but it also has certain limitations. First, the four-month experimental period is insufficient to observe the complete automation of strategy use, and the long-term effects require further tracking. Second, this study primarily focused on reading scores and strategy frequency, without deeply examining the micro-level correspondence between strategy use and specific question types (e.g., inference vs. detail questions). Future research could expand the sample size and combine it with cognitive neuroscience methods like eye-tracking to more precisely reveal the deep impact of strategy training on the cognitive processing of reading. Furthermore, how to utilize artificial intelligence technology to provide students with personalized strategy diagnosis and feedback is also a new direction worthy of

exploration.

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