

Cultivating Critical Thinking Skills in the Process of College English Teaching Based on Content-Based Instruction

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At present, our country is implementing innovation-driven development strategy and promoting mass entrepreneurship and innovation. Critical thinking is a prerequisite for innovation and one of the ultimate goals of higher education. Content-based instruction (CBI) integrates knowledge construction, language learning with thinking training, and serves as an effective approach to cultivating critical thinking skills in the process of college English teaching. Based on content-based instruction, the paper puts forward some feasible suggestions on how to cultivate critical thinking skills from the perspectives of curriculum setting, classroom instruction and assessment. The research will be of practical significance for the promotion of students' critical thinking skills, the practice of innovation and entrepreneurship education and serving the national strategy.

Keywords: CBI, critical thinking skills, college English teaching

Introduction

Currently, China is accelerating the implementation of the innovation-driven development strategy, and further promoting mass entrepreneurship and innovation. Therefore, innovative talent cultivation mode needs to be established, and the talent cultivation modes in colleges and universities are faced with new challenges. Cultivating college students' innovation spirit and ability is one of the most important tasks of higher education in China. And the critical thinking skills are the core abilities of reason and creativity (Dong, 2012) as well as the fundamental basis of the innovation spirit and ability (Sun, 2015). Development of students' critical thinking skills is the common goal of higher education. College English, as a public required course in colleges and universities, is an important carrier of cultivating students' critical thinking skills (Wen & Sun, 2015). However, foreign language teaching in China at present focuses on imparting language knowledge and training of language skills. Language acquisition and learning of disciplinary knowledge are separated. Teaching activities are carried out on the basis of mechanical simulation and low-level thinking. Such a teaching mode will not help the development of students' critical thinking skills (Sun, 2015). Professor Gui Shichun, a leading scholar in the foreign language research field in China, thinks that classroom instruction of languages should be based on content (Gui, 2015) and college English teaching should be content-driven (Yu & Han, 2012). Professor Sun Youzhong has proposed that the basic approach of cultivating critical thinking skills of students of the foreign language major should include knowledge-based skill courses, skill-based knowledge courses, critical thinking-based skill courses, and critical thinking-based knowledge courses, and its theoretical basis is content-based instruction (CBI) (Sun, 2015). This theory stresses integration of knowledge construction,

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language learning, and thinking training. Research of domestic scholars on cultivation of critical thinking skills of students of non-English majors is relatively lagging behind and started at a later time (Gong & Chai, 2015). Therefore, discussion about the cultivation of students' critical thinking skills in CBI of college English is of significant theoretical and practical value.

CBI and Critical Thinking Skills

CBI transfers the teaching emphasis from language learning by learning language itself to learning disciplinary knowledge. This is a language teaching concept which integrates language and content organically. In CBI teaching, target language (second language/foreign language) is the medium of learning disciplinary knowledge. Disciplinary knowledge is the starting point and foothold of target language learning. The teaching concept of CBI has three major features, i.e., focusing on disciplinary knowledge, applying authentic language materials, and meeting students' special demands (Stryker & Leaver, 1997). For language teaching which is carried out for different levels of students in various of language learning environments, CBI is of significant effects in terms of improving students' overall linguistic competences, promoting growth of disciplinary knowledge, and cultivating students' positive psychology (Stryker & Leaver, 1997).

Critical thinking is likely to be understood narrowly as negative or disapproved criticism. However, it is a high-level thinking activity guided by dialectical reason and the spirit of openness (Dong, 2012). According to *The Delphi Report* released by American Philosophical Society (1990), critical thinking skills consist of cognitive skills and emotional qualities. Cognitive skills are mainly composed of analysis, evaluation, and reasoning, and emotional qualities are embodied as good emotional tendency, including curiosity, seeking for truth, fairness, openness, confidence, integrity, determination, etc. The fundamental goal of critical thinking is to make judgment with purposes based on rational grounds to promote the development of cognition (Wen & Sun, 2015). Critical thinking skills are the premise and base of the innovation ability as well as one of the ultimate core goals of higher education.

Language and thinking are inseparable. Thinking is a brain function of humans, while language is the tool of realizing thinking and expressing ideas. They are dependent on and promote each other. CBI, as the latest foreign language concept, has a close relationship with cultivation of critical thinking skills. Empirical studies have shown that CBI can improve students' critical thinking skills effectively (D. X. Zhao & Y. P. Zhao, 2011). Firstly, CBI pays attention to learning of significant disciplinary content and stresses discovery based on exploration. And learning tasks which stimulate active thinking of students in CBI teaching are designed, such as description, classification, comparison, analysis, synthesis, evaluation, creation, etc. Secondly, authentic learning materials with certain cognition difficulties are applied in CBI teaching, such as newspapers, books, journals, video materials, etc. Students participate in learning activities related to content knowledge they learn. Such teaching activities are involved in this teaching mode as intensive learning, extensive learning, literature reference, note classification, group discussion, translation, writing, and presentation. These learning materials and activities stimulate students to think actively in the whole teaching process and enable their higher-order thinking skills to be trained.

Cultivation Strategies of Critical Thinking Skills Based on CBI

According to the composition of critical thinking skills, education about critical thinking skills should stress the cultivation of higher-level cognitive skills as well as the cultivation of the spirits and reasonable

virtues, such as seeking for truth, fairness, and reflection (Dong, 2012). Specific strategies for cultivation of critical thinking skills of students in college English teaching are proposed based on the teaching concept of CBI from three aspects of curriculum setting, classroom instruction, and teaching assessment.

Perfecting College English Curriculum Setting and Specifying the Cultivation Goals of Critical Thinking Skills

Curriculum is an important carrier of cultivation of critical thinking skills. Traditional college English curriculum setting is mainly based on general English courses which mainly include systematic English linguistic knowledge (pronunciation, vocabulary, grammar, discourse, pragmatics, etc.) and training of linguistic skills (listening, speaking, reading, writing, translation, etc.). Content of curriculums is separated from disciplinary content knowledge and there are not clear goals about cultivation of critical thinking skills, which does not promote the cultivation of critical thinking skills. The teaching concept of CBI stresses integration of language learning and disciplinary knowledge learning and the improvement of linguistic competence on the basis of mastering disciplinary knowledge so as to integrate knowledge construction, language learning, and thinking training. A three-in-one college English curriculum system integrated with general English courses, ESP (English for specific purposes) courses, and cross-cultural communication courses should be constructed based on the teaching concept of CBI to integrate cultivation of critical thinking skills with the college English curriculum system, and goals about cultivation of critical thinking skills of each category of curriculums should be specified.

General English courses are mainly designed for students with a weak English basis. To effectively cultivate their critical thinking skills, the theme-based language teaching mode and theme-based course content should be applied. The themes applied must meet students' academic and cognitive needs, educational goals as well as social needs and expectations. In terms of training of language skills, output of skills should be stressed, especially for presentation and writing skills which are closely related to critical thinking skills. ESP courses and cross-cultural communication courses are mainly designed for students with a solid English foundation. ESP courses integrate with language teaching and disciplinary content organically to improve students' ability of applying English in major learning and working. ESP courses mainly include EAP (English for Academic Purposes) and EOP (English for Occupational Purposes) courses. The core EAP courses are EGAP (English for General Academic Purposes) courses which specifically include academic English reading, academic English viewing, listening, and speaking, academic English writing, and academic English report presentation. These courses are good carriers of cultivating students' critical thinking skills. Critical thinking skills can also be improved effectively through discussion about cross-cultural problems. Specifically, cross-cultural communication courses include Chinese culture, English culture, American culture, European culture, comparison between Chinese and western culture, classical western thoughts, cross-cultural communication, etc. Learning and comparison of Chinese and western culture can enlighten students' ideas, explore their thoughts, and make their ideas be more open and inclusive.

Designing College English Classroom Instruction Elaborately and Strengthening the Cultivation of Students' Critical Thinking Skills

Class is the main platform for cultivation of students' critical thinking skills. Traditional college English classroom instruction is teacher-oriented, stressing imparting knowledge and deeming students as the passive receivers of knowledge. The teaching concept of CBI, based on the experiential learning theory and the

constructivism theory stressing “learning by doing” and knowledge construction, takes the target language as the medium, and improves students’ linguistic competence and critical thinking skills through completing colorful learning tasks with certain cognition challenges. The teaching mode of learning before teaching can be applied to realize flipped classroom model in the real sense. Students learn teaching content (text materials, video-audio materials) sufficiently by themselves before classes, remove language barriers in terms of disciplinary knowledge understanding, and raise questions they cannot answer by themselves. In classes, teachers answer students’ questions based on key and difficult points of disciplines and apply advanced foreign language teaching methods, such as the production-oriented approach (POA), project-based learning (PBL), and task-based language teaching (TBLT), to elaborately organize classroom instruction activities, such as personal presentation, group discussion, role play, speech competition, argumentation, case analysis, paper writing, etc. In these activities, students actively read, think, investigate, discuss, explore, and present, by which disciplinary contents will be understood profoundly, linguistic competence and critical thinking skills are trained effectively, and the emotional qualities of critical thinking are cultivated positively.

Classroom questioning is one of the most commonly used methods in classroom instruction. The type of questions and the cognitive level will affect students’ thinking. Questions with a high cognitive level will help cultivate students’ critical thinking skills. According to the taxonomy of six-level cognitive abilities of Bloom, the cognition abilities can be classified from the bottom to the top into knowledge, comprehension, application, analysis, synthesis, and evaluation. In terms of the classroom questioning link, teachers should pay attention to the development rule of cognitive abilities from the lower level to the higher level, and answer questions of different cognitive levels in different learning stages. For example, some knowledge and comprehension-based questions can be asked at the early stage of learning a text, application and analysis problems can be asked at the middle stage of learning, and synthesis and evaluation questions can be asked at the late stage of learning. In addition, teachers should ask further questions according to students’ reply to the initial questions to stimulate students’ thinking and promote the development of their higher-level cognitive ability. During the process of classroom questioning, teachers should create opportunities for students’ exerting their critical thinking skills, provide students with more freedom, encourage them to think questions from different perspectives or propose new ideas, and should not criticize biased opinions without thoughtful consideration.

Reforming the College English Teaching Assessment Mode and Taking Critical Thinking Skills as the Important Assessment Goals

Traditional language teaching assessment mainly applies standardized tests. The test contents are about linguistic knowledge and linguistic skills, stressing examination of memory, understanding other lower-level cognitive abilities. This evaluation mode will not have positive effects on cultivation of critical thinking skills. Modern education assessment theories stress assessment which can promote learning. Teaching assessment is a process where students’ learning information and understanding information are collected and then make teaching decisions to promote teaching. To make up for the deficiency of traditional language teaching assessment, college English teaching assessment based on the teaching concept of CBI stresses assessment modes which can promote improvement of both students’ linguistic competence and critical thinking skills, especially classroom assessment (i.e., formative assessment), and integrates formative assessment with summative assessment organically. During the formative assessment process, teachers should specify that critical thinking skills are an important part of the assessment goals, elaborately designing assessment tasks

which help students' improvement of critical thinking skills, such as oral report, writing of book reviews or film reviews, book reading report, reflection diary, investigation report, speech competition, debate competition, paper writing, etc. Taking investigation reports as an example, in preparation for writing investigation reports, firstly, students should collect a lot of materials about the investigation questions and read a lot of literature; secondly, they should elaborately design the project, and start to carry out investigation research; thirdly, they should carry out data collection and analysis, and discuss research results; finally, they should summarize the investigation research, write investigation reports, and present their investigation report orally. The whole investigation research is a process of strictly training students' critical thinking skills. Meanwhile, teachers should apply diversified assessment modes, such as teacher assessment, students' self-assessment, and peer assessment. Diversified assessment tasks and diversified assessment modes enable students' thinking to be trained sufficiently and improve their critical thinking skills.

As for summative assessment, content-based critical thinking skills examinations are designed to organically combine examination of contents, language, and critical thinking skills. Assessment goals mainly include contents in the model of six-level cognitive abilities of Bloom, especially involving the latter three levels. Four principles should be followed in terms of design of assessment tasks: feasibility, effectiveness, reliability, and diversification (Brinton, Snow, & Wesche, 1989). More constructive-response questions should be set. For example, when it comes to the reading comprehension questions, the proportion of multiple-choice questions should be decreased, and the proportion of question answering, paraphrase, and other subjective questions should be increased; writing tasks should be designed flexibly. For example, students can be required to read a paper and then write a paper abstract or read an article and then write a paragraph of evaluation based on the views reflected in the article, or the continuation writing proposed by Professor Wang Chuming. As regards content-based examinations about critical thinking skills, specific and operable assessment standards must be constructed, and assessment dimensions, such as language, contents, and critical thinking skills, must be involved.

Conclusion

Critical thinking skills are the premise and base of the innovation ability as well as one of the ultimate core goals of higher education. The teaching concept of CBI integrated with knowledge construction, language learning, and thinking training is an important approach to cultivating students' critical thinking skills in college English teaching. A perfect college English curriculum system is an important carrier of cultivating students' critical thinking skills. The classroom instruction mode of learning before teaching and elaborately designed classroom instruction activities enable students' critical thinking skills to be trained effectively and emotional qualities of critical thinking to be cultivated positively. Diversified assessment tasks and modes enable students' thinking to be trained sufficiently and meta-critical thinking skills to be improved effectively. In this paper, targeted and feasible suggestions about the cultivation of critical thinking skills are put forward based on the teaching concept of CBI from three aspects of curriculum setting, classroom instruction, and teaching assessment, which is of practical significance for improving college students' critical thinking skills, better implementing innovation, and entrepreneurship education and serving national strategies.

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