

The Evaluation of Critical Thinking Ability Through English Speech: A Case Study of College Students Majored in Art

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Abstract: *In recent years, China has attached great importance to the cultivation of critical thinking. Under these circumstances, more and more researchers have focused on the exploration of college students' critical thinking ability. Although some analytical frameworks for assessing critical thinking ability are involved in English speaking, few of these frameworks are used to evaluate the thinking ability of college students majored in Art. In order to have a better understanding of the critical thinking ability, this paper adopts the qualitative method to evaluate critical thinking ability of them through English speech. The writer found these students' critical thinking skills need to be improved. For example, some students are lack of interpretation skills required by a good critical thinker, which led to the misunderstanding of speech topics.*

Keywords: Critical Thinking Ability, English Speech, College Students Majored in Art.

1. Introduction

In the 21st century, cultivating college students' critical thinking is gradually receiving attention. The main reason is that critical thinking skills can help college students understand complex problems and make wise and reasonable judgments (Ruan, 2012; Gambrill, 2006; McGuinness, 2013). Since the 1990s, China has also attached great importance to cultivating students' critical thinking. Chinese colleges have included cultivating students' critical thinking ability as one of their curriculum objectives and carried out a series of reforms (Zhao, 2015). Under this circumstance, the cultivation of critical thinking skills has become one of the learning objectives in English classrooms, and English teaching is combined with critical thinking cultivation. So how effective are these reform measures?

Despite the emergence of many critical thinking assessment tools internationally, such as the CCPST California Critical Thinking Skills Scale and the ICAT-CTET International Critical Thinking Ability Assessment, research on critical thinking ability assessment tools that are suitable for China's situation is still in its infancy. In addition, a large number of studies have shown that critical thinking and English oral speech are interrelated (Rosyati & Rosna, 2008; Song, 2012; Sanavi & Tarighat, 2014). However, few studies have assessed students' critical thinking ability through English speeches. Among them, there is almost no research on the college students majored on Art. College students majored on Art tend to focus on their professional strengths and neglect the study of English and other literacy courses. Therefore, exploring the critical thinking abilities of these students is of great significance for foreign language teaching. This article examines critical thinking ability of students majored in Art in a college through English speeches in their online video speaking test.

2. Critical Thinking Ability

The definition of critical thinking ability varies according to different scholars of different periods. Although it is difficult

for scholars in different fields to reach a consensus on the definition of critical thinking, people's understanding of critical ability has been deepening. Its concept has developed from "single dimension to multiple dimensions, from abstract to concrete, from theory to practice" (Sun, 2014:9). In conclusion, it is believed that critical ability is the ability to make reasonable judgments based on appreciation, analysis, evaluation, creation, etc. It requires knowledge and propensity as the basis.

3. English Speech

In general, the speech is to express one's views to the public. English speech, as the name implies, is to make speeches in English. It has certain requirements on the speaker's oral English. However, it should be noted that English speech is different from general oral English. Lucas (2010) believes that English speech is more standardized and organized than ordinary spoken English, so it requires a relatively high level of critical thinking ability of students. English speech can also strengthen students' reasoning ability, communication ability and independent thinking ability. The impromptu speech with fixed topic studied in this paper is one type of the English speech. In addition to impromptu speeches with fixed topics, other types of speeches include speeches with manuscripts, outline speeches, argumentative speeches, among others. The impromptu speech on a fixed topic has many forms. According to Sun Min (2014:32), "the speaker may be asked to explain certain phenomenon, to support or oppose an opinion, or to express feelings about a picture". This study is aimed at the second type of impromptu speech on a fixed topic—argue for or against an opinion.

4. Critical Thinking Ability and English Speech

English speech can reflect one's critical thinking ability. Therefore, speakers with good critical thinking ability will "have a clear and organized understanding of the logical relationship between concepts, the rationality of arguments, and the differences between facts and views" (Lucas,

2010:6-7). Sun Min (2014) proposed the framework of critical thinking subskills in English speech. This framework divides the criteria of critical thinking subskills according to the type and stage of English speech. These criteria mainly examine the three abilities of critical thinking - analysis, reasoning and evaluation.

English speech can not only reflect one's critical thinking ability, but also contribute to the development of thinking ability. As Ren Wen (2007:67) pointed out, "systematic speech training not only helps enhance expression ability, but also helps develop ideas, enhance self-confidence, improve communication skills, and facilitate critical thinking ability.". Language and thoughts are interrelated. Language can not only express our thoughts, but also shape our thoughts (Peng, 2000).

5. Theoretical Framework

The framework of critical thinking subskills in English speech proposed by Sun Min (2014) is adopted in this study, because it combines the characteristics of English speech and is in line with the theme of this study. As is shown in Table 1, this framework divides critical thinking ability into three skills: analysis, reasoning and evaluation. Analysis includes explanation, interpretation, classification, comparison, and identification. Reasoning includes organization, prediction, inference, and presentation. Evaluation ability includes examination, self-monitoring and self-regulation. Among them, evaluation ability "includes both evaluating others and objectively evaluating their own thinking process according to the standards" (Sun, 2014:32).

Table 1: Framework of Critical Thinking Ability

Critical Thinking Ability	Critical Thinking Subskills	
Analysis	Explanation	Interpreting and clarifying the meanings of viewpoints, concepts, behaviors, symbols, rhetoric, etc., and resolving ambiguities.
	Interpretation	Perceiving and describing the content, meanings, functions, motivation, values, rules, etc., contained in information.
	Classification	Proposing a framework of categorization for understanding, describing, and summarizing information.
	Comparison	Comparing and differentiating viewpoints, concepts, assertions; analyzing the "whole-part" relationship.
	Identification	Investigating whether a series of statements form "reasoning" and breaking down the reasoning process into assumptions, premises, and conclusions.
Reasoning	Organization	Identifying, searching, and selecting arguments that support assertions.
	Prediction	Forming a variety of problem-solving plans and predicting possible outcomes.
	Inference	Using appropriate reasoning methods to determine one's stance and viewpoint on specific matters.
	Presentation	Presenting information on concepts, methods, standards, scenarios, etc. in order to allow oneself or others to verify the processes of interpretation, analysis, evaluation, and reasoning.
Evaluation	Examination	Checking, questioning, and judging the arguments and the rationality of reasoning.
	Self-monitoring	Reflecting on the reasoning process, examining one's own viewpoints and arguments, and considering personal limitations in knowledge, prejudices, biases, emotions, motives, values, attitudes, and other factors that may affect fair and objective judgment.
	Self-regulation	Correcting and adjusting problems discovered during reflection in a reasonable manner.

According to this framework, Sun Min (2014) summarized the critical thinking subskills in English speech. One type of English speech, the impromptu speech on a fixed topic, which was analyzed in this study, involves analysis and reasoning ability (see Table 2). Analysis ability includes two aspects: one is to explain the topic of the speech, that is, to clarify the meaning of the speech topic and interpret it correctly; the other is to state the argument of the speech and present your own position. As to the reasoning, it contains three aspects: the logical coherence of the text (that is, the central argument should be consistent in the beginning, main body and end of the speech), the support of sub-arguments for the central argument (supporting arguments should be independent of each other, and the central argument should be demonstrated from multiple angles) and the evidence of supporting arguments (the data, testimony, cases and other evidence should be relevant, accurate and typical). Evaluation is not

involved because "the subskills of evaluation (such as self-monitoring and self-regulation) are not clearly reflected in the impromptu speech with fixed topics" (Sun, 2014:101).

Table 2: Framework for Critical thinking ability in impromptu speeches with fixed topics

Anal ysis	The explanation of the topic of the speech
	The statement of the central argument of the speech
Reas oning	The logical coherence of the text
	The support of sub-arguments for the central argument
	The evidence of supporting arguments
	1) Relevance
	2) Accuracy
	3) Typicality

Sun Min found that learners' interpretation of the speech topic

is relatively weak during the analysis process. It not only related to learners' critical thinking ability, but also related to their English expression ability. "Deeply understanding of words, idioms, and context may have a fundamental impact on the basis of speech" (Sun, 2014:104). No obvious errors are usually found in the presentation of the central argument. As to the reasoning ability, the students basically consider the logical coherence of the whole text, but the supporting arguments cannot reach the standard of mutual independence and logical consistency. In addition, providing relevant, accurate and typical evidence to support arguments also becomes a challenge for many learners. In impromptu speech on certain topic, critical thinking subskills interact with each other. For example, topic explanation is the basis for the following argument process. If learners have a vague understanding of the topic, it will affect the presentation of arguments.

6. Research Methods

The study was conducted in a college in China, and the participants were freshmen majored in Art (around 30 students). Students need to choose any topic from the given topics to make oral speeches in English (no less than 80 words). There are three topics to choose from: 1) How should you prepare for a job interview? 2) Is having money equal to success? 3) Everyone should go to college. After analyzing the speech of students, three speeches were selected to analyze. There are two screening criteria. One is the students' English ability, which excludes students with low oral English level and unclear expression. The second is to exclude students who choose topic one. This is because the first topic is not a speech related to opinion which is not included in the theoretical framework of this article. With the consent of the research subjects, the author transcribed the content of the students' answers, retaining repeated fragments and grammar errors (see appendix), and used the theoretical framework of this article for data analysis to evaluate the students' level of critical thinking.

7. Result Analysis and Discussion

This section analyzes the critical thinking ability of the research subjects according to their impromptu speeches. The analysis and discussion of research results is divided into two parts: analytical ability and reasoning ability of students. In the end, the author summarizes the research results of this study.

7.1 Analytical Ability

In the assessment of analytical ability, there are two evaluation indicators: interpreting the original topic and presenting the central viewpoint. In impromptu speeches with fixed topics, "explaining a given topic is the fundamental basis for determining the speech stance and conducting arguments" (Sun, 2014:101). Before expressing one's own opinions, only by understanding the topic correctly can the central argument and sub-arguments be correctly stated. Among the three research subjects, two had inaccurate or even incorrect understanding of the topic. As for the second topic (Is having money equal to success?), student A's understanding focuses on whether money is omnipotent, so

she did not directly argue whether money equals success. As for the third topic (Everyone should go to college.), student B misunderstood it as discussing her feelings about college life, so her entire speech was off topic.

When presenting the central viewpoint, student C's central argument is vague and self-contradictory. Student C first introduced herself and then expressed her central point, which states "Today, I will have a speech here. It's about everyone should go to college. Not everyone has to go to college, but it's a good tool to go to college." She first showed in her speech that everyone should go to college. Afterwards, she expressed the opposing view, which is "Although not everyone should go to college, it is very beneficial." Thus it can be seen that her expression of the central argument is contradictory and unclear. Student A's understanding of the topic is inaccurate. She began by stating her central argument directly—"Money is not everything." This deviates from the meaning of the speech topic. Student B did not get straight to the point and state the central argument, but instead presented the central viewpoint at the end, which is "So the first year in college isn't that easy for me, I still enjoy my college life." But her understanding of the speech topic was also incorrect, and the central argument also deviated from the topic of the speech.

7.2 Reasoning Ability

The evaluation criteria for reasoning ability mainly include whether the logic of the text is consistent, whether the sub-arguments provide support for the central argument from multiple perspectives, and whether the arguments are fully supported by sufficient evidence. The first criterion for evaluating reasoning ability means that the speaker's viewpoints in the beginning, main body, and ending of the speech should be consistent (Sun, 2014). Except for Student C, the speeches of other research subjects basically meet logical coherence of the text. For example, student A begins by stating their central argument, "Money is not everything," and then argues around this central argument. Finally, they summarize their viewpoint.

The second evaluation criterion is about the supporting of sub-arguments to the central argument. On the one hand, sub-arguments should be presented from multiple angles and perspectives to support the central argument. On the other hand, the sub-arguments should be independent of each other and not overlap (Sun, 2014). Among the three research subjects, student A and student B did not approach the central argument from different perspectives. For instance, student B proposes two sub arguments, one is " College is a space where the students can learn more and new knowledge and experience in it. ". It means students can learn new knowledge and experience in college. The second is " No matter what reason people are studying in the college, studying in the college is just a preparation for their life. ". The meaning is that students who receive higher education all want to prepare for their future lives. It can be seen that these two sub-arguments did not argue from different perspectives. They may intersect or overlap because learning new knowledge is a way to prepare for their future life.

In the process of reasoning, the third evaluation criterion is about evidence. The relevance, accuracy, and typicality of

evidence are key factors determining the rationality of arguments. The evidence is generally based on case studies (including personal experiences), data, testimony, etc. (Lucas, 2010). In impromptu speeches with fixed topics, few people provide precise data to support their viewpoints due to the inability to referring to materials. Among the three research subjects, student A's reasoning process basically meets the criterion of relevance, but the information is inaccurate and the case is atypical. Student B's reasoning generally meets all the requirements in terms of relevance, accuracy, and typicality. Next, the author analyzed each student one by one in detail. student A explained her central argument (that money is not everything): "Money can't buy many things, such as friendships, relationships, loves, and happiness." She believes that money cannot buy true feelings and happiness. Next, she used some wealthy people as examples to further explain her viewpoint:

"There are some rich people who are lonely and unhappy because rich people have more things to worry about. For example, if that a rich man has a company that can make him a lot of money. Then that a company should take more care of. Therefore, that a man has to do everything to try to keep it up. Another reason, if that a man has to spend that much time worrying about something, then he won't have too time to make friends or spend times with his family."

Although this case is relevant to student A's viewpoint, there are shortcomings in typicality and accuracy. For example, in general, the boss is responsible for overall decision-making and assigning tasks to employees, which is not what student A believes: the boss should complete all the company's tasks. In addition, student A did not accurately indicate which company's owner it was, so it lacks typicality and persuasiveness. Student B uses personal experience as evidence. She selected representative experiences related to her college life. The case meets the requirements in terms of relevance, accuracy, and typicality, demonstrating her central point: although college life is not simple, she enjoys it very much. Student C did not elaborate on the first sub-argument (i.e. College is a space that the students can learn more and new knowledge and experience in it.), so the argument lacks evidence and persuasiveness. The second sub-argument is: "In my opinion, no matter what reason people are studying in the college, studying in the college is just a preparation for their [em...] for their life.". To support this viewpoint, student C listed different reasons why people choose to go to college:

"For example, someone want to be to go to a further study after their graduate from the college. People hope to find a good job after their studying in the college. And also some people wish to exchange their present situation through studying in a college."

These are closely related to Student C's second sub-argument, but lack detailed descriptions. These also slightly lack accuracy and typicality. For example, in terms of the last case "some people wish to exchange their present situation through studying in a college" (student C's English expression is incorrect, she wants to express: changing one's situation through university learning), she did not explain how one's situation can be changed through hard work in university. Moreover, the reasons mentioned by student C in the first two

cases for going to college (one is to continue studies and the other is to find a good job) may also become a way to change their situation, so these cases have overlapping meanings.

7.3 Conclusion

According to results, students' critical thinking ability needs to be improved. Regarding analytical ability, two research subjects were unable to accurately understand the topic, so they deviated from the speech topic when stating the central argument. The other research subject, although understanding the meaning of the speech topic, was unable to clearly state the central argument. According to the assessment of reasoning ability of the three research subjects, the logical coherence of their speeches and the support of sub-arguments for their central argument need to be strengthened. Finally, regarding the selection of evidence, all three research subjects were able to choose relevant case studies to prove their arguments, but the cases lacked accuracy and typicality. This is consistent with the research findings of Sun Min (2014): students have weak explanatory abilities, and insufficient evidence to support their arguments. However, Sun Min (2014) believes that the overall logic of students' speeches is basically consistent, while the author found that students still need to improve it. The reason for this difference may lie in different research subjects and locations. Sun Min studied students from a foreign language university, while this article focuses on college students majored in Art who overlook the study of literacy class.

8. Research Implications and Limitations

This study indicates that the critical thinking ability of college students majored in Art needs to be strengthened. Therefore, it is recommended that college English courses strengthen the students' critical thinking awareness, develop the habit of self-reflection, and gradually improve their critical thinking ability. For example, increasing group discussions or pair discussions in classroom activities is beneficial for cultivating students' critical thinking abilities.

There are two main limitations to the research. Firstly, as the sole evaluator, the evaluation of students' critical thinking ability by the author is subjective and may be biased. For example, when students present arguments, the author has her own subjective opinions on the relevance, accuracy, and typicality of the students' arguments. Secondly, due to the nature of impromptu speech activities, the assessment of students' critical thinking ability did not include evaluation ability evaluation, so the study is not comprehensive.

Appendix

Student A: Money is not everything. Money can't buy many things, such as friendships, relationships, loves, and happiness. There are some rich people who are lonely and unhappy because rich people have more things to worry about. For example, if that a rich man has a company that can make him a lot of money. Then that a company should take more care of. Therefore, that a man has to do everything to try to keep it up. Another reason, if that a man has to spend that much time worrying about something, then he won't have too time to make friends or spend times with his family. Therefore,

money is not everything.

Student B: Going to college is an exciting thing for me because I have been studied so hard to realize this dream. When I went to the college, I had good imagination about the college life, but the first year in the college makes me recognize that college life [emm...] the first year in college life and a lot of time in studying. Before I went to the college, I think the college life would be worries and I just couldn't do what I want. But I didn't expect that I still need it to pay so much time on study. Everybody around me went to the library and I would be the worry that I [emm...] if I played, so the college life was not that easy. When I lived far for [emm...] far away from my home, I was so free. I enjoyed the freedom so much. My parents always kept their eyes on me, so I couldn't be myself when I lived with them. Living in the dormitory, I could stay up. And joining the activity at night is the young guys' right. So the first year in college isn't that easy for me, I still enjoy my college life.

Student C: Hello, everyone. My name is Fan Hao. Today, I will have a speech in here. It about everyone should go to college. Not everyone has to go to college, but it is a good tool to go to college. College is a space that the students can learn more and new knowledge and experience in it. Of course, different people have different reason to study in college. For example, someone want to be to go to a further study after their graduate form the college. People hope to find a good job after their studying in the college. And also some people wish to exchange their present situation through studying in a college. In my opinion, no matter what reason people studying in the college for, studying in the college is just a preparation for their [emm...] for their life. All in all, study not only can learn lots of new knowledge form the books, but also can learn much more [emm...] more necessary experience such as how to arrange time and how to cooperate with their people. It is very important for their further work and life. Thank you for your listening.

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