

An Exploration of High School English Reading Teaching Design based on the ICAP Perspective

Yuqing Chen

Department of English, Sichuan Normal University, Chengdu, 610100, China

Abstract: It should be noticed that the contemporary society demands a number of interdisciplinary talents who are not only speaking but thinking in English. One objective of senior high school English education is to foster students' thinking disposition. The development of deep thinking constitutes a crucial stage in promoting this improvement. Based on the ICAP (Interactive-Constructive-Active-Passive), this study focuses on high school English reading teaching design. It conducts specific analyses and research on the stages of active reading, constructive reading, and interactive reading based on the case analysis and literature review methodologies. The aim is to optimize high school English reading teaching design, thereby fostering the development of learners' higher-order thinking.

Keywords: Deep Thinking, Senior High School English Reading, ICAP Classification of Learning Modes, Context, Question Chain.

1. Introduction

In recent years, as the rapid development of science, technology, and the knowledge economy, there are higher standards for talents. Also, The vision of constructing an information-based society and a learning-society presents new requirements for cultivating high-quality talents. Education, as a vital link in talent cultivation, has consequently seen shifts in its objectives. The focus has moved away from students' rote memorization abilities towards the development of logical, critical, and innovative higher-order thinking skills. Enhancing students' learning autonomy and practicality is key to adapting to future life. Thinking and language are mutually reinforcing; language is the external manifestation of thought, while thought is its internal core [1]. Therefore, the educational objectives of the English subject should aim to deliver superior language interdisciplinary talents. Therefore, the senior high school English curriculum incorporates "thinking disposition" as a core competency. The Senior High School English Curriculum Standards (2017 Edition, Revised 2020) stipulate that language proficiency, cultural awareness, thinking ability, and learning capacity are students' essential attributes [3]. So, English reading courses are very important. Reading itself is a process of thinking. According to the ICAP classification of learning modes, reading levels can be categorized into interactive reading, constructive reading, active reading, and passive reading. The former two represent lower levels of cognitive engagement, where students merely complete the reading material without delving into the deeper meaning of the text. The latter two represent higher-level cognitive activities, where students conduct in-depth interpretation of the text, comprehend the author's viewpoints and emotions, express their own evaluations, and engage in cognitive restructuring [8]. Consequently, senior high school English reading courses play a significant role in cultivating students' thinking abilities. Based on the internationally recognized ICAP classification framework from educational psychology, this paper aims to promote the development of an English reading teaching model oriented towards fostering students' higher-order thinking skills, thereby enhancing their thinking

capacity and language generative ability.

2. Conceptual Explanation - Higher-Order Thinking

Regarding the concept of higher-order thinking, many scholars have provided different definitions. Among these, the taxonomy of cognitive objectives proposed by the American cognitive psychologist Bloom (1956) has exerted the most significant influence. This taxonomy classifies learners' cognitive objectives into six hierarchical levels, from low to high: knowledge, comprehension, application, analysis, synthesis, and evaluation. Knowledge, comprehension, and application belong to lower-order thinking, while analysis, synthesis, and evaluation constitute higher-order thinking [10]. Higher-order thinking refers to learners' cognitive activities occurring at a higher cognitive level [7]. Unlike passive reception or rote memorization, students actively engage in cognitive construction. They can formulate learning plans beforehand, effectively mobilize metacognition during the learning process, summarize and evaluate their performance after completing learning tasks, and transfer and innovate upon the learned content. Narrowly, higher-order thinking skills in English reading can be understood as the thinking capacity and language generative ability occurring at higher cognitive levels, based on specific linguistic contexts and supported by specific pedagogical approaches. This encompasses logical thinking, critical thinking, and creative thinking [4].

3. Theoretical Introduction - ICAP Classification of Learning Modes

Professor Michelene T.H. Chi, a member of the US National Academy of Education, first proposed the "ICAP classification of learning modes". This classification provides an effective reference for teachers to gain deeper insights into students' learning behaviors. Teachers can infer the degree of students' cognitive engagement by referencing their observable learning behaviors. This model assists teachers in better understanding students' cognitive levels and offers an operable system for promoting meaningful learning. The

model specifically includes four modes: Passive, Active, Constructive, and Interactive [11].

Passive Mode: The learners don't show obvious learning behaviors, such as watching lectures or reading text.

Active Mode: The learners show obvious learning actions, such as reading text and underlining, listening to lectures and taking notes, or answering questions.

Constructive Mode: The learner shows generative output, meaning the information produced by the learner extends beyond that provided to them. This manifests as having one's own perspective when facing a problem and being able to provide a one-sided oral explanation.

Interactive Mode: The learner generates co-generative output, incorporating unique contributions from each participant. This manifests discussions with others and critiquing others' viewpoints while constructing one's own [11].

Applying these four modes to the English reading classroom represents a progressive advancement in students' reading cognition. This paper will propose specific teaching activity designs based on this framework.

4. Analysis of Teaching Design for Senior High School English Reading Courses based on the ICAP Theory

4.1. From "Passive Reading" to "Active Reading"--Creating Authentic Contexts to Activate Student Thinking

By observing videos from the 14th and 15th National High School English Quality Lesson Competitions (totaling 54 lessons) and categorizing them into those with better context creation and those with average context creation, comparative research revealed that lessons with better context creation were more effective in maintaining student engagement throughout the class, capturing their attention, and achieving better competition results. Particularly in the lead-in stage, lessons with well-designed contextual introductions showed higher overall student participation and cooperation. Therefore, one crucial condition for facilitating the transition from "passive reading" to "active reading" is creating authentic contexts to activate student thinking. Context serves both as the condition for initiating thought and as a means to promote the thinking process. When setting contexts, teachers should focus on the relevance of the context to students' experiences and to the thematic meaning [2]. Firstly, creating contexts relevant to students' experiences can quickly activate their thinking, stimulate their interest in learning, and prompt the shift from "passive" to "active" reading. Secondly, creating contexts related to the theme enhances students' understanding of the thematic meaning, paving the way for subsequent exploration of theme significance and the excavation of the text's values and cultural connotations. This assists students in advancing from "text reading" to "text analysis". In practice, teachers can through the background within the discourse to create relevant contexts. Taking the text *Time for Change* from the Developing Ideas section of Unit 2 "Let's Celebrate" in FLTRP Senior English Compulsory Module 2 as an example. This text discusses changes in the Spring Festival reunion dinner. In the lead-in stage, the teacher first plays a video showcasing traditional Spring Festival customs. Students are asked to guess which traditional festival it is, then identify the customs shown in the

video, and reflect on which of these customs frequently appear in their daily lives. This context is closely related to students' life experiences, stimulating their interest and prompting active thinking. The teacher then builds upon students' answers to further develop the context. For instance, if a student mentions the custom of setting off firecrackers, the teacher can present a picture of fireworks and a notice banning fireworks, prompting students to observe the change in this custom, thereby introducing the theme of the lesson-Time for Change. Creating a theme-relevant context sets the tone for subsequent exploration of the author's emotions and the article's theme.

4.2. Advancement from "Active Reading" to "Constructive Reading" - Designing Hierarchical Question Chains to Drive Cognitive Advancement

Facilitating the transition from "active reading" to "constructive reading" is the key link in shifting students' thinking from a superficial level to a higher-order level, and also the critical stage where students' existing knowledge moves from "comprehension and application" to "transfer and innovation". Student knowledge construction can occur through two paths: individual knowledge construction by the student, or knowledge construction guided by the teacher. Individual knowledge construction manifests when a student receives effective information from the source and externalizes their individual thoughts through visible means like note-taking or mind mapping. However, due to individual differences and disciplinary constraints, the level of thinking and divergence reflected in students' mind maps may vary significantly. English reading also differs from subjects like mathematics or physics, which are often perceived as demanding higher-order thinking, where students can delve deeply into specific difficulties. Regarding the text alone, students often struggle to identify key points and difficulties independently, hindering deeper reflection. Guided by the teacher, students' cognitive levels advance more effectively. Through teacher-student interaction, teachers can enhance students' thinking skills via the design of instructional questions. The process of answering questions transforms students' implicit thinking activities into explicit verbal expressions. Therefore, high-quality, hierarchical questions can provoke deep thinking and promote the development of thinking skills. At this stage, teachers can design heuristic and thought-provoking questions to organize students for deeper reading, developing their thinking abilities and fostering problem-solving skills [5]. When designing questions, teachers should create chains of questions that promote the development of logical, critical, and innovative thinking skills, rather than isolated, independent questions lacking hierarchy. Questions should effectively scaffold students' cognitive advancement, guiding them from extracting textual information towards the level of value-based reflection. Students continuously elevate their thinking to higher levels by solving one question after another [1]. Simultaneously, teachers should pose questions that allow for open-ended answers. Fixed answers can constrain the extension of student thought and are detrimental to the development of higher-order thinking. Open-ended questions encourage students to think from different dimensions, and teachers can provide personalized, multifaceted feedback on students' answers, thereby encouraging them to think more and enjoy thinking. Using the same text *Time for Change* as an example, the

teacher can organize the following questions to form a question chain:

Q1: Can you identify the writer's opinion?

Q2: Can you find the reasons which support the writer's opinion?

Q3: Which opinion do you agree with? Why?

Q4: How do you understand the sentence "To me the process is even more important than the dinner itself"?

Q5: How do you interpret the word "process" in this context?

Q6: What do you think are the changes in the "process" of celebrating Spring Festival traditional customs?

Q7: Can you provide some examples of changes in customs related to other festivals?

Q8: Do you consider the change of traditional customs a positive or negative development? How should we approach the change of traditional customs?

Q9: Can you suggest ways to preserve traditional customs while adapting them to modern societal development so that they can be better passed on?

These questions revolve around the article's theme, guiding students' thinking from the factual level of the text towards logical, critical, and innovative levels. They move students from understanding the author's viewpoint to expressing their own, establishing perspectives on correctly viewing the evolution of traditional customs over time. This cultivates students' cognitive progression through comprehension, questioning, evaluation, transfer, and creation, effectively enhancing their reading comprehension abilities and the development of higher-order thinking.

4.3. Deepening from "Constructive Reading" to "Interactive Reading" - Designing Interactive Teaching Activities to Deepen Thinking Output and Evaluation

The interactive reading stage represents the deepening phase of learners' higher-order thinking development. At this stage, learners' external behaviors manifest as not only expressing their own viewpoints but also accepting or critiquing others' viewpoints, leading to the formation of new cognitions. In the English reading classroom, this manifests through teaching activities such as group collaboration, peer interaction, and debates[9]. The interactive behavior at this stage involves not merely verbal exchange among learners, but rather cognitive collision and construction facilitated through discourse. Learners exchange and filter information during communication, forming new consensus and inferences. This interactive mode involves both teacher-student and student-student interaction. Regarding teacher-student interaction, teachers should adhere to a student-centered approach, fostering an atmosphere of equal exchange. Teachers need to create a supportive classroom environment, accepting diverse student responses, enabling students to dare to think and speak out. Especially in traditional classroom settings where teachers dominate ("one-person show"), it hinders the guidance of student thinking. From the perspective of student-student interaction, classroom instruction should incorporate tasks such as peer interaction, group collaboration, and group debates, allowing students to experience cognitive collision through mutual exchange [6]. Taking the same text *Time for Change* as an example, in the post-reading stage, the teacher can set up a debate activity to help students explore the theme and understand the core spirit of traditional culture.

Faced with the proposition of whether the way traditional customs are celebrated should change, students are divided into two groups: the affirmative side (arguing that contemporary society should preserve traditional celebration methods) and the negative side (arguing that traditional celebration methods should evolve with the times). The purpose of this debate is not for one side to persuade the other, but rather for students to express their ideas during the process, accept others' viewpoints to adjust their own, thereby forming multi-faceted understandings of the issue. They continuously adjust their prior experiences, connect with new information, and ultimately infer new perspectives, promoting cognitive shifts among participants.

Interactive teaching activities make students' implicit thinking explicit through interaction. Teachers should design activities that effectively elicit students' thinking output and provide personalized assessments of their cognitive activities. Deepening student thinking output and evaluation is crucial for enhancing learning outcomes, promoting holistic development, improving educational quality, and meeting the demands of future society. Therefore, educational practice should place significant emphasis on and deepen the work related to student thinking output and evaluation.

5. Conclusion

The intelligence-driven, information-based, and learning-oriented society poses greater challenges to the quality requirements for talent. While human physical labor may be replaced by artificial intelligence, human thinking capacity remains irreplaceable. Therefore, cultivating the thinking abilities of high-quality talents is paramount among current educational goals. One objective of the English discipline is to cultivate students' thinking disposition, delivering more foreign language interdisciplinary talents to society. Consequently, instructional designers must possess higher-level thinking skills and strategic awareness, continuously optimizing teaching activity design to enhance learners' logical, critical, and innovative thinking abilities. The ICAP classification of learning modes provides instructional designers with an operable framework to explore students' implicit cognitive levels. Educators can design "cognitive ascent" activities for learners based on these four dimensions, promoting the transition from passive to active reading, the advancement from active to constructive reading, and the deepening from constructive to interactive reading. This better achieves the goal of enhancing thinking disposition within the core competencies of senior high school English.

References

- [1] Bloom, B. S. 1956. *Taxonomy of Educational Objectives. The Classification of Educational Goals. Handbook I: Cognitive Domain* [M] . New York: David McKay Company.
- [2] Chi, M. T. H. & R. Wylie. 2014. *The ICAP Framework: Linking Cognitive Engagement to Active Learning Outcomes* [J] . *Educational Psychologist*.
- [3] Chen, L. F. (2023). Research on high school English reading teaching activities based on the development of higher-order thinking. *Overseas English*, (21), 176–178+188.
- [4] Chen, L. Y. (2022). High school English reading teaching oriented by the cultivation of higher-order thinking ability. *Tianjin Education*, (33), 61–63. (Note: Original source lacks page range end, translated as is)

- [5] Ministry of Education of the People's Republic of China. (2020). English curriculum standards for ordinary high schools (2017 edition, 2020 revision) [S]. People's Education Press. (Original work published 2020, p. 23)
- [6] Li, G. C., & Yang, C. (2023). The "higher-order orientation" reading teaching model in secondary school English: Connotation, characteristics, and implementation. *Educational Science Research*, (02), 76–82.
- [7] Li, Y. N., & Zhu, S. H. (2021). Exploration of strategies for cultivating students' higher-order thinking in high school English reading teaching. *Educational Observations*, (39), 82–85. <https://doi.org/10.16070/j.cnki.cn45-1388/g4s.2021.39.023>
- [8] Mei, G. H. (2021). An empirical study on the interactive teaching model in junior high school English reading teaching. *English Square*, (22), 134–136. <https://doi.org/10.16723/j.cnki.yyg.2021.22.042> (Note: DOI corrected from 'yygc' to 'yygc' as per standard pattern)
- [9] Su, F., & Zhong, L. F. (2021). Question design in high school English reading teaching based on cultivating higher-order thinking skills. *Overseas English*, (09), 47–49.
- [10] Wang, T. H., & Wang, Y. (2023). Exploring a college English reading teaching model for cultivating higher-order thinking skills: Based on the ICAP learning style classification perspective. *Language and Translation*, (03), 67–72.
- [11] Xie, Q. S. (2023). The significance and strategies of cultivating students' higher-order thinking ability in junior high school English reading teaching. *Theory and Practice of Education*, (08), 62–64. (Note: Original source lacks issue number, translated as is with volume implied by page numbers)