

The Application of “Problem Chain” Teaching Mode in Senior High School English Reading Teaching

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Abstract

Among the five language skills of listening, speaking, reading, writing and viewing, reading as the basis for developing students' comprehensive language ability, has become one of the focuses in English class. The depth of students' understanding of the topic and the context in reading class has a direct impact on their thinking development and the effectiveness of their language learning. In addition, the ultimate goal of reading instruction is to train students to become efficient and independent readers. There are many ways to achieve this goal and one of them is the application of problem chain. Based on the existing problems of question design in current reading teaching, this paper will introduce the model of problem chain and its types. In addition, this paper will analyze the design strategies of problem chain to discuss the application of it in senior high English reading teaching activities, so as to improve the effectiveness of high school English reading instruction.

Keywords

Problem chain, English teaching, reading teaching

1. Introduction

Reading instruction is a crucial component in English curriculum teaching system, and at the same time, an important element of enhancing students' comprehensive language ability (Chen Weibing & Shen Huadong, 2018). Students need to engage in a number of thinking tasks including analysis, reasoning, generalization and evaluation to deal with the information of texts when they are reading, so how teachers design questions based on the reading text plays a key role in the cultivation of students' thinking quality. As a link between classroom reading activities, classroom questions are important means for teachers to guide students to interact with the text. And the purpose of questioning should not be limited to assess students' learning outcomes, but should be more concerned with the breadth and depth of students' thinking engagement in the learning process. According to Robert (2014), he said “How to make instruction attractive for students is the most important issue teachers should concern. The most effective strategy is to design teaching activities around questions. And students will be prepared for questioning and actively participate in instructional activities”. Thus, it seems essential to effectively design questions when teaching reading. Based on this, in order to improve the effectiveness of question chain in high school English reading instruction, the author will start from the problems of question design existing in current reading teaching, and then discuss the application of question chain in reading instrument based on the types and design principles of problem chain.

2. Problems of Question Design in Current Reading Teaching

2.1 Single Problem Setting—Lack of Consciousness of Thinking Cultivation

Currently, the majority of English teachers are accustomed to designing and employing closed-ended questions in their lessons. In these lessons which lead by close questions, students cannot expand their thinking and those questions are only intended to assist students in overcoming specific difficulties in the text. The teaching vision is restricted to the text's surface level, satisfying students' superficial understanding of the text but failing to help them deduce the deeper meaning of the text. Students can respond to the questions by just a little consideration or even by quickly skimming the material. Besides, the answers of these close questions are usually set by the teacher already and don't have flexibility. When confronted with such questions, students' imagination is constrained and has a low level of engagement in their thinking, which makes it difficult to expand their minds and limits the development of thinking quality.

2.2 Uneven Proportion of Problem Setting—Lack of Overall Awareness

In reading instruction, teachers often spend too much time on explaining the meaning of words and phrases, dwelling on the details of the text and asking fragmented questions about the text that lack of overall awareness (Chen Sheng, 2017). In the process of reading the text, many teachers only pay attention to the superficial information conveyed by the text, but ignore the logical and emotional connection between context which results in the questions designed for the text have no relevance to each other. In this way, the information extracted by students is fragmented, and the main and minor points are unclear. What's more, students' ability to perceive, understand and appreciate the text at a macro level cannot be developed. In addition, as well as adhering to the principles of from easy to difficult and from shallow to deep, the design of reading questions should also take into account students' cognitive rules and the logical order of growth. However, teachers often design problems that lack of hierarchy and coherence, and the ratio of display, reference and assessment questions is seriously out of balance. There are usually too many display questions and fewer reference and assessment questions which have relatively higher involvement in thinking activities, leading students to only skim the surface of the questions and don't think about it deeply.

2.3 Ignoring the Questioning Process—Hinder the Development of Critical Thinking

Innovation begins with a question, and asking questions is actually a process of active thinking. Many teachers mistakenly believe that English as a foreign language, it's enough for students to understand the text and get the correct information. Due to this one-sided perception, numerous opportunities to encourage students to think critically are lost, and a substantial amount of reading materials that are beneficial to the development of critical thinking are not fully and effectively used, which affect the development of students' critical thinking. Moreover, although many teachers will design a variety of post-reading activities at the end of text interpretation, the quality of those questions presented in post-reading session vary greatly and students' responses are not satisfactory. Most of the questions lack relevance between the output content and the thematic content and target language in the input of reading teaching. Students can answer the given questions with their original language knowledge and superficial information of the text. Not only does the output content not reflect the application of the target language and the deepening of the thematic content, but also doesn't reflect the participation of thinking activities, thus resulting in the designed questions failing to achieve the purpose of testing students' reading effectiveness and their mastery of the target language (Zhang Huimin, 2018).

In conclusion, there are still many problems in the design of questions in reading instruction at present. The teaching mode of "problem chain" can effectively solve these problems. And the new curriculum standard points out that "Teachers should treat the cultivation of students' learning ability as an important goal of teaching, create favorable conditions for students to develop their learning ability in the teaching process, help students learn how to choose, judge and monitor themselves in the process of learning English, and cultivate students' ability of independent learning, cooperative learning and inquiry-based learning." In the process of teaching, problem chain can create a thinking environment for students and guide them to actively explore, thus achieving the transformation from learning knowledge to improving competence. In addition, the use of question chains in reading teaching is also a practical need for teaching. In recent years, the main idea questions and reasoning and judgment questions occupy a certain proportion of the questions in the college entrance examination. The problem chain provides a grip and direction for answering these questions (Pei Song, 2011). If the teacher can set up a problem chain along the author's thought and guide students to predict information and decipher along the question chain one by one, turning the question chain into an information chain, then the problems will be solved easily.

3. The Overview and Definition of Problem Chain

The "problem chain" teaching model is a teaching process in which the teacher takes "problems" as the main line and guides students to find problems - solve them - find them again until all the problems to be solved in the lesson are solved (Wang Houxiong, 2010). The essence of this model is that the teacher arranges the teaching contents in each problem in a hierarchical way, and forms a systematic problem chain with each problem closely related according to the teaching logic of the class. Students then use individual independent solutions or cooperative learning methods to solve each problem in the problem chain under the careful guidance of the teacher, so as to master the knowledge and improve the ability to investigate and solve problems. And there are five main types of problem chain teaching models (Wang Houxiong, 2010):

1) Lead-in problem chain: a series of questions designed by teachers to introduce new knowledge to smoothly present the subsequent teaching content, which focuses on either arousing students' strong desire to learn new knowledge or simply attracting students' attention and facilitating the unfolding of classroom topics.

2) Diagnostic problem chain: a problem chain which is carefully designed around the "three points" (key points, difficult points and doubtful points) in the teaching content. Its aim at leading students to acquire knowledge and skills through making mistakes, pointing out mistakes and correcting them.

3) Progressive problem chain: a series of progressive question sets designed according to the structure of knowledge points and students' thinking styles which is more suitable for questions with certain difficulties.

4) Conclusive problem chain: it's a series problem chain which is designed to evoke knowledge recall and form systematic knowledge structures when conducting classroom teaching and unit summaries

5) Inquiry-based problem chain: the main body of the design of the inquiry-based problem chain is students, namely, students discover the questions independently, and the teacher assists from the side, expanding the questions discovered by the students into a question chain (Zhang Huimin, 2018).

Pei Song (2011) divides the "problem chain" teaching model into two processes: the design process and the implementation process. The design process is done independently by the teacher and is divided into three steps: 1) sort out the clues of the text; 2) list the concept map; 3) set up the problem chain. The implementation process requires teachers and students to work together and is in the opposite order of the design process: 1) display the problem chain; 2) list the concept map; 3) sort out the clues of the article, grasp the structure of the article and experience the emotion of the article. In other words, the teacher first shows students the interlocking questions in the "problem chain" designed during the design process before and during the reading to stimulate students to think actively about the questions, promote students' deeper understanding of the text content, and develop students' independent problem-solving skills. The teacher then guides students to make a concept map based on their understanding of the text after reading, so as to deepen their understanding of the reading material as a whole. Finally, the teacher leads students to summarize the text together to strengthen their understanding of the structure of the discourse.

4. Design Strategies of Problem Chain applied in Senior High English Teaching

4.1 Systematicness

How to grasp the subject content of text is the key to the success of teaching. The question design that clearly points to the text theme and highlights the important and difficult points of the text plays a crucial role in reading teaching. In reading instruction, teachers should design effective problem chain according to the characteristics of text genre and focus on the main line and overall structure of the article, so as to improve students' perception of the connotation of the text (Yang Pingping, 2017). In the reading class based on holistic design, students can improve themselves and develop the ability to acquire new knowledge.

In addition, when designing the problem chain, teachers should systematically consider the gradient of problem difficulty in the problem chain, pay attention to the slope and depth between problems, and ensure that the difficulty coefficient between problems is on a steady rise. Specifically, there are three points should be noticed: 1) the design of the problem chain should be from shallow to deep, from easy to difficult, from known to unknown. Teachers should design problems which at moderate difficulty according to the zone of proximal development of students. 2) The problems in the problem chain should conform to Bloom's cognitive education objective classification, and gradually transition from low-order thinking problems of memory and cognition to higher-order thinking problems of analysis and understanding, comprehensive application, appreciation and evaluation. 3) In stratified teaching, all students should be able to answer the knowing and grasping questions in the problem chain. Application and analytical questions should be able to be answered by intermediate students. Comprehensive and evaluative questions should allow a small number of students to answer by themselves or a large number of students to answer through group work.

4.2 Directivity

Firstly, the design of problem chain should consider the directivity of the problems, that is, the teaching goal to be realized. Usually, the final teaching goal of the problem chain points to three aspects: the key and difficult points of teaching and the cultivation of students' thinking. When designing the problem chain, teachers should first read the texts of the whole textbook, accurately grasp the idea and conception of the article based on the teaching objectives and clearly figure out the teaching focus to avoid the blindness and randomness in teaching. Difficulties in teaching materials are often obstacles for students to master knowledge and understand content. The design of problem chain based on difficulties can help students to break through difficulties by focusing on key points (Guo Yifei, 2019).

In addition, in the process of designing the problem chain, teachers should combine the age characteristics and current cognitive level of students, and fully take into account the principal position of students and consider from the perspective of students. In order to guide students to think positively, teachers should not only take into account the difficulty of problems, but also create an imbalance in students' psychology through the chain of problems. Teachers need to lay down steps between the students' current level and the required level of the content, carefully design questions that fit the students' zone of proximal development and guide the students to understand the text from the surface to the inside, from the shallow to the deep.

4.3 Problems Worthy of Study

When designing the question chain, teachers should ensure that the questions in the problem chain are good ones worth studying. And good questions have the following six characteristics: 1) Pertinent: good questions should be related to teaching objectives and students' actual situation. Teachers should build scaffolding around the core problem of the problem chain, and master the essence of the questions to raise questions to cognitive error; 2) Challenging: good questions should not be easy for the student to answer, but require the student to find the answer through some effort; 3) Interesting: good questions should be started from a new angle, so that the questions are stimulating enough to stimulate students' interest in learning; 4) Relative: good questions should be able to connect with students' real life, arouse students' resonance, and awaken students' emotional experience; 5) Generative: good questions can enable students to find new problems in the process of solving problems, trigger students to think and create, and promote students to form a new understanding of knowledge; 6) Open: good questions should pay attention to the angle and depth, and do not set a single answer. It should inspire students from different angles so that they can master multiple solutions to the same question, which not only broadens their thinking, but also cultivates their divergent thinking ability (Hu Qingfang, 2015).

5. Conclusion

Problem chain can stimulate students' enthusiasm for exploration by creating problem situations and atmosphere to stimulate their thinking. It is the artery that maintains students' interest in English reading and plays a positive auxiliary role in the teaching of English reading in senior high. Teachers should delve into the teaching materials and carefully design the problem chain that conforms to the cognitive law of students, and lead the teaching with the problem chain to stimulate students' interest, develop their thinking ability, and realize effective teaching. At the same time, teachers should think from multiple dimensions, design problem chains with a balanced proportion of difficulty and ease, and try their best to involve students' thinking, so as to build a platform for students to better interpret the text and improve their English learning ability.

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