

# Study on Teacher Questioning in Senior High School English Reading Class Based on the Development of Thinking quality

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## Abstract

Teacher questioning is the most effective and intuitive English teaching tool preferred by teachers, and the quality of teacher questioning design directly affects their classroom effectiveness. The National Curriculum for Common Senior High Schools (2017 Edition) (herein after referred to as Curriculum Standard 2017) emphasizes the purpose of the high school English curriculum is to develop students' English key competence, including thinking quality, which is closely related to reading teaching. Therefore, based on the Bloom's taxonomy of educational objectives and relevant researches on teaching questioning, this paper attempts to read and sort out relevant literatures to find out two main current problems of teacher questioning in senior high school English reading class based on the development of thinking quality. Then, this paper also puts forward the corresponding solutions so as to optimize teacher questioning in reading class and achieve the teaching objective of developing students' thinking quality.

## Keywords

Teacher Questioning; Reading Class; Thinking Quality.

## 1. Introduction

The National Curriculum for Common Senior High Schools (2017 Edition) released by the Ministry of Education emphasizes the development of English key competence, which is to develop students' language ability, cultural awareness, thinking quality and learning ability (the Ministry of Education, 2018). And reading can help high school students broaden their thinking and further promote language learning in their thinking development. In the reading classroom, teacher questioning is the most frequent and effective way of teacher-student interaction, and the level and depth of teachers' questions determine the development of students' thinking.

Thus, this paper intends to investigate teacher questioning in English reading class of senior high school through literature method, find out the common problems of teacher questioning and put forward measures to solve these problems, so as to provide reference for the first-line teachers to further improve the design of questioning and cultivate students' thinking quality.

## 2. Literature Review

### 2.1. Teacher Questioning

#### 2.1.1. Definitions of Teacher Questioning

Different scholars have given their own definitions of teacher questioning from different perspectives. According to Cotton (1988), a question is any sentence that has the form or function of a question. Ur Penny (2000) defines questioning as the teacher's discourse, which is intended to activate the learner's verbal response. Chen (2019) believes that teacher questioning can guide students to make further reflection, constantly challenge themselves and prior views, and cultivate students' critical thinking.

According to these different definitions, this paper defines teacher questioning as a teaching process in which teachers ask students questions purposefully to trigger students to think more deeply.

### 2.1.2. Bloom's Taxonomy of Educational Objectives

Bloom (1956) discusses the taxonomy of educational objectives from the perspective of cognition, describing cognitive goals from low to high as six levels: knowledge, comprehension, application, analysis, synthesis, and evaluation (see table 1).

**Table 1.** Bloom's cognitive taxonomy (1956)



## 2.2. Thinking Quality

### 2.2.1. The Definition of Thinking Quality

Curriculum Standard 2017 proposes the key competence objectives of the English consisting of four elements: language ability, cultural awareness, thinking quality and learning ability.

The Ministry of Education reports that thinking quality refers to the ability and level of logical, critical and creative thinking. In other words, while learning language, students can acquire knowledge, understand the meaning and express their opinions through logical, critical and innovative thinking activities such as acquisition, sorting, generalization, integration, comparison, analysis, criticism and evaluation.

### 2.3. The Relationship between Developing Thinking Quality, English Reading, and Classroom Questioning

On the one hand, Dewey (1933) once pointed out that the core of thinking is to keep asking questions, and the art of teaching is reflected through questioning. On the other hand, reading class is an important way to develop students' key competence in English. Ge and Li (2000) argue that the questions used in reading instruction is a vehicle of developing thinking quality for students.

In conclusion, in English reading class, teachers usually transform the textbook knowledge into a series of hierarchical and systematic teaching questions to help students understand the text information, and develop their thinking quality.

## 3. The Current Problems of Teaching Questioning in Senior High School English Reading Class

It is clear that teacher questioning is one of the most common modes of interaction with students in the teaching process, and the quality of teacher questioning has a direct impact on the quality of English reading instruction. However, through a large amount of the literature reading, the author finds that the current status of teacher questioning based on the development of thinking quality in English reading classes of senior high school in China is unsatisfactory.

On the one hand, most of teachers' questions focus on low-level thinking and fails to achieve extension from low to high levels. Through reading related literature, the author found that

many teachers' questions about reading discourse are of the memory type, i.e., from the point of view of understanding the literal meaning of the text, including identifying the meaning of words, syntactic structure, the general idea and details of the text and so on. These types of questions students can extract information and answer directly from the discourse by reading. Since students hardly need to think, the requirement for students' thinking is very low, which is not able to fulfill the requirement of developing students' thinking quality. Of course, there are teachers who ask questions related to the use of the creative level, but the questions before that are not able to pave the way for the later questions and scaffolding, resulting in students becoming speechless when answering deeper questions. This shows that the design of teachers' questions has not yet realized the gradual progress, promote students' thinking from low level to high level of development (Huang, 2019).

On the other hand, Teachers leave too little time for students to answer questions, ignoring the value of follow-up questions. In today's English teaching classrooms in colleges and universities, according to Dong, the classroom discourse is mainly divided into: the teacher asks questions - the students think. The teacher controls the whole classroom, which makes the students passive all the time. Through the questionnaire, Zheng and Xuan (2023) find that the longest waiting time for the teacher was 2 and a half minutes and the shortest waiting time was 0 seconds while the students were prepared to answer the questions. Likewise, through the questionnaire, Xiong (2022) finds that teachers ask questions frequently, leaving students with short thinking time, and use more follow-up questions such as "And?", "Any other?", "Anymore?" and so on, which are obviously random. It can be seen that in the process of teacher's question-student's answer to the question, it is still the teacher who plays the leading role, the students do not have enough time to think and answer the question, and the teacher does not carry out in-depth questioning, and the question floats on the surface, which does not guide the students to carry out in-depth reading and thinking.

## 4. Problem Solution

### 4.1. Set the Cognitive Level of Questions from Low to High

Teacher questioning should be progressive, focusing on the students' zone of proximal development to provide students with difficult questions, so as to stimulate students' potential. Each question should be designed to lead students' thinking to a higher level for the purpose of arising students' interest in participating in activities so that students are able to fully express their own ideas, construct and improve the structure of the new knowledge by themselves, and deepen the understanding of reading discourse (Li, 2019).

According to the six cognitive goals of Bloom's taxonomy, we can correspondingly divide the questions in the reading class into six dimensions, i.e., memory questions, comprehension questions, application questions, analytical questions, evaluation questions, and creativity questions. In the classroom, students can continuously complete learning tasks on the scaffolding of "questions" provided by the teacher to improve thinking quality (Zhou, 2022).

According to the law of cognition, the design of questioning from easy to difficult is more reasonable, so the teacher questioning should start from the simplest memory questions. After memory questions, then it will be comprehension questions, which focus on helping students understand the specific content and meaning of the text and are usually asked using question words such as why and how. Students need to infer the writer's implied meaning and point of view from between the lines, including the cause and effect of events, characterization and central idea. By solving these types of problems, students can understand and internalize the content of the discourse.

Application questions focus on transferring knowledge by guiding students to apply the knowledge and skills they have learned to new scenarios. Such questions can be asked from the

perspective of detail prediction and guessing the meaning of words. In solving such problems students can strengthen the consolidation and implementation of new knowledge and skills. The purpose of designing analytical questions is to guide students to go deeper into the text. Analytical questions can be designed from the following perspectives: the discourse type of the text, thematic context and so on. These questions require students to know not only what it is, but also why it is that, and demand a high level of thinking from students. Then, Evaluation questions mean that students analyze and evaluate the text such as commenting on the truthfulness of the information, etc. Students can speak freely when answering such questions, and the answers will be very different from each other, so that their critical thinking and linguistic skills can be improved at the same time.

Finally, creative questions require the highest level of thinking and are designed to lead students to step outside of the text to accomplish new tasks, culminating in a unique piece of work. These questions require students to use their imagination and creativity to present their ideas. Creative questions can be designed from the perspective of continuation, rewriting.

In a word, teachers should make good use of question types. All six types of questions should be used by teachers in reading class so that they can gradually develop students' thinking ability from low to high order.

#### **4.2. Reduce the Frequency of Questions and Rationalize the Time**

teachers should have reasonable arrangement of teaching hours and class time. Teachers should organize teaching hours and class time reasonably to cultivate students' higher-order thinking ability in a targeted way. In fact, the short time for students to answer questions is mainly due to the teacher's high frequency of questioning and the short time between questions. Therefore, teachers need to make it clear that questioning does not depend on quantity but on quality, reduce the frequency of questioning moderately, and then add some questions that can inspire students thinking in the classroom (Liu, 2022). At the same time, according to the difficulty of questions, teachers should control the waiting time for each question in reasonable way, so that students can have plenty of time to think about the question. What's more, teachers need to pay more attention to the follow-up link, the teacher can ask follow-up questions appropriately in order to trigger students to think deeply about the questions or to express their own view, developing their critical thinking.

### **5. Conclusion**

Generally speaking, Teachers have not established the awareness of developing students' thinking quality in the reading classroom, paying too much attention to students' language knowledge learning and neglecting the development of students' thinking quality. On the one hand, when designing classroom questions, teachers should pay attention to following the law of students' cognitive development, designing corresponding questions from low level to high level according to Bloom's taxonomy, and at the same time paying attention to the scaffolding role of the previous questions to the following questions. On the other hand, teachers should reduce the frequency of questions, leaving students with enough time to think, and through high-quality follow-up questions to guide students to read the text for in-depth thinking.

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