

Research on the Cultivation of Senior High Students' Logical Thinking Ability in English Reading based on Thematic Context

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Abstract

This paper investigated the current situation of senior high school students' logical thinking ability and its integration with English reading teaching based on the thematic context by using interview and classroom teaching observation. And the purpose is to investigate the effects of teaching English reading with thematic context on students' development of logical thinking ability and to analyze the problems and results for developing students' logical thinking ability in reading classes, so as to provide effective benefits for the development of students' logical thinking ability at the high school level. The research indicates that: 1) high school English reading teaching based on thematic context inquiry has a significant contribution to the development of students' logical thinking ability. 2) high school English reading classroom should be designed with thematic context inquiry as the main line and it needs to plan activities to develop students' logical thinking ability as the focus. In general, the development of students' logical thinking ability can enhance the effectiveness of students' reading, and this kind of reading teaching improvement is valuable for the research.

Keywords

Thematic Context; Senior High English Reading; Logical Thinking Ability.

1. Introduction

The English Curriculum Standards for General High Schools (2017 edition)[1]. states that teachers should actively explore effective ways of teaching and learning, practice a thematic meaning-led view of English learning activities, and implement the goal of developing students' core English subject literacy. The curriculum goal of the English subject is to develop students' core literacy in English, that is, to develop students' language ability, cultural awareness, thinking quality and learning ability. Logical thinking ability has long been neglected in previous English teaching, but in the latest revision of the new curriculum, it is clearly proposed as one of the four components of English subject core literacy, which means that it is a universal requirement for all students. English reading has also become an important way for students to develop their thinking quality. As a key stage for students to learn English and improve their English learning ability, high school is crucial for laying the foundation for lifelong English learning, cultivating a broad international perspective, and improving intercultural communication skills. High school English reading is the process of dialogue between students, teachers and texts, the process of cultivating students' reading strategies, developing cultural awareness, and the process of improving comprehensive language skills.

However, influenced by traditional teaching models and assessment methods, etc., the English reading that exists today suffers from the shallow reading teaching of language teaching fragmentation, shallow learning activities, labeling of topic meaning, single teaching assessment, and lack of learning resources, and such reading teaching cannot be called real reading teaching, and there is still a big gap from the goal of reading literacy (Wang qiang 2017)[2]. While the Ministry of Education clearly takes the cultivation of logical thinking ability

as one of the important goals of English teaching in high school, logical thinking is the thinking process of revealing the essence of things through concepts, judgments and logical reasoning, which can guide students to analyze, judge, reason and other logical thinking activities in reading and improve their reading comprehension ability, and texts of different genres in reading through the characteristics of different things, the characteristics of the subject matter, different processes of development, etc. It can achieve the goal of students' logical thinking skills training, in turn, the development of students' logical thinking ability can enhance the effectiveness of students' reading, and this kind of reading teaching improvement is valuable for the research.

2. Methodology

This section introduces the design of this research including research aim, research subjects, research instruments, and research procedures.

2.1. Research Aim

The purpose of this study is to investigate the current situation of developing students' logical thinking ability through English reading teaching based on thematic context, and to analyze the problems and results for developing students' logical thinking ability in reading classes, so as to provide effective benefits for the development of students' thinking ability at the high school level. The author expects to analyze the current situation of developing logical thinking in high school English reading teaching and to identify the problems of developing logical thinking in high school English reading teaching mainly through reading classroom observation and interviews, in order to propose teaching strategies that can develop logical thinking ability. The purpose is to provide a realistic basis for proposing teaching strategies that can develop logical thinking skills. Specifically:

- 1) how well are students' logical thinking skills being developed in English reading classrooms?
- 2) What is the specific situation in the development of students' logical thinking sub-competencies?
- 3) what are the factors that affect the development of students' logical thinking ability?

2.2. Research Subjects

In this study, English teachers in the senior class of A High School in NanChong were selected for interviewers and classroom observations. 11 classes and 3 English teachers in the senior class of A High School had a total of 8 English lessons a week.

According to the content of the textbook unit, the class types can be divided into listening, grammar, reading, and writing classes. In this study, we mainly investigated the reading class type. The English textbook of Middle School A is the New Standard for High School English, and the teachers' teaching of the reading class is based on the textbook, and the reading content is appropriately expanded and supplemented with the unit theme.

2.3. Research Instruments

This investigation is based on high school English reading instruction and English reading based on thematic contexts, and focuses on how teachers develop students' thinking skills in their instructional design.

1) Interview:

First, the survey was conducted through interviews with teachers to find out how teachers understand and use thematic contexts in reading teaching, how they understand and develop logical thinking skills, and how teachers develop students' logical thinking skills in their instructional design; second, the survey investigated whether and how teachers use thematic contexts, whether they have instructional design and implementation for developing students'

logical thinking ability, what thinking skills they can develop in their instructional design, and how they develop students' logical thinking ability.

In order to further investigate teachers' basic knowledge and attention to logical thinking ability, it provides the specific ways of cultivating them in teaching practice and the factors influencing the cultivation of logical thinking from teachers' perspective. The questions were asked in the following 3 dimensions:

Table 1. Interview outline sheet

Dimensions	Questions
Teachers' perceptions of logic	What do teachers consider to be logical thinking? What are some examples of good thinking that students demonstrate in reading?
	Do teachers think it is feasible to develop logical thinking through reading?
Teachers' development of students' logical thinking ability	How do teachers typically develop logical thinking ability in reading teaching ?
Factors affecting the development of students' logical thinking	What do teachers think are the factors that affect the development of students' logical thinking ability in current reading teaching?

2) Classroom observation:

Through classroom observations, it can be investigated whether and how teachers use thematic contexts, whether they have an instructional design and implementation for developing students' logical thinking ability, whether they can develop students' logical thinking ability in their instructional design, and how to develop students' logical thinking ability. The high school English reading based on logical thinking development should be investigated from the real classroom teaching to find out how the implementation status of the development actually is. Using the LICC model combined with the high school English reading teaching strategy is helpful for the targeting logical thinking development (You yun, 2018) [14], and the author intends to observe the reading teaching classroom for logical thinking development from one teaching steps: after reading, and four elements of teaching strategy, i.e., teaching objectives, learning situation analysis, genre of discourse, and teaching activity design.

First, the classroom observation point of the student dimension was the achievement of instructional goals. The goal attainment was used to understand how well the logical thinking objectives were developed in the actual teaching. Second, the classroom observation point of the teacher dimension is whether the teaching activities.

The second observation point of the teacher dimension is whether the teaching activities are reasonable and in accordance with the sequence of students' thinking development. Third, the development and utilization of teaching resources is a teacher's disciplinary literacy, and teaching resources here mainly refer to reading discourse, so the author focused the observation point of curriculum resources on the discourse processing of teaching materials (adding, deleting, changing, and combining). Fourth, in the classroom culture dimension, the main observation point is set as students' classroom participation, so as to understand whether teachers conduct effective learning analysis and pay attention to the needs of different students. Classroom teaching consists of "Learning", "Instruction", "Curriculum", and "Culture". "The LICC paradigm represents a deep understanding of classroom constructs. The in-depth analysis of these four elements represents the LICC paradigm's deep understanding of classroom constructs (Xu Xiuru. Yokohama, 2006) [15]. Each dimension is divided into five perspectives, and different perspectives have different points of view (as shown in the table below).

Table 2. LICC model classroom observation dimension table

Dimension	Perspective
Student learning	Preparation, listening, interaction, autonomy, achievement
Teacher teaching	Circumstance,presentation,dialogue,instruction, resourcefulness
Nature of the curriculum	Goals, content, implementation, evaluation, resources
Classroom culture	Reflective, democratic, creative, caring, special qualities

2.4. Research Procedures

The process of this investigation was divided into three stages. First, the author intentionally chose five English reading classes in Secondary School A. The author mainly observed the teaching of English reading classes in the first year of high school. The main observations were the teachers' implementation of thematic contexts, the teaching design and implementation of developing students' logical thinking skills, and the problems that existed, etc.

We also actively participate in the group lesson preparation meetings of the teaching and research group, and use our cell phones to record videos and use our record books to take notes on the lessons and collect reading teaching cases. Secondly, according to the interview outline the author made, it can choose to interview three English teachers in the first year of high school to understand teachers' understanding of thematic contexts and logical thinking ability, their emphasis on the development of logical thinking skills, and how to implement the teaching design of developing students' logical thinking skills in the context of thematic contexts, and recorded the content of the interviews through audio recordings and transcripts for subsequent Analysis. Finally, through the collection of the results of the classroom observations and interviews, the author will describe whether teachers can develop students' logical thinking ability in reading classes, and also describe the teachers' use of logical thinking ability in teaching and the implementation of the instructional design for developing logical thinking ability, and explore the ways to develop students' logical thinking ability in the use of thematic contexts, so as to propose the corresponding instructional design and implementation for developing logical thinking ability. The instructional design and implementation of the development of logical thinking skills will be discussed.

3. Conclusion

The purpose of this study is to investigate the effects of teaching English reading with thematic context on students' development of logical thinking ability. By specifying three research questions at the beginning of the research design and using research tools such as the interview method and classroom observation in the research process based on the research questions, the main findings of the study are stated below:

First, high school English reading teaching based on thematic context inquiry has a significant contribution to the development of students' logical thinking ability. The interviews also showed that after the teaching intervention, the teachers were positive about the development of students' own logical thinking skills through understanding, and their thinking habits changed from passive to active. They were able to consciously analyze the logical structure of the text when reading the discourse, clarify the referential relationships of important pronouns, actively pay attention to the logical relationship words appearing in the text, analyze the author's viewpoint and attitude and find the basis for making judgments, and their interest in reading increased.

Second, high school English reading classroom should be designed with thematic context inquiry as the main line and activities to develop students' logical thinking ability as the grasp and focus. The researcher gradually clarified the relationship between thematic context inquiry activities and the development of logical thinking ability in the course of the study. Thematic context inquiry is the most important element in reading teaching and is the main line of the whole teaching design. Teachers can design a series of teaching activities that guide students to understand the discourse, train their thinking and express their opinions, so that students can learn knowledge, train skills and develop thinking in the process of exploring the thematic meaning and finally understand the thematic meaning of the discourse.

Finally, due to the limitations of time, research conditions and the author's ability, this study has achieved some results but also has some shortcomings. Due to time and objective constraints, a total of 3 teachers from one grade and the students were selected as the study sample, the sample was relatively small. In order to make the experiment play a more important role in teaching practice, the research must be carried out in a wider range, so as to improve the external validity of the experiment.

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