

# A Study on the Cultivation Strategies of Critical Thinking Ability in Graduate Public English Teaching

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**Abstract:** In graduate education, critical thinking is of vital importance not only to students' study and research but also to their future career success. Yet at present, this ability hasn't been attached enough importance to graduate public English classes. Given this situation, this study, based on the practical teaching of "New Era Academic English for Graduate Students," discusses in detail the strategies for cultivating students' critical thinking ability in graduate public English teaching from the perspectives of teaching objectives, teaching contents and methods, course assessment and students' evaluation, to improve students' critical thinking ability to elevate their core competence in their research field or in their future work.

**Keywords:** Graduate public English teaching; Critical thinking; "New Era Academic English for Graduate Students"

**Online publication:** September 24, 2024

## 1. Introduction

In graduate education, the cultivation of students' critical thinking ability is an essential teaching goal. The word "critical" derives from two Greek roots: one is "kriticos" meaning "judgment with an eye" and the other is "kriterion" meaning "standard," therefore "critical" means applying appropriate assessment criteria for conscious thinking to form a reasoned judgment finally <sup>[1]</sup>. Paul, director of the Center for Critical Thinking Research in the United States, states that critical thinking is the process of actively and skillfully reading, applying, analyzing, synthesizing, evaluating and governing the information such as beliefs and behaviors, etc., encourages us to deliberate, question and discard the information we exposed to <sup>[2]</sup>. Critical thinking is of vital importance not only to students' study and research but also to their future career success. It is known that the U.S. government has included it as a college education goal since 1993 <sup>[3]</sup>. Yet at present, this ability hasn't been attached enough importance to Chinese graduate classes, especially in graduate public English classes. Traditional graduate public English teaching puts more emphasis on "key linguistic and grammatical knowledge teaching as well as question-answer skills training" <sup>[4]</sup>, lacking group presentations and discussions as well as reflection on some cultural phenomena or thought-provoking issues in the classroom activities, which is to a certain degree, influences the improvement of students' critical thinking ability. As to the consequences of

lacking critical thinking, Huang Y (2010) stated that the absence of critical thinking directly affects a person's creativity, research and problem-solving abilities, that is, a person's qualities <sup>[5]</sup>.

Despite the fact that some educators and teachers have conducted some theoretical and practical research on critical thinking, for instance, Wen Q *et al.* (2009) proposed a conceptual framework for assessing Chinese college students' critical thinking skills <sup>[6]</sup>, Wu X (2015) explored "the effectiveness of the content-based language instruction of American SIOP Model on the development of English majors' critical thinking ability" <sup>[7]</sup>, and Wei X (2012) analyzed the construction of a multi-dimensional training mode for developing English major students' critical thinking skills <sup>[8]</sup>, nevertheless there have been very few studies on how to cultivate non-English majors' critical thinking ability in graduate public English teaching from the practical perspective of course teaching. Given this situation, this study discusses in detail the strategies for cultivating students' critical thinking ability in graduate public English teaching from the perspectives of teaching objectives, teaching contents and methods, course assessment and students' evaluation based on the practical teaching of "New Era Academic English for Graduate Students." With a view to improving the attraction of this course to non-English major students, and more importantly, the study also discusses increasing the depth of their thinking and broadening their perspectives on things, which in the long run, is bound to contribute to elevating their core competence in their research field or their work.

## 2. Teaching objectives

Paul R *et al.* (2005) explicitly proposed a generalized standard of critical thinking from a pedagogical point of view based on many years of research and examination. They believe that all students with critical thinking skills, despite their different disciplines and specialties, have four characteristics in common:

- (1) They are self-oriented and self-monitoring learners;
- (2) They place questioning at the center of their learning;
- (3) They have their value system and subjectivity in their reading;
- (4) They can write insightful essays <sup>[9]</sup>.

The above four criteria of critical thinking ability provide a valuable reference framework for teachers to set teaching goals for the graduate public English course. Following these criteria as well as the rules and characteristics of the development of students' thinking, the teacher of this course is expected to not only improve students' language skills and writing techniques but also stimulate their curiosity and desire for knowledge and foster in them the qualities of independent, critical and innovative thinking, prudent judgment, openness and tolerance. In the practical class activities, students are expected to elevate their study subjectivity and initiative, understand the deep association between knowledge and the social context, profoundly explore the themes of the units, integrate the instrumental and humanistic values of the course and reflect on their real-life experience.

## 3. Teaching contents and methods

Processing information is key to the cultivation of critical thinking <sup>[10]</sup>. In view of this, before the class, students are asked to collect and synthesize the material related to the unit they will learn, and prepare for the unit presentation within their group, which gives full play to students' subjectivity and provides them the necessary learning opportunities to develop their ability to search, read, organize and evaluate information. For example, in Unit One in Book Two, the title of the unit is "Man and Nature," which means that before the class, the teacher can advise students to collect some materials about the different relationships between man and nature in ancient times, in the

early modern times and at present. In the process of preparing for the background information, students can learn about people's different attitudes towards nature at different historical periods, which in turn have determined people's different influences on the environment. By clarifying this complicated and profound question, students' abilities to search, read, organize, analyze and evaluate information can be sufficiently trained and fostered.

Critical thinking requires students to be able to think rationally and creatively. In class, the teacher should inspire students to investigate and analyze problems independently to make rational and prudent judgments. In this process, students can learn to observe and perceive the world from multiple perspectives to develop comprehensive, insightful, creative and personalized thinking skills. For instance, in Unit Four "Artificial Intelligence" in Book One, there are some sentences in the text containing information that is not updated according to the latest development of AI: "It cannot invent, as scientists, novelists and artists can." "These jobs require compassion, trust, and empathy, which AI does not have. Even if AI tried to fake it, nobody would want a chatbot telling them they have cancer or a nanny robot to babysit their children." "As well as job displacement, AI has the potential to multiply inequality, both between the ultra-wealthy and the displaced workers and also among countries." "The age of 'artificial general intelligence' or when AI will be able to perform intellectual tasks better than humans is far in the distance"<sup>[11]</sup>. Therefore, the teacher needs to inspire students to ponder over these sentences by asking them to discuss the following questions:

(1) Do you agree with the author's argument that AI cannot invent, just as scientists, novelists and artists?

Please illustrate your idea with some examples.

(2) What do you think of AI's integration of technology with emotions?

(3) How do you interpret this sentence that "AI has the potential ..... also among countries"?

(4) Do you think that the age of "artificial general intelligence" is impossible or still far away?

(5) What will be the prospect of the human world if that day comes?

In the meantime, the teacher can also present some relevant video clips so that students can learn about the latest developments of AI in the world. In traditional graduate study, the concept of "teacher's dignity" makes it "difficult for teachers and students to explore academic issues equally and freely, which hinders and suppresses the courage and spirit of postgraduates in exploring and pursuing the truth, and weakens the research nature of postgraduate courses"<sup>[12]</sup>. Therefore, students have the opportunity to have a profound and comprehensive understanding of AI through free discussion and active teacher-student interactions, thus fostering their spirit of exploration and investigation.

"The focus of graduate students learning course knowledge is not on memorization and acceptance of knowledge, but on generating new knowledge and improving the innovative and research-oriented nature of the course based on questioning and reflecting on knowledge in the early stages"<sup>[13]</sup>. In this perspective, the teacher also assigns students an after-class task, a debate about the following topic: Artificial intelligence is a threat to the future of human life and human existence. The teacher needs to divide students in the class into several groups each of which should be further split into two teams, and then give some instructions about the debate: Each team should state the claim and support it with strong argumentation and convincing evidence. They can try to brainstorm for possible evidence (facts, quotations, expert opinions, statistics and examples) and decide on the most valuable items to add power to debating. In the preparation for the debate, students will express their different views about this topic and their ideas will naturally collide, which will contribute a lot to fostering their analytical and organizational ability.

In addition, in the process of debating, students can also improve their writing ability by practicing their logical and systematic thinking ability. At the end of the debate, the teacher provides their understanding of this topic from the perspectives of AI weapons, immortality, the negative influence of AI development on human beings, such as

unemployment and the alienation between people, etc., which will undoubtedly deepen students' thinking about the ethics of AI development. After all, "the rational spirit of critical thinking not only exists in the field of scientific knowledge but should also be practiced in the field of moral life and become a tool for seeking goodness"<sup>[14]</sup>.

Writing insightful essays is one of the criteria of critical thinking to explain some writing skills also plays a significant role in cultivating students' logical and rational thinking abilities. While teaching the text in each unit, the teacher emphasizes the structure of the whole text, the thesis statement, the writing of the introduction and conclusion, the topic sentence of each paragraph, the logical relationship between paragraphs and also between sentences within one paragraph, and the support for the author's main argument in one paragraph with evidence or examples, etc. Teaching and learning environment factors implicitly contribute to the development of students' critical thinking skills<sup>[15]</sup>. By drawing students' attention to their writing skills, the teacher will enable students to improve their critical thinking skills while getting a more comprehensive and insightful understanding of the whole passage so that they can apply these writing skills to finish their writing assignments at the end of each unit.

To sum up, to improve students' critical thinking ability, the teacher adopts a variety of teaching methods, such as group presentation, discussion, debate, teacher-student interaction in the form of question and answer, the combination of explanation and practice, and so on. These teaching activities can enable students to greatly enhance their subjectivity in learning, their capability to reflect on an issue from multiple perspectives, and their analytical, judgmental, evaluative and reasoning abilities based on grasping the relevant knowledge, language skills and cultural background contained in the units, which will undoubtedly increase the depth and attraction of graduate public English course, thus leading to the final success of this course.

#### **4. Course assessment and students' evaluation**

The way a course is assessed will influence teachers' teaching and students' study. Conventional graduate public English course assessment emphasizes exam results over students' performance in their daily study, which has resulted in teachers' teaching for the exam and students' studying only for the exam. This situation is bound to affect students' enthusiasm for learning English, and more importantly, students' competencies, especially their critical thinking ability, are very hard to elevate. To break the situation of students' passive learning, in course assessment, the teacher introduced a multiple-dimensional assessment mechanism, which combines process-based assessment and summative assessment. The latter is mainly based on their final exam scores, which account for 50% of students' final scores, while the former was designed to include students' performance in their group presentation, class discussion and debate, and writing practice as well as their interaction with the teacher in class. Accounting for 50% of students' final scores, this process-based assessment exerts a very positive impact on students' performance in their daily class activities and after-class assignments, which in turn elevates the teacher's passion for teaching, thus resulting in a more satisfying teaching effect.

On the other hand, in order to check whether this course design has promoted students' critical thinking development, at the end of the semester, the teacher distributed to the class a questionnaire, the result of which showed: (1) Students have improved their subjectivity in learning English by actively engaging in the collection and selection of material in the process of preparing for the group presentation; (2) Students have elevated their analytical, reasoning, and evaluative abilities by participating in class discussions and debates or by having active interaction with the teacher in class; (3) Students have been able to apply the writing skills they've learned in English class to their academic writing, resulting in the improvement of their writing quality; (4) Students have changed their stereotypes of English course, now regarding it as a course in which they can

not only improve their language skills and accumulate cultural knowledge but also deepen their thinking and broaden their perspectives of perceiving things. All of the above respects point to the fact that this research has achieved the expected teaching effect of enhancing students' critical thinking ability.

## Funding

“Young Backbone Teacher Support Plan” of Beijing Information Science & Technology University (Project No.: YBT202443)

## Disclosure statement

The author declares no conflict of interest.

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