

# Study on the Development of Critical Thinking in College English Teaching in Application-oriented University

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## ABSTRACT

The development of critical thinking has become an important issue in the reform and development of higher education. This paper summarizes the research results on the development of critical thinking at home and abroad. Based on the model of critical thinking development in foreign language teaching in universities proposed by Chinese scholars Wen Qiufang and Liu Xiaomin, it discusses how to develop the teaching system of critical thinking in college English teaching, including establishing teaching objectives, activating the teaching body, adopting a feasible critical thinking teaching model, integrating the critical thinking teaching process, enriching critical thinking resources, and reforming assessment methods. The aim is to promote the development and enhancement of students' critical thinking in college English teaching, and to promote the joint development of humanistic and instrumental English in universities.

*Keywords: application-oriented university, critical thinking, college English*

## I. INTRODUCTION

According to the National Programme for Medium- and Long-Term Education Reform and Development (2010-2020), students should be nurtured to be innovative in their exploration and practise their problem-solving skills. Critical thinking skills development is one of the core goals of higher education in China and a strategic task for long-term national development (Liu Xiaomin, 2013). In recent years, the reform and development of Chinese universities and colleges have paid more attention to the development of students' critical thinking skills. For application-oriented university, in the process of talent training, it is necessary to pay more attention to the development of students' critical thinking, so as to improve the critical thinking of professionals. However, for a long time, the ability to think critically and innovatively has become a shortcoming for many university students, and a considerable number of them have little understanding of knowledge and lack the ability to analyze, reason and evaluate. If college students lack the ability to think and innovate, how can they stay invincible in the fierce competition of the "Internet+ "era? In view of this, college English teaching, as an important part of higher education, should be oriented towards developing students' thinking and discernment skills, and teachers are required to reform the teaching mode to improve students' thinking and discernment skills.

## II. OVERVIEW OF CHINESE AND INTERNATIONAL RESEARCH ON CRITICAL THINKING SKILLS

Critical thinking is also called "critical thinking, critical thinking and critical thinking ability" in the academic circles. Critical thinking is an activity of thinking, a reflective activity with a social dimension. For a long time, there has been a great deal of research on critical thinking in the West. The specific definition, cultivation and testing models for critical thinking are numerous and complex, without a uniform concept. Some of the more influential models of foreign thinking ability are: the Delphi Report's biconical structure (1989), Anderson, Bloom's class-level model (2001), Paul & Elder's ternary model (2006), Lin Chongde's triangular structure model (2006), and Wen Qiufang's hierarchical model (2009).

Combining the different definitions of thinking and different models of thinking ability given by different scholars at home and abroad, the following consensus has been reached: (1) the core purpose of thinking is to make justified judgments; (2) critical thinking is the unity of the cognitive skills and emotional qualities of the thinker, the relationship between the two is close and inseparable; (3) cognitive skills are divided into three skills: analysis, reasoning and evaluation, which are in order of difficulty and are gradual; (4) The process of critical thinking involves metacognition or

meta-reflection, in which the thinker uses specific thinking skills to monitor, adjust, and correct his or her thought processes, and in which the thinker's ability to self-regulate plays a leading role in the bigger picture.

In recent years, Chinese scholars have also paid more and more attention to the study of students' critical thinking skills, and a large amount of literature on critical thinking skills research has emerged. Qian Kunqiang (1996), Sun Youzhong (2011) have studied the importance and urgency of critical thinking skills cultivation and its feasibility; Wen Qiufang et al. (2009), Yang Dexiang, Zhao Yongping (2011), Nuan Quanyou (2012) have explored the theoretical framework of critical thinking skills research among college students; Wang Jun (2013), Yin Jing (2018), Yu Jinming (2019), Li Bing (2019), Shuang Wenting (2020) have elaborated the use of critical thinking skills in English teaching; Fan Nengwei, Wang Aiqin (2017), Lin Yan (2019), Liu Xiaomin (2013) have discussed the teaching model of critical thinking skills cultivation; Wang Ding Ding (2019), Li Qianliao, Kai Hong (2020) have conducted empirical research on critical thinking skills cultivation.

### **III. THE CURRENT STATUS AND IMPORTANCE OF CRITICAL THINKING SKILLS IN COLLEGE ENGLISH TEACHING**

As an important part of higher education in our country, more and more scholars believe that developing students' thinking and discernment skills is the core goal of teaching. However, in Chinese university English teaching, there is a widespread problem of emphasizing language skills and neglecting the development of students' analytical and problem-solving thinking skills, which has created a large number of students who are not good at analytical thinking and lack certain reasoning and judgment skills. After graduation, these students, whether in written or oral English, demonstrate weak linguistic communication skills and a lack of logical language organization. As early as 1998, Huang Yuanshin suggested that there is a "critical absenteeism" among English major students, but now, in the past 30 years, the vast majority of Chinese college students still have the same problem, and the critical abilities of college students need to be improved urgently. In addition, college students face a fierce competition after graduation in the rapidly changing information age, and the rapid change of information technology can easily lead to the elimination of what students have learned in school after graduation.

According to the National Programme for Medium- and Long-term Education Reform and Development (2010-2020), students are to be nurtured with the spirit of innovation and the practical ability to solve problems. As an important part of higher education, college

English teaching takes on the important task of cultivating students' thinking, discernment and innovation abilities; moreover, university English is a comprehensive course based on English, which is essentially a humanistic course, emphasizing the extensive exploration of various ideas, creative thinking and fluid expression. Cultivating students' thinking and discernment skills in applied undergraduate English teaching is not only in line with the core objectives of higher education in China, but also in line with the nature of university English courses, and is also conducive to the development of students' practical abilities and their own development in the future.

### **IV. CONSTRUCTION OF A CRITICAL THINKING SYSTEM FOR COLLEGE ENGLISH TEACHING**

Drawing on Wen Qiufang and Sun Min's (2015) model of critical thinking in foreign language teaching in universities and Liu Xiaomin's (2013) model of critical thinking in university English teaching, the author attempts to achieve the goal of developing critical thinking skills in applied undergraduate English teaching, in line with the nature of the university English curriculum and teaching objectives, and to form a system for teaching critical thinking skills in applied undergraduate English.

#### *A. Establishing teaching objectives*

Fan Li and Yang Feng (2016) proposed that the educational goal of university English is that linguistic literacy and critical thinking skills are mutually exclusive and jointly refined. Language learning and critical thinking are inextricably linked. In a sense, foreign language learning is a process of continuous refinement of thinking and discussion, as these activities are the language activities that need to be carried out in university English classes. According to Wen Qiu-fang's hierarchical theory model (2009), learners need to have self-regulation, critical thinking, and cognitive skills and emotional traits. Among them, cognitive skills include the ability to analyze, reason and evaluate, and emotional traits mainly refer to curiosity, openness, confidence, integrity and perseverance. From this, it can be concluded that the pedagogical objectives of university English teaching to develop critical thinking skills should include two aspects. On the one hand, while cultivating students' basic skills of listening, speaking, reading and writing, students' cognitive skills of analysis, reasoning and evaluation should be enhanced, which in essence enables students to have the will and ability to recognize, analyze and understand the connection between language forms and ideas; On the other hand, in the process of improving students' cognitive skills, teachers should be rational and open-minded in their classroom teaching. Teachers should not only pay attention to the development of students' emotional

characteristics, encourage students to express their views boldly and confidently, but also cultivate students' truth-seeking attitude and creative spirit, promote the depth and breadth of students' thinking to reason and argue, so as to enhance the quality of personal qualities.

#### *B. Activation of the teaching body*

After Wang Cesan (1983) proposed the principle of "a student-centered class", the teaching concept of "student-centered" was introduced, which led to more thinking about changing a teacher-centered class.

In order to activate this huge body of teaching and learning, it is first necessary for the teacher to change the concept in the training of thinking. Teachers are no longer classroom decision makers, but rather designers and participants in thought-provoking activities, as well as serving to develop students' cognitive skills.

Secondly, based on an understanding of students' different personality traits and English proficiency, teachers work in groups of classes. Teachers need to pay attention to the distribution of students in each group, with a certain number of students who are active thinkers and bold speakers, as well as students who are good at English but are quiet and introverted, and students who are not active enough at all, which facilitates group competitions by encouraging each student's motivation to learn by working together in groups

In teaching, through the targeted selection of teaching resources that are open, thoughtful, interesting, contemporary, debatable and relevant, teachers guide students to look at problems from different perspectives and learn to think in other ways. In group discussions, students are asked to elaborate their own design decisions, to discuss and criticize each other, to let them experience the pleasure of better self-expression, thus activating the role of the teaching subject in the classroom.

#### *C. Adopting a viable model of critical thinking and teaching*

Wen Qiufang and Sun Min propose that the cultivation of critical thinking in university foreign language classrooms can be divided into four two-dimensional integration modes, namely, explicit separation, explicit integration, invisible separation and invisible integration. Wen Qiufang pointed out that college students are suitable to adopt a dominantly detached or dominantly integrated teaching model. However, under the current university English system, the state has not yet introduced relevant standards for critical thinking skills and assessment methods, and the separate curriculum requires the allocation of a large number of teaching resources such as professional

teachers, so it is currently difficult to realize the explicit separate model for the practical teaching of English in application-oriented university. Therefore, a dominantly integrated teaching model, in which the teacher explicitly explains to the students what kind of skills the teaching activity is to develop critical thinking, and the model in which critical thinking is developed throughout the teaching is more suitable for the applied undergraduate university English teaching.

#### *D. Integrating the teaching process of critical thinking*

The process of integrating critical thinking is the process of integrating language literacy and critical thinking skills in language teaching, and the teaching operation and use of materials can be achieved in multiple ways (Fan Li & Yang Feng, 2016). The applied undergraduate English teaching classroom can be taught in the following ways.

*1) Developing critical thinking through reading:* Teachers can determine the theme of some teaching material units, select reading materials related to the theme of the text, drawing on the content of the depth, defensible, interesting materials for students to do extended reading. By explaining and analyzing some knowledge points and contents, the teacher activates students' existing knowledge and experience, further transitions to the understanding of textual contents, digs up the connotations expressed in the articles, and in the process, clearly tells students how to develop the ability of categorization and comparison, and guides students to compare, reflect, absorb, improve and develop the habit of critical thinking.

*2) Inspiring critical thinking through questions:* Teachers use heuristic questioning more often in class, where the teacher is in no hurry to give the answer to a question and leads the students step by step through the questions in a prompted manner. During the questioning process, the teacher tries to ask questions from different perspectives to enlighten the students' minds, help them understand some of the details of the text and the author's point of view, and be able to infer the meaning of the words. In addition to the use of heuristic questioning, teachers can also set up different group activities, such as compulsory answers for each group of students, groups of students to grab answers and other items to liven up the classroom atmosphere. During the group activities, the teacher explicitly informs students of the need to develop analytical skills and reasoning skills. At the same time, teachers should monitor the activities of each group at all times and provide assistance if necessary. For those students who have difficulty in answering the questions, they can ask the other members of the group to help them to reduce

their anxiety in answering the questions and stimulate an atmosphere of mutual help among the group.

3) *Promoting critical thinking through discussion:*

Teachers use group discussions in the classroom where students exchange ideas with each other. Based on the group's answers to the questions, group debates are conducted on challenging questions that students are happy to answer. In the course of the debate, students from each group could express their views and work together to develop an outline of their statements, after which the group leader would stand up and express his or her views, which would then be debated among group members. The teacher explicitly tells the pupils to develop a variety of problem-solving options during the debate, to use appropriate argumentation and to define their own positions and perspectives. In addition, in refuting the opinions of others, students learn to examine, question, and judge the strength of their arguments and the reasonableness of their arguments, and to reflect on their personal knowledge limitations, preconceived notions, values, and attitudes to remedy and correct them in a timely manner. The students' ability to search for relevant information to argue and reason based on their understanding of the content of the article and to debate some of the author's points is helpful in mobilizing the students' ability to search for relevant information and to demonstrate their courage to refute others. While presenting their own viewpoints, students in each group cooperated with each other and adjusted their statements flexibly according to the refutations of others, trying to present their own viewpoints from different perspectives and promoting the development of students' reasoning and evaluation skills.

4) *Testing critical thinking skills through writing:*

After completing the reading assignment, students developed their own writing questions on the issues in the debate and wrote based on the results of the group discussions. The teacher explicitly tells students to use analytical, reasoning, and evaluative integrated thinking skills in the writing process. Students not only rethink the issues discussed in class at the time, but also distill, categorize, analyze, and evaluate certain valuable information. This process promotes the students' cognitive skills and also enables the integration of critical thought expression and writing. By organizing students' writing, teachers not only test students' thinking skills and strengthen their thinking skills, but also accelerate the pathways of knowledge transformation.

5) *Improving critical thinking through research:*

In order to further improve the innovation and practical ability of undergraduate students, stimulate students'

innovative thinking and innovative awareness, and improve students' innovative entrepreneurship practice ability, application-oriented university have set up a number of school-level undergraduate innovative entrepreneurship projects. Among them, the university-level undergraduate innovation training program is an individual or team of undergraduate students, under the guidance of the mentor, to independently complete the innovative research project design, research conditions preparation and project implementation, research report writing, results exchange and other work. With the facilitation of the school environment, teachers can select from the classroom group discussions, presentations and writing situations a number of students with a clear and active mind and strong written expression to participate in the innovative training program for university students. Teachers set up research groups based on teaching materials and classroom content, oriented to scientific research projects, and through the use of task-based, cooperative, project-based, inquiry-based and other guidance methods, through research learning, independent learning, to guide students to carry out preliminary research work, collect data, views, complete research reports or write papers. In the research process, teachers require students to use a combination of analytical, reasoning and critical skills to stimulate students' creative thinking, to cultivate students' truth-seeking attitude, to promote the breadth and depth of thinking, and to enhance students' thinking and discernment skills.

E. *Enriching teaching resources*

Teachers need to select the reading material for the thinking activity. First, teachers should select material that is open-minded and thoughtful. The materials selected by teachers must have a certain depth, not too shallow, and the themes in the materials should be able to guide students to establish the correct values, ideas; secondly, the materials selected by teachers should be interesting and timely. Teachers should preferably select topics that are close to students' lives, so that students feel that they have something to say; next, teachers should select materials that are defensible and relevant. Arguability means that the phenomena and views reflected in the materials are worth thinking about and are somewhat controversial, and different people will often give different views. Relevance means that the content of the material should be relevant to the topic of the text, so that students have a sense of familiarity and a rule to follow. In addition, teachers should select materials of moderate difficulty based on the English foundation of existing students. The selection of appropriate materials for teaching and learning can not only stimulate students' interest in learning new knowledge, but also ensure that students

can expand their knowledge and activate their existing knowledge and experience while learning.

#### *F. Reforming measurement*

In order to better assess students' critical thinking skills, teachers need to reform the existing assessment methods in several ways.

1) *Enrichment of assessment forms and flexible use of subjective tests:* In addition to traditional testing methods, teachers can use the measurement methods of group debate, individual PPT presentations or group PPT presentations. At the same time, in mid-term and final examinations, teachers can reduce the proportion of objective multiple-choice questions, increase the proportion of question-and-answer questions, expository questions and essays, and increase the number of subjective questions, which will help students express their own views more often, and also help teachers understand the level of students' critical thinking skills.

2) *Reducing the proportion of summative assessments and use formative assessment mechanisms:* In order to develop students' critical thinking, teachers should increase the weight of the critical thinking component in the assessment, reduce the proportion of summative assessment and adopt a formative assessment mechanism. Teachers reduce the proportion of final examinations in the overall grade, increase the proportion of usual grades in the overall grade of students, and design assessment questions reflecting analytical, reasoning, and evaluation skills in students' daily performance in class, such as speaking, answering questions, and group discussion, and include them in the usual grade. This not only enables students to focus on their usual performance and cooperate with the teacher to develop their critical thinking skills in the classroom, but also reflects their specific critical thinking skills more fairly.

3) *Defining criteria for the assessment of critical thinking skills:* According to Wen Qiu-fang's hierarchical model of critical thinking skills, cognitive skills include analysis, reasoning, and evaluation, and there are five major evaluation criteria for each skill, namely, clarity, relevance, logic, insight, and flexibility. Teachers can refer to the above model when designing the assessment criteria of critical thinking ability, and set the assessment criteria into two aspects. First, cognitive ability is used as the criterion, and the assessment questions of analytical ability, reasoning ability, and evaluation ability are designed from the classroom critical thinking activities, and are included in the usual scores, and students are explicitly told what

kind of critical thinking ability a certain activity should be examined, and evaluated from five points: clarity, relevance, logic, insight, and flexibility. On the other hand, the assessment increases the ability to examine the students' emotional thinking, whether the students show curiosity, openness, self-confidence and other emotional qualities in classroom activities, is also included in the usual score.

## **V. CONCLUSION**

In a big way, the cultivation of students' intellectual ability is related to the long-term development of the country and the reform and development of higher education in China; in a small way, the cultivation of students' intellectual ability is related to their own development, the importance of which is increasingly recognized by most scholars. This paper summarizes the research results on the development of critical thinking skills at home and abroad. Based on the model of critical thinking skills development in foreign language teaching in universities proposed by Chinese scholars Wen Qiu-fang and Liu Xiaomin, it discusses how to develop the teaching system of critical thinking skills in university English teaching, i.e. establishing teaching objectives, activating the teaching body, adopting a feasible critical thinking teaching model, integrating the critical thinking teaching process, enriching the critical thinking teaching resources, and reforming the assessment methods. The aim is to promote the development and enhancement of students' critical thinking skills in university teaching and to promote the joint development of humanistic and instrumental English in universities.

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