



# Cultivating Critical Thinking through Peer Assessment in the English Debate Course for Chinese English Majors

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**Abstract.** This paper examines the role of peer assessment in fostering critical thinking (CT) dispositions and skills among Chinese English majors in a debate class. Through content analysis of interviews and reflective journals, findings suggest that while peer assessment appears to have a positive impact on certain CT dispositions—such as reflection, fair-mindedness, open-mindedness, inquisitiveness, and truth-seeking—the relationship between peer assessment and the development of higher-order CT skills, such as evaluation, explanation and self-regulation, remains uncertain.

**Keywords:** peer assessment, critical thinking, disposition, skill, debate

## 1 Introduction

Critical thinking (CT) is widely recognized as a fundamental cognitive skill, crucial for both academic success and informed participation in contemporary society. Debate can be used in the classroom to cultivate CT skills.<sup>[8][12][13]</sup> However, with numerous activities occurring during and after debate classes, understanding how each component contributes to critical thinking will be crucial in illuminating the ways in which these skills are developed. This study focuses on whether peer assessment in the debate class plays a positive role in developing CT skills and dispositions.

## 2 Literary Review

There is a growing body of research on the link between peer assessment and critical thinking.<sup>[1][6][7][14][16]</sup> Related studies in China have also produced meaningful results. Xu, Yang, and Chen found that peer interactions among 222 non-English majors mostly involved low-level cognitive processes, with less focus on higher-level thinking.<sup>[15]</sup> Li Yan and Li Tao studied peer feedback in English writing and found that students who received peer feedback developed a more positive CT disposition, particularly in self-confidence, over a year. In contrast, students not receiving feedback showed declines in CT skills.<sup>[9]</sup> Other studies also support the benefits of peer evaluation for critical thinking and writing skills.<sup>[4][5]</sup> Apart from writing courses, there is limited research

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exploring the impact of peer assessment in debate classes in the Chinese context. <sup>[11]</sup> The available studies suggest that its application in debate settings is under-researched. This paper aims to further shed light on this issue.

### 3 Research Design

#### 3.1 Research Questions

Critical thinking, according to the Delphi panel, has two dimensions: cognitive skills and affective dispositions. Cognitive skills refer to the cognitive processes essential to critical thinking, such as evaluating, reflecting, or synthesizing information. Affective dispositions, on the other hand, are the personal traits that motivate individuals to apply these skills, such as curiosity, rationality, or a sense of fairness. <sup>[2][3]</sup> This study aims to explore whether peer assessment enhances the CT skills and dispositions of all stakeholders, including both the evaluatees and evaluators and explore the underlying reasons.

#### 3.2 Research Methods

This study adopts qualitative research methods through interviews and analysis of reflective journals. Several reasons justify the choice of these methods. First, the sample size is relatively small, with 60 English major students in the debate class, making it manageable for qualitative approaches. Since students' reflective journals are part of their process-based assessment, the additional effort required to analyze their experiences and evaluate the impact of peer assessment is minimal. Second, critical thinking involves complex, internal cognitive processes which are difficult to fully capture with quantitative data. Qualitative methods, like interviews and reflective journals, enable researchers to explore how participants develop and apply certain CT skills. Finally, qualitative research facilitates an in-depth investigation into shifts in CT dispositions, such as whether students become more open-minded, curious, or less judgmental through peer assessment. While quantitative methods like the California Critical Thinking Skills Test (CCTST) and the California Critical Dispositions Inventory (CCTDI) can compare students' CT skills and dispositions before and after a course, it's hard to prove that improvements are solely due to peer assessment. Other factors, like more debate practice or increased reading, also contribute to CT development.

**Interviews.** The interviews are voluntary, with students responding to open-ended questions about their experiences with peer assessment. Some sample questions, along with their intended purposes, are listed in Table 1 to illustrate their alignment with the CT skills and dispositions described in the Delphi Report. According to the teaching content and students' responses, additional questions were asked which cannot be exhausted here.

**Table 1.** Questions and Purposes for Interviews

Questions	Purposes
1) How did the peer assessment process influence your approach to forming arguments during debates? You may refer to the argument structure and strategies of case building in BP debating, including reasoning, use of evidence, impact analysis, and comparative argumentation.	This checks whether students reflected on their argumentation skills after receiving feedback and recognized areas for improvement based on peer feedback.
2) In what ways did evaluating your peers enhance your own ability to analyze and critique arguments?	This question encourages students to reflect on how giving feedback strengthened their critical thinking skills including analysis and evaluation.
3) How has peer assessment influenced your ability to consider different perspectives or viewpoints in debates?	This question focuses on students' open-mindedness and willingness to consider diverse perspectives.
4)How did participating in peer assessment help you develop skills like identifying fallacies, or weighing different arguments?	This question focuses on students' open-mindedness and willingness to consider diverse perspectives.
5)How did participating in peer assessment help you develop skills like identifying fallacies, or weighing different arguments?	This encourages students to connect peer assessment to specific critical thinking skills such as explanation and comparison.
6) Have you noticed any changes in your confidence or willingness to engage in debates since participating in peer assessment? If so, what has changed?	This explores the development of critical dispositions, such as intellectual courage or self-confidence.
7) Do you think peer assessment has made you more reflective or self-critical of your debating performance? Why or why not?	This focuses on self-regulation skills such as self examination and self-correction.
8) What aspects of the peer assessment process have you found most helpful in improving your critical thinking, and why?	This identifies specific elements of peer assessment that contribute most to their growth in critical thinking.

**Reflective Journals.** Writing reflective journals effectively helps students deepen their understanding and identify areas for improvement.<sup>[10]</sup> Before starting, it's important for the teacher to explain that the purpose of the journal is to promote self-awareness and deeper learning through CT, not just to record events. Students are encouraged to be honest in their reflections, and are assured their journals will remain confidential and won't impact their grades negatively, even if they express challenges or concerns about peer assessment. Guiding questions are provided to help students structure their reflections, tailored to the content they are assessing. For example, after judging a debate and providing feedback, students can use specific questions to guide their journal entries.

1) Did I take the position of an average reasonable person when assessing the debate?

2) Did I intervene in the debate?

3) Did I properly assess the strength and relevance of the arguments that each team presents?

4) Did I assess engagement properly?

5) Did I assess the relevance of materials by looking at the burdens a team has to meet in a debate?

6) Did I assess different metrics of the debate and evaluate the strength of each metric based on the teams' performance?

7) Did I give fair ranking, comprehensive written justification and constructive feedback?

Students are not required to cover all the listed aspects; instead, they should focus on the ones most relevant to their peer assessment experience. They are also encouraged to explore new angles and extend beyond these questions. This flexibility is one of the strengths of the qualitative approach, as it accommodates complexity and welcomes unexpected viewpoints.

## **4 Research Results and Analysis**

### **4.1 Critical Thinking Dispositions**

Content analysis of interviews and reflective journals revealed several important findings regarding the impact of peer assessment on students' CT dispositions. Over 80% of students reported that peer assessment positively influenced key dispositions, such as reflection, fair-mindedness, open-mindedness, inquisitiveness, and truth-seeking.

Peer assessment encouraged students to not only evaluate their peers' speeches and debates but also reflect on their own attitudes and reasoning. For instance, three students remarked that judging made them pay more attention to structure and clarity in their own speeches. The process also promoted fairness, as students had to objectively evaluate arguments based on reasoning and evidence, even when they disagreed with the conclusions. This encouraged greater tolerance for opposing viewpoints.

As recipients of feedback, students learned to embrace both positive and negative criticism as opportunities for growth. They became more open to diverse perspectives and more willing to collaborate with peers. Notably, 72% of students reported an increased curiosity and desire for truth-seeking, as peer assessment required them to critically evaluate evidence, leading to a more inquisitive and reflective mindset.

### **4.2 Critical Thinking Skills**

Peer assessment's effect on specific CT skills like evaluation and explanation was less clear. While 73% of students reported improvements in identifying arguments—a key analytical skill—the impact on higher-order skills, such as explanation and self-regulation, was ambiguous. Many students effectively summarized peers' arguments and identified reasoning gaps, but were uncertain about peer assessment's role in enhancing advanced CT skills.

Some interviewees mentioned that their evaluations often differed from those of the teacher and high-performing peers, leading to doubts about their judgment accuracy. Reflective journals revealed frustration with assessing debates with equally persuasive arguments and concerns about personal biases.

There may be several reasons for the lack of significant improvement. First, higher-order CT skills such as explanation take time to develop, but the course lasted only one semester with one lesson per week. Even with reading and writing homework, students had limited opportunities to practice these skills intensively. Second, primary and secondary education in China tends to prioritize preparation for standardized tests over the development of critical thinking. Lastly, some students acknowledged in their journals that they prioritize language proficiency over CT skills as English majors, resulting in lower motivation to fully engage with the course.

Despite these uncertainties, feedback quality improved over the semester. Students became better at focusing on the content of debates and providing well-reasoned evaluations. Additionally, 63% of students found that evaluating peers was more beneficial for developing CT than being evaluated, suggesting that the accountability of peer assessment enhanced their own CT skills.

## 5 Conclusion

This paper explored the impact of peer assessment in a debate class on the development of CT dispositions and skills among English majors. Results show that peer assessment contributed positively to dispositions. Students reported improvements in argument identification, reflecting gains in analytical skills, but expressed uncertainty about performing higher-order skills such as explanation and concerns about providing fair evaluations when judging highly contentious debates or parallel debates.

However, the study's limitations include a small sample size, restricting the generalizability of results. The study also lacks more robust quantitative data. Future research should expand the sample size and incorporate quantitative measures to provide a more complete understanding of peer assessment's influence.

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