



An Exploration of Developing Junior High School Students' Critical Thinking in English Reading Based on the 5E Instructional Model

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How to cite this paper: He, T. T. (2026). An Exploration of Developing Junior High School Students' Critical Thinking in English Reading Based on the 5E Instructional Model. *International Journal of Social Science, Education and Humanities*, 2(2), 10-17. ISSN Print: 3104-4239; ISSN Online: 3104-4247.

<https://doi.org/10.63313/IJSSEH.9031>

Published: 2026-04-30

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Abstract

English reading instruction serves as an important vehicle for cultivating junior high school students' core competencies. As a core component of the thinking quality within these competencies, critical thinking is key to developing students' independent thinking and rational judgment. The 5E teaching method, with its core stages of "Engage, Explore, Explain, Elaborate, and Evaluate," emphasizes student-centered, inquiry-oriented learning, which aligns closely with the need to cultivate critical thinking in junior high school English reading. This paper examines the current state of junior high school English reading instruction, explores the intrinsic connection between the 5E teaching method and the cultivation of critical thinking in English reading, proposes specific teaching implementation strategies, and verifies their effectiveness through teaching cases, providing practical references for cultivating critical thinking in junior high school English reading instruction.

Keywords

5E Teaching Method; Junior High School Students; English Reading; Critical Thinking

1. Introduction

The Compulsory Education English Curriculum Standards explicitly state that English instruction should focus on cultivating students' thinking quality, guiding them to develop critical thinking skills, enabling them to analyze, question, infer, and evaluate reading texts rather than passively accepting textual information. Currently, there are still many deficiencies in junior high school English reading instruction: some teachers primarily use models of "intensive knowledge explanation + mechanical drill exercises," overemphasizing reading accuracy while neglecting the development of students' thinking skills; students often remain in a

state of "passive reception," lacking the awareness and ability to actively explore, question, and reflect, making it difficult to deeply analyze the viewpoints, logic, and details of texts. The 5E teaching method, rooted in constructivist learning theory, emphasizes that students construct knowledge systems through active participation and independent inquiry, focusing on cognitive engagement and skill enhancement during the learning process. Applying the 5E teaching method to junior high school English reading instruction can break the limitations of traditional reading teaching. Through its five progressive stages, it guides students from "understanding the text" to "deeply interpreting the text," gradually developing critical thinking through inquiry, questioning, and transfer, achieving the synergistic improvement of "language ability" and "thinking quality."

2. Definition of Core Concepts

2.1. The 5E Teaching Method

The 5E teaching method is an inquiry-based teaching model proposed by the American Science Education Reform Committee. Its core consists of five interconnected and progressively structured stages: First, Engage: through situation creation and questioning, stimulate students' interest and participation, activating their prior knowledge and experience; Second, Explore: guide students to read independently and cooperatively explore, engaging in deep thinking around core questions and actively obtaining textual information; Third, Explain: students clearly express their understandings and viewpoints based on inquiry results, with the teacher providing guidance and supplementation to help students organize their cognitive logic; Fourth, Elaborate: guide students to apply the knowledge and thinking methods learned to new reading contexts, achieving knowledge transfer and ability enhancement; Fifth, Evaluate: through multiple evaluation methods, focus on students' inquiry processes and thinking performance, promoting self-reflection and improvement.

2.2. Critical Thinking in Junior High School English Reading

Critical thinking in junior high school English reading refers to students' ability to actively use their existing knowledge and experience to analyze, question, infer, judge, and evaluate the content, viewpoints, logic, and author's intention of a text during the reading process. Its core manifestations include: ability to identify facts versus opinions in a text, distinguishing objective information from subjective judgment; ability to question unreasonable aspects of a text and propose one's own insights; ability to infer implicit information from context and analyze the author's purpose and attitude; ability to rationally evaluate the value and significance of a text and form one's own judgments.

3. Alignment Between the 5E Teaching Method and Cultivation of Critical Thinking in Junior High School English Reading

The core concepts of the 5E teaching method are highly aligned with the needs of cultivating critical thinking in junior high school English reading. Its five interconnected stages provide a clear pathway for the development of critical thinking, achieving deep integration of the "inquiry process" and "thinking development." First, the "Engage" stage lays the foundation for cultivating critical thinking. Through situation creation and question-driven approaches, it stimulates students' reading interest, actively engaging them in the reading process, breaking the inertia of passive information reception, and preparing them for subsequent inquiry and questioning. Second, the "Explore" stage is the core of cultivating critical thinking. It guides students to read independently and discuss cooperatively, conducting in-depth inquiry around core questions in the text, encouraging students to actively identify and analyze problems, and cultivating their independent thinking ability. Third, the "Explain" stage promotes the expression of critical thinking. In expressing their viewpoints, students need to organize their thinking logic and justify their judgments, while listening to others' opinions, engaging in cognitive collisions, and gradually refining their own understanding. Furthermore, the "Elaborate" stage deepens critical thinking. By applying the thinking methods developed in reading to new texts, students further consolidate their critical thinking abilities, achieving the transition from "learning" to "learning how to learn." Finally, the "Evaluate" stage promotes reflection and improvement of critical thinking. Through multiple evaluations, students can reflect on their reading processes and thinking patterns, identify their shortcomings, and gradually enhance the accuracy and profundity of their critical thinking.

4. Teaching Implementation Strategies for Developing Critical Thinking in Junior High School English Reading Based on the 5E Teaching Method

Considering the actual characteristics of junior high school English reading instruction, targeted teaching implementation strategies are formulated around the five stages of the 5E teaching method, integrating the cultivation of critical thinking into the entire reading teaching process and achieving the synergistic advancement of language learning and thinking development.

4.1. Engage: Stimulate Interest, Activate Thinking, and Elicit Questioning

The core of this stage is to stimulate students' reading interest, activate their prior knowledge and experience, guide them to actively participate in the reading process, and initially form a sense of questioning. Teachers can create authentic situations related to the theme of the reading text, using questioning, topic discussions, etc., to

provoke students' thinking and questioning. In specific implementation, teachers can design inspiring and open-ended questions based on the text content, such as "Do you think the author's viewpoint is reasonable?" or "If it were you, would you have a different opinion?" guiding students to read with questions and stimulating their desire to inquire. At the same time, teachers can create relevant situations based on students' life experiences. For example, when reading a text about "natural disasters," teachers can relate to scenarios students may encounter, such as heavy rain or typhoons, prompting students to consider "Are the coping methods mentioned in the text suitable for our lives?" allowing students to actively generate questions within the situation, laying the foundation for subsequent inquiry.

4.2. Explore: Independent Reading, Cooperative Inquiry, In-depth Analysis

The Explore stage is key to cultivating students' critical thinking. Its core is to guide students to read independently, explore cooperatively, deeply analyze the text, identify problems within the text, and form their own preliminary judgments. Teachers should provide ample time for independent reading, guiding students to use reading strategies such as skimming, scanning, and intensive reading to obtain textual information and organize textual logic. Based on independent reading, organize students to engage in group cooperative inquiry around preset core questions, such as "What is the core argument of the text? How does the author support it?" "Are there any unreasonable details in the text?" "What is the author's attitude and emotion?" Through discussion and communication, encourage students to boldly express their views, question others' opinions, and deepen their understanding of the text through cognitive collision. Teachers may provide appropriate guidance but should not give direct answers, focusing instead on students' inquiry processes and thinking methods, cultivating their independent thinking and questioning abilities.

4.3. Explain: Express Opinions, Discern Logic, Organize Cognition

The core of the Explain stage is to guide students to clearly express their inquiry results and viewpoints, discern the logical relationships within the text, organize their own cognition, and further refine their critical thinking. After group inquiry, organize each group to present and exchange their findings, with representatives sharing their understanding, questions, and judgments about the text. During the presentation process, teachers guide other students to listen attentively, question and supplement the presented content, such as "Why do you think this detail is unreasonable?" "What is the basis for your reasoning?" At the same time, teachers help students distinguish between facts and opinions, objectivity and subjectivity, based on their expressions, guiding them to standardize the expression of their thinking processes, enhancing the logical coherence and accuracy of their thinking.

Additionally, teachers can provide appropriate explanations for key or difficult points in the text, helping students deepen their understanding and preparing them for subsequent transfer and application.

4.4. Elaborate: Expand and Extend, Apply Knowledge, Deepen Thinking

The core of the Elaborate stage is to guide students to apply the critical thinking methods developed in reading to new reading contexts, achieving knowledge transfer and ability enhancement. Teachers can select extended texts related in theme and of appropriate difficulty to the reading text, guiding students to conduct in-depth interpretation using the reading strategies and thinking methods learned in the lesson. For example, after reading a text on "environmental protection," select another extended text on "waste sorting," guiding students to analyze the text's viewpoints and logic, question the reasonableness of the suggestions in the text, and propose their own improvement suggestions based on their life experiences. At the same time, design open-ended tasks, such as "Based on the two texts, share your views on environmental protection," allowing students to further consolidate their critical thinking skills and achieve deeper and broader thinking.

4.5. Evaluate: Multiple Evaluations, Reflection and Improvement, Enhance Ability

In classroom practice, the teacher designs a simple critical thinking evaluation rubric in advance with detailed scoring criteria. After students complete their inquiry-based presentations, they first conduct self-assessment, reflecting on their own performance in reading: whether they actively participated in text exploration, whether they dared to raise questions, whether their viewpoints were evidence-based, and whether their thinking was one-sided. Subsequently, peer assessment is carried out, where group members comment on each other's critical thinking strengths and weaknesses to learn from one another. Finally, the teacher gives a summative evaluation, affirming students' reasonable questioning and diverse thinking, while providing targeted corrections to problems such as deviating from the text, subjective assumptions, and one-sided judgments, guiding students to interpret the text objectively and dialectically. At the same time, the evaluation process is not the end of the lesson. The teacher guides students to record their own thinking weaknesses and organize them into reading reflection notes, grounding the reflective outcomes of critical thinking. This helps students continuously improve their thinking styles in subsequent reading learning, truly achieving the goal of promoting learning and thinking through assessment, so that critical thinking skills can advance steadily through ongoing reflection.

5. Teaching Case Analysis

To verify the effectiveness of using the 5E teaching method to develop critical

thinking in junior high school English reading, this paper conducts a teaching practice using the reading text "How One Girl Saved Many Lives" from Unit 5, Section B of the Grade 8 textbook (People's Education Press). This text is a key piece in the new textbook, telling the true story of 10-year-old British girl Tilly Smith, who, before the 2004 Indian Ocean tsunami, used knowledge from her geography class to recognize tsunami warning signs, successfully persuading others to evacuate and saving over 100 lives. It aligns well with the unit theme of "natural disasters," facilitating the design of inquiry-based questions and the cultivation of students' critical thinking. The implementation process is as follows:

(I) Engage: Stimulate Interest and Elicit Questioning

The teacher creates a situation: "Natural disasters are terrible, but sometimes a small action or a piece of knowledge can save many lives. Today we will read a true story about a 10-year-old girl who saved over 100 lives in a tsunami. Do you think a little girl can really stop a disaster? What do you think she did to save people?" guiding students to discuss the theme of "young hero saves lives," stimulating their reading interest and desire to inquire. At the same time, the teacher poses questioning prompts: "Will the girl's discovery be noticed by others at first? What details in the story may show her courage and wisdom?" guiding students to read with questions, activating their thinking, and actively considering the logic and details behind the story.

(II) Explore: Independent Reading and Cooperative Inquiry

Students read the text independently, using skimming strategies to identify the core narrative: Tilly notices anomalies on the beach → remembers knowledge about tsunamis from geography class → persuades her family and a security guard → successfully evacuates people and avoids casualties. They use intensive reading strategies to circle key details, such as the unusual wave phenomena Tilly observed (thick foam, receding waves not returning), her family's reactions, and the security guard's actions. Subsequently, group cooperative inquiry is conducted around the following questions: 1. What strange things did Tilly notice on the beach? 2. Why could Tilly recognize the warning signs of a tsunami? 3. Do you think Tilly's family and the security guard made the right choice at first? 4. What can we learn from Tilly's experience about dealing with natural disasters? During group discussions, students actively question and think deeply, raising many valuable questions: "Why didn't Tilly's family believe her at first? Was it reasonable for them to ignore a 10-year-old girl's warning?" "If the security guard didn't take Tilly's words seriously, what would happen?" "Could Tilly save more people if she used a better way to persuade others?" Through cognitive collision, they deepen their understanding of the text and cultivate questioning and analytical abilities.

(III) Explain: Express Opinions and Discern Logic

Each group sends a representative to share their findings, expressing their understanding, questions, and judgments about the text. One group suggests: "We

think it was unreasonable for Tilly's family to ignore her warning, because even though she was a child, her discovery was based on the knowledge from geography class. They should have listened to her carefully." Another group adds: "Maybe Tilly's family thought the strange waves were just a normal natural phenomenon, so they didn't take it seriously. But Tilly's persistence was very important—she refused to give up, which finally made her father alert the security guard."The teacher guides students to discern the logical relationships within the text, distinguishing between "facts" (Tilly noticed wave anomalies; the tsunami caused heavy casualties) and "opinions" (evaluations of the family's and security guard's actions), helping them organize their thinking logic, standardize the expression of their views and reasoning bases, and enhance the coherence and accuracy of their thinking. At the same time, using key points from the text, the teacher guides students to analyze Tilly's "wisdom" and "courage," deepening their understanding of themes such as "knowledge changes fate" and "respond calmly to disasters."

(IV) Elaborate: Expand and Extend, Apply Knowledge

The teacher provides an extended text, "A Boy's Smart Response to a Flood," which tells the story of a boy who uses his knowledge to save himself and help others during a flood. Students are guided to apply the thinking methods learned in this lesson to analyze key details in the text, question unreasonable aspects, evaluate the boy's actions, and propose specific suggestions for dealing with natural disasters based on their own life experiences. While reading the extended text, students actively use the "analysis-questioning-inference-evaluation" thinking model, further consolidating their critical thinking skills and achieving transfer of knowledge and thinking.

(V) Evaluate: Multiple Evaluations, Reflection and Improvement

A combination of teacher evaluation, student self-evaluation, and group peer evaluation is adopted, focusing on students' reading processes, questioning ability, expression of opinions, reasoning logic, and other aspects. The evaluation focuses on critical thinking performance, such as "whether they actively question the behavior of characters in the text," "whether they can reasonably infer based on textual details," and "whether they can clearly express their evaluations and opinions." Students use the evaluation rubric to reflect on their shortcomings during the reading process, such as "I didn't deeply question the reasonableness of the family ignoring Tilly's warning" or "My reasoning lacked support from textual details," and propose improvement measures. Through evaluation, students further clarify the key points of critical thinking cultivation and enhance their thinking abilities. Teaching practice shows that using the 5E teaching method with the new textbook text "How One Girl Saved Many Lives" for English reading instruction effectively stimulates students' reading interest, guides them to actively inquire, question, and reflect, significantly improves their critical thinking skills, and simultaneously promotes the synergistic enhancement of their English reading

ability, language expression ability, and core competencies. The evaluation content should focus on students' critical thinking performance, such as whether they can actively question the text, clearly express their views, conduct reasonable reasoning and judgment, and make rational evaluations based on the text. Teachers can design targeted evaluation rubrics with clear criteria, enabling students to clearly understand their strengths and weaknesses. At the same time, guide students to engage in self-reflection, summarizing their thinking pitfalls during the reading process and proposing improvement measures; in group peer evaluation, encourage students to learn from each other and promote mutual progress, collectively enhancing critical thinking skills.

6. Conclusion and Outlook

With its inquiry-based, progressive, and student-centered characteristics, the 5E teaching method provides an effective teaching pathway for cultivating critical thinking in junior high school English reading. By integrating the cultivation of critical thinking into the entire process of English reading instruction through the five stages of the 5E teaching method, it is possible to break the limitations of traditional reading teaching, guide students from "passive reception" to "active inquiry," gradually develop their abilities to analyze, question, infer, and evaluate, and achieve the synergistic development of "language ability" and "thinking quality." However, this study has certain limitations: the scope is narrow, as only a single reading text was used for practice; the duration is short, and the long-term effects on cultivating students' critical thinking have not been fully verified. In the future, the research scope can be expanded by selecting reading texts of different themes and genres for teaching practice; the research duration can be extended to track the developmental process of students' critical thinking and continuously optimize teaching strategies. Additionally, multimedia teaching, project-based learning, and other approaches can be integrated to enrich the implementation forms of the 5E teaching method, further enhancing the effectiveness of cultivating critical thinking in junior high school English reading and providing stronger support for core competency teaching in junior high school English.

References

- [1] Ministry of Education of the People's Republic of China. (2022). *Compulsory Education English Curriculum Standards (2022 Edition)*. Beijing: Beijing Normal University Press.
- [2] Wang, L. (2021). Application of the 5E Teaching Method in Junior High School English Reading Instruction. *English Teachers*, (12), 112-115.
- [3] Li, J. (2020). Cultivation of Critical Thinking in Junior High School English Reading Instruction Oriented by Core Competencies. *Basic Education Research*, (8), 76-77.
- [4] Zhang, M. (2022). Application of Inquiry-Based Teaching Model in Cultivating Critical Thinking in Junior High School English Reading. *Campus English*, (15), 189-190.