

## Cultivating College Students' Critical Thinking Ability in China

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### Abstract

As one of the aims of cultivating innovative talents in colleges and universities, the cultivation of the ability of critical thinking has attracted great attention from domestic experts. In addition, the importance of college English curriculum in cultivating the ability of critical thinking has been emphasized in the educational field in recent years. Based on the relevant studies on College English curriculum and the critical thinking ability, this paper analyzes the definitions of critical thinking, the cultivation of critical thinking ability and the construction of measurement tools.

**Key words:** Critical thinking; College English; Cultivation of critical thinking ability; Measurement tools

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### INTRODUCTION

Under the background of intense international competition for talents, western countries were concerned with the cultivation of students' critical thinking ability, for example, the United States has made the cultivation of students' critical thinking ability an important task of higher education. The U.S. government began making it a goal of college education in 1993 (Wen, 2012). As

Boeckx (2010) pointed out, new knowledge is growing at a geometric progression rate, and if you only try to master the knowledge, what you learn in school is likely to be obsolete by the time you graduate. Students can benefit throughout their lives if their goal is to develop critical problem-solving thinking skills.

*The syllabus of English Teaching for English Majors in Colleges and Universities* in China clearly stipulated that it was necessary to consciously strengthen the cultivation of students' thinking and innovative abilities, such as the abilities of analysis and synthesis, abstraction and generalization, multi-angle analysis of problems, and innovative abilities related to finding and solving problems. From the documents of educational reform, we can see that English teaching should attach great importance to the cultivation of critical thinking ability, which has reached a basic consensus in the field of English education (Sun, 2011). There was much research on the development of the critical thinking ability of primary and middle school students in China (Lin, 2006), but the research on the critical thinking ability of college students has not yet fully started (Wen et al, 2009). Moreover, though the research on critical thinking has been on the rise in recent years, most of the studies only concentrated on the one-fold aspect of either oral English teaching or critical thinking. This paper aims to review the relevant studies on college English and critical thinking in China. To be more specific, it will discuss about the various definitions of critical thinking, the cultivation of learners' critical thinking ability in college English teaching, and the construction of measurement tools.

### 1. THE DEFINITIONS OF CRITICAL THINKING

Critical thinking has long been viewed as a skill for a lifetime complicated choices that individuals have to make in their personal, academic and social lives. In this

fast-paced and ever-changing world we live in, critical thinking was not a mere luxury; it has been considered by many scholars a basic survival skill (Facione & Facione, 1996).

Chinese scholars in different fields have provided concepts related to critical thinking. In the early stage, research was mainly from the fields of psychology and philosophy. As time went on, it gradually appeared in the field of education. Huang (1998) put more emphasis on creativity and thinking, viewing analysis, synthesis, judgment, inference, and comparison as the core of critical thinking.

Kong (2000) regarded critical thinking as a tool to realize the self-improvement of thinking based on a set of evaluation criteria. He paid heed to the depth and width of analyzing and evaluating things. According to him, during the process of critical thinking, the targeted question should be proposed.

In a similar vein, Liu (2000) brought forward the notion that critical thinking ability is a process of individual's judgment of the accuracy, quality, and value of what people have learned, and it is the ability that they can make a reasonable decision on what to believe and what to do.

Identifying the importance of thinking during the process of studying and realizing the true essence of critical thinking, Zhong (2002) held the view that students should be forced to pose questions, explore hypotheses and search for rationality, and receive the information actively. Wen (2008) went forward to regard critical thinking as a kind of thinking to analyze and evaluate one's own thinking ability.

To sum up, critical thinking ability means that people should be creative, purposeful, reasonable and accurate when they make decisions, do actions or analyze and evaluate things.

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## 2. THE CULTIVATION OF CRITICAL THINKING ABILITY

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When it comes to language learning, especially English as a Second Language or English as a Foreign Language, the significance of cultivating ESL/EFL learners' critical thinking ability is highly recognized and extensively advocated. Many researchers recognized the validity and necessity of ESL/EFL learners' critical thinking ability in an ESL/EFL context (Atkinson, 1997).

Huang (1998) put forward that English majors lacked critical thinking, such as the ability of analysis, synthesis, evaluation, reason and discrimination. He pointed out that when the students need to make a comment after writing articles or listening to a lecture, they often have nothing to say. A good case in point is that in oral activities, such as English salon and English speech, students' communication usually stops at simple conversations in

daily life, and it is difficult for them to talk about an issue in depth. This lack of analytical, synthetical, judgment, reasoning, thinking and discriminating ability can be called as "the absence of critical thinking skills" (Liu, 2013).

How to improve the language skills and cultivate the ability of critical thinking simultaneously in English teaching has become an important proposition and an urgent task in the current reform of college English teaching (Sun, 2019). This has actually been pointed out twenties years ago (Sun & Wen, 1999), which discussed the importance and necessity of attaching importance to the development of critical thinking ability in oral English teaching for college English majors. Later, based on the theory of a hierarchy of critical thinking ability (Wen et al, 2009), Liu (2013) put forward the training mode of critical thinking ability by constructing a classroom environment, relying on course content, strengthening self-regulated learning and reforming assessment methods.

In recent years, Liu and Jin (2012) explored the effect of the English debating course on the development of students' critical thinking ability, findings showed that students' evaluation, inference and deductive inference skills have been improved significantly after seven months of study. Wang (2015) cultivated listening proficiency with critical thinking, based on critical listening. Among them, the evaluation skill is particularly outstanding. Ding (2012), Wang (2017) and Yu (2017) pointed out that the cultivation of the ability of critical thinking needs to strengthen the depth, breadth, and systematicness of the research. Sun (2019) put forward eight principles of English teaching for critical thinking--TERRIFIC, including Target, Evaluate, Routinize, Reflect, Inquire, Fulfill, Integrate, Content. Through the implementation of these principles, we can effectively promote the innovation of college English Major and college English teaching reform and improve the quality of talent cultivation.

We can see that research on cultivating the ability of critical thinking in China can be divided into two types, one is the concrete teaching strategies or models which take cultivating critical thinking ability as the guidance in different courses, the other is some macro-strategies which do not divide the courses. Based on the importance of critical thinking ability, the former mainly focused on how to adjust and reform the curriculum of college English majors and the whole talent training mode, so as to better train the students' critical thinking ability (Huang, 2010; Li, 2010; Sun, 2011). After that, the research discussed how to cultivate students' critical thinking ability from a macro perspective, such as reducing skill-based courses and increasing the cultural and knowledge courses which can benefit students' critical thinking ability (Yu, 2017).

In the past few years, the research on the cultivation of college English critical thinking ability in China has developed rapidly and achieved some achievements, but

we also see some deficiencies: the research on critical thinking ability that can be directly applied to teaching practice is rare, and most of the studies have only revealed the existence of the problems instead of solving the problems. In addition, the number of empirical studies of the students' critical thinking ability is relatively small, and most of them are about the introduction or discussion of the cultivation strategy. Moreover, in the training of critical thinking ability of college English language skills, more attention has been paid to reading and writing skills. We can conclude that it is necessary to strengthen the strategic research and empirical research on the cultivation of critical thinking in English in future research.

### 3. THE CONSTRUCTION OF MEASUREMENT TOOLS

In order to find out the current situation of college students' critical thinking ability, Wen and Liu (2006) explored the characteristics of English majors' abstract thinking ability by means of English propositional composition. The results showed that there were obvious problems in English majors' ability to abstract generalization. It is obviously not enough only to rely on English compositions to measure indirectly the level of thinking ability of college students (Wang & Wen, 2011). Writing test in English will affect the students' English language ability, but due to the limitations of the composition title, it cannot reflect the overall thinking level of students. Besides, there are few pieces of research that only use some foreign measurement tools on the measurement and evaluation of the thinking ability of Chinese college students. Therefore, it is an urgent need for high reliability, good validity of the thinking ability of measurement tools in China.

Using the two measurement tools, California Critical Thinking Skills Test and California Critical Thinking Inventory, which were developed by The Delphi project, Luo (2002) tested the students of a comprehensive university. And the two tools were revised after the test results. However, there are still two obvious problems in the revised measuring tools. One is that some of the items are not accurate enough, and the other is that some of the items do not conform to the social and cultural background of China. Thus, theoretical frameworks were created for the construction of a suitable tool for measuring Chinese college students' critical ability. At present, the most influential theoretical frameworks of thinking ability in China are Lin's model of the structure of thinking, Wen Qiufang's hierarchical model, and Ruan's model.

Lin (2003) proposed that a structure of thinking consists of six components: self-regulation of thinking, the purpose of thinking, materials of thinking, processes of thinking, non-cognitive factors of thinking, and

qualities and outcomes of thinking. According to Lin's theory of intelligence, each component of the structure of thinking consists of various factors. The components of the structure of intelligence are not only relevant to the relation between cognition and social cognition but also relevant to the relation between the content and form of intelligence.

Wen et al (2009) held that the double-dimensional model proposed by the American Philosophical Association is intuitive and easy to understand as a whole, and can be used as the basic framework for research. However, the criteria of the three-dimensional model and the identification of the whole function of self-regulation in the three-dimensional model should be integrated into its theoretical framework. Therefore, they proposed a hierarchical model on the basis of drawing conclusions from the double-dimensional model, the three-dimensional model and the triangular structural thinking model. The hierarchical model advocates that critical thinking ability should be divided into two levels: meta-critical thinking skills and critical thinking skills, with the former governing the latter. The first layer of meta-critical thinking skills refers to the skills of thinking, checking, adjusting, and evaluating oneself; The second level of critical thinking skills includes skills and standards related to cognition, as well as emotional traits related to critical thinking quality. The critical thinking skills comprise cognitive component and affective component. The basic framework of the hierarchical model borrows the framework of the two-dimensional model but adds the "standard" of the three-dimensional model to the cognitive dimension.

After analyzing the research situation on critical thinking at abroad and home, Ruan (2012) constructed a theoretical framework about English majors' critical thinking ability. The core of this framework is the cultivation of students' critical thinking ability and the four-roles model. The theoretical framework combined the four roles model, Web 2.0 Web-based learning environment, action learning theory, and blended learning theory for developing Chinese English majors' thinking ability. It is emphasized that the mixed learning theory of student-centered and teacher-centered teaching thought and the combination of effective communication between teachers and students and on-line learning in classroom teaching should be applied to construct a teaching environment for cultivating the ability of thinking. On this basis, the strategy of action learning is creatively integrated into every learning process of the four-roles model, which makes students use the ideas of action learning theory as a researcher, learning in action, reflecting in action, etc. in teaching activities. Therefore, students can find, analyze and solve the problems in the course of participating in the practice as code breaker, meaning maker, text user and text analyst, and further improve their ability of critical thinking.

What we have discussed above shows that, there is still few research on the test of critical thinking ability for college students in China. Most of the measuring instruments used are borrowed or revised directly from abroad. However, reliability and validity need to be tested by a large number of empirical studies so as to ensure that the result of the test is suitable for China's national conditions.

## CONCLUSION

As a kind of scientific thinking, critical thinking ability has been favored by governments, educational institutions, experts and scholars all over the world. By cultivating critical thinking competence, not only learners' language learning efficiency can be promoted, but also their horizons can be broadened. The cultivation of critical thinking ability is related to the all-round development of students and the realization of long-term national strategy, and its importance is beyond doubt. Accordingly, it is significant for college English teachers to pay enough attention to the cultivation of students' critical thinking ability. Nowadays, students should develop the abilities of creative and critical thinking along with a solid language foundation so as to adapt to the changes arisen in our society more easily and perform excellently at work. There is still a great space for the development of the study of critical thinking in both breadth and depth. More case studies are needed to reveal the deep relationship between critical thinking and English teaching.

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