

# Research on the Promoting Effect of Debate Course on the Development of Critical Thinking Skills

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**Abstract:** Debate course offers an effective and practical way to the critical thinking instruction. Various critical thinking skills, especially, skills of analyzing, evaluation, and reflecting can be developed through different tasks in debate, such as motion analysis, argument construction, refutation, and reflection. Students' active participation guarantees the effective learning experience and increased learning outcome in debate course, and the motions chosen from real life issues build connection between debate training and problem-solving ability in real life.

**Keywords:** critical thinking, English debate, BP debate

## 1. Introduction

The origin of critical thinking can be traced back to Socrates in ancient Greece. The term “critical” originates from “kriticos” in ancient Greek, which means question, understand and analyze. Various definitions for critical thinking have been proposed by different scholars and institutions. Dr. Richard Paul defines critical thinking as “a system of thinking that unlocks all other systems”, he regards critical thinking as the art of living an examined life. According to the definition given by the National Council for Excellence in Critical Thinking, critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and evaluating information gathered from, or generated by observation, experience, reflection, reasoning, or communication, as a guide to brief and action.

Critical thinking plays crucial role in people's personal development, academic study, career life, and daily life, influencing people in their information processing, analyzing, reasoning, communication, decision-making and development of thinking quality. This is the reason why critical thinking is also known as “higher-order thinking” and “problem-solving thinking”. Meanwhile, the rapid development of Artificial intelligence and computer science poses great challenge to both individual thinking quality and education, making people attach more importance to “how to make thinking better”. In China, critical thinking instruction is regarded as an essential part of education in schools and universities. The English Curriculum Standards list thinking quality as one of the core competences, emphasizing the cultivation of students' logical thinking, critical thinking, ability to analyze and evaluate. However, problems still exist in the critical thinking instruction, firstly, categories of cognitive skills and sub-skills in critical thinking should be further clarified; secondly, the traditional ways of learning, such as reading, listening to lectures, memorizing only have little effect in building people's thinking quality, more effective teaching methods should be introduced and practiced.[1]

Debate course offers an effective and practical way to the critical thinking instruction. Debate, which is deeply rooted in development of human civilization, has a long history both in China and in the West. Nowadays, debate also gains its worldwide popularity in different social contexts, enabling people to take deeper look at issues, analyze the complicated matters, make right decisions, and solve problems more effectively. Debate takes different forms: traditional debate, direct-clash debate, conference debate, parliamentary debate, and so on, these forms share the similar essence, while they differ in rules and formats. This paper mainly focuses on British Parliamentary debate (BP debate in short) which is featured with good organization and efficiency, since it is widely adopted as the debate format in many important debate competitions and debate courses in the world.[2]

## 2. The correlation between critical thinking and debate

Critical thinking covers broad range of cognitive activities, such as organization, analysis, reasoning, interpretation, argument, questioning, inference, evaluation, self-regulation and so on. Therefore, the critical thinking instruction, which is a systematic project, needs to include various categories mentioned above to guarantee the different facets of critical thinking are developed. However, study shows that the focus of critical thinking instruction is not the same in different subjects. In Humanities, such as History, Linguistics, and Education, analysis and evaluation are most commonly emphasized, while in Science and Technology, reasoning, deduction and creativity are more essential. In debate, which is known as mental gymnastics, the similar cognitive activities are involved. Basically, debate is the effective information exchange based on oral presentation, argument construction, logical reasoning and refutation, debaters usually organize information, examine evidence, offer explanation to better support their own stance, at the same time, they ask questions, analyze opponents' evidence, evaluate opponents' arguments to give refutation or attack. Therefore, critical thinking and debate are highly relevant and mutually supportive, critical thinking makes debate profound and meaningful, while debate provides a systematic and feasible method for the development of critical thinking ability.

In educational environment, to build critical thinking ability requires students' participation, active learning, reflection, assessment and cooperation. Students should be encouraged to engage in the whole learning process, thinking and taking part in teaching activities actively to gain more effective learning experience. Also, opportunities should be given for them to reflect and evaluate their own or other's performance, which will lead to increased learning outcome and better knowledge retention. Debate, especially BP debate also requires debaters' active participation in different tasks in the whole process, such as motion analysis, composing, argument construction, refutation and reflection. Different roles allocated to individual debaters, distinct responsibilities and individual evaluation guarantee personal engagement and avoid free-riding to the utmost extent.[3]

It is believed that in critical thinking instruction, the teaching activities and learning tasks should be designed based on the issues, situations and problems in real life to build connection between learning and doing, to motivate students, and to better facilitate students' problem-solving ability in their lives as well. The motions chosen in BP debate generally fall into two categories: policy motion and value motion, debaters argue about the necessity, importance and feasibility to pass a policy or prevent a policy from being passed in policy motions, while they judge and weigh value by comparing and evaluating to decide whether certain idea is correct or incorrect in value motion. Both of the two types of motion focus on the topics or problems in real life, and definitely inspire debaters' deep inspection into the relevant social issues.

*Table 1: Critical thinking skills that can be developed in BP debate*

Critical thinking skills	Sub-skills	Procedures or tasks in BP debate
Interpretation	Categorization Decoding significance Clarifying meaning	Motion analysis Constructive speech Flowing
Analysis	Examining ideas Identifying arguments Analyzing arguments	Researching Motion analysis Refutation and Rejoinder
Evaluation	Assessing claims Assessing arguments	Argument construction Refutation and Rejoinder POI
Inference	Querying evidence Conjecturing alternatives Drawing conclusion	Refutation and Rejoinder Case development Counter-case development
Explanation	Stating results Justifying procedures Presenting arguments	Stock issues Constructive speech Rebuttal speech
Self-regulation	Self-examination Self-correction	Reflection Evaluation

Table 1 shows the basic critical thinking skills, the detailed sub-skills, and the procedures and tasks in BP debate in which the relevant critical thinking skills can be developed. Generally, the knowledge about critical thinking and systematic practice are two crucial factors in the development of critical thinking skills. In debate course, various tools and methods of critical thinking, logical thinking, and fallacy identification are introduced to make sure students can construct sound arguments, avoid

fallacies, and present logically. On the other hand, debate offers opportunities to use these critical thinking theories and tools through motion analysis, researching, argument construction, refutation, and reflection. The systematic training and practice of debate not only improve students' oral communication skills, but more importantly, also promote the development of their critical thinking skills.

### 3. Develop critical thinking skills in debate course

BP debate format is broadly used by International Debate Education Association and Foreign Language Teaching And Research Press. There are four teams with two debaters in each: First Proposition, First Opposition, Second Proposition, and Second Opposition, competing at the same time with two propositional teams on the Government bench and two oppositional teams on the Opposition bench. Before the debate, debaters need to do the motion analysis based on the type of the motion by defining key terms, setting the strategies, and collecting relevant information. During the debate, eight debaters take turns to present speeches, argument construction plays a critical part in deciding the quality of the speeches, fallacies should be avoided to guarantee the arguments are sound. It's an important duty for the debaters to give refutation based on their opponents' performance, since it is believed that silence means admission. Point of Information (POI in short) provides debaters from different sides opportunity to communicate directly on the divergent issues, it is also regarded as a good chance to challenge or attack the debaters from the opposite side. After debate, different tasks are assigned for debaters to reflect on their own and others' performance, adjudicators also present evaluation and suggest ways to improve. Critical thinking instruction can be carried out in different tasks in debate, with each task focusing on specific critical thinking skills.

#### 3.1 Motion analysis and development of critical thinking skills

The term "motion", which is also known as resolution in debate, refers to the issue under discussion, or the statement of approval or rejection. For debaters, analyzing the given motion from different perspectives before the debate is quite essential since systematic and profound exploration of the motion and beforehand preparation lay important base for the successful debate. Motion analysis usually follows strict logic according to the different types of motion. In policy motions, motion analysis contains the necessary factors in policy-making, including need, plan, agent of action, funding, enforcement, solvency and so on, while the analysis of value motion usually covers the aspects of context, hierarchy of value, criteria, proof. In most cases, debaters have very limited time to do the motion analysis, especially in debate competitions which follow the BP debate format, the motion is released 15 minutes before the competition. Therefore, in debate course, critical thinking tools are introduced into the motion analysis to make it more logical and efficient. Among various critical thinking tools, Paul-Elder Model (PEM) is especially important. PEM consists of two part: elements of thinking, and intellectual standards of thinking.

*Table 2. Using PEM in motion analysis*

Elements of thinking	Factors in motion analysis
purpose	To make a plan to solve a certain problem. To stop a plan from being carried out. To propose an alternative. To weigh value.
points of view	Proposition Opposition
concepts	definitions, theories, philosophical ideas, criteria
assumptions	propositional strategy oppositional strategy
questions	status quo, necessity, plan, solvency...
information	evidence and supporting credibility of information: source, accuracy, updatedness, relevance
inferences	connection between different pieces of information conclusion to be drawn reasoning
consequences	benefits and harms advantages and disadvantages

Table 2 shows the essential factors in motion analysis based on the elements of thinking in PEM. The table suggests that all the elements of thinking can be developed into concrete ideas and tasks in the context of debate, which covers all the necessary details in motion analysis. PEM provides students with a practical tool to take look at the same issue from different angles, by following the eight elements, students can make an overall analysis of the given motion in a logical and highly-structured way. Meanwhile, students' understanding of this critical thinking tool is reinforced through motion analysis and debate tasks, and these critical thinking skills developed in debate context will definitely transfer to analyzing skills and problem-solving skills in other context.

The second part of PEM is intellectual standards of thinking, which contains nine different criteria that can be used to evaluate the quality of thinking.

*Table 3: Intellectual standards and checklist of questions*

Intellectual standards	Questions to be asked
clarity	Is it understandable? Can I explain it? Can I give an example?
accuracy	Is it true? What is the source of information? How to check on it?
precision	Can I make it more specific? Can I provide more details?
relevance	How does the information relate to the issue? How do different pieces of information relate to each other? How does my argument relate to my partner's / opponent's?
significance	Is it the most important issue to address? How does it affect other matters? How to measure the importance?
depth	Which issue should I take deeper look at? What is the complexity in the issue?
breadth	How to analyze the issue from other angles? What are the other factors to consider?
logic	Is it sound or unsound? Is there any fallacy?
fairness	Is it objective? Do I base the argument on facts?

Table 3 shows the Intellectual Standards brought forth by Richard Paul and Linda Elder in their book *Critical Thinking and the relevant questions* raised to check whether the thinking quality is high or not. The Intellectual Standards can be applied in the evaluation of motion analysis and argument construction in debate, by asking questions in the checklist, students can better reflect on their work, find the flaws or fallacies and ways to improve.

### **3.2 Argument construction and development of critical thinking skills**

Argument construction is the key task in BP debate, since the debaters mainly rely on arguments to deliver opinions and defend position. Therefore, in debate course, critical thinking tools are applied to the argument construction to help students analyze logic, examine evidence, and draw inference. One of the most commonly used critical thinking tool is Toulmin Model (TM in short). TM, which is proposed by the British philosopher and educator Stephen Toulmin, mainly contains three elements: claim, data, and warrant. Claim is the statement about facts, values, or policies, data is the evidence used to support the claim, and warrant is the connection between claim and data. In argument construction, the three elements can be used to make the argument logical and sound, and to identify fallacies committed in argument construction.

In debate course, students are guided to improve their arguments by using TM. Firstly, in choosing and stating the claim, students analyze the statement about a certain issue to make sure it is clear and accurate, without any logical ambiguity or misleading expression. Secondly, students examine the quality of data they use to support the claim by checking whether the information is accurate, objective, updated, and relevant to the claim, the source of information is also considered to increase the credibility of the evidence. Thirdly, students need to make sure a clear and strong inference can be identified between claim and data to check whether the argument is sound or unsound. By constructing

arguments through TM, students' critical thinking skills of assessing claim, examining idea, analyzing and clarifying can be further developed.

In BP debate, it's quite common for students to commit fallacies in their argument construction. Fallacies may occur when any of the three elements goes wrong. If the claim contains unclear diction, logical ambiguity, or misplaced emphasis, it commits the fallacy of Amphibole, Equivocation, and Accent. In most cases, fallacies are committed because the quality of evidence is not satisfying. To be more exact, if there is a lack of evidence, the fallacies, such as Missing Evidence, Begging the Question, and Tautology would be committed; the subjective evidence or evidence concerning personal feeling or personal preference may lead to the fallacies called Subjectivism, Appeal to Emotion, and Ad Hominem Attack; fallacies named Red Herring and Evading the Issue may occur if the evidence does not directly link to the claim; Hasty Generalization is committed if the claim is reached based on insufficient data. Fallacies also occur when no clear warrant can be identified, typical fallacies of this type include Slippery Slope and False Analogy. Identifying fallacies committed in argument construction promotes the development of students' critical thinking skills of analyzing and querying.

### ***3.3 Refutation and development of critical thinking skills***

Refutation, which is regarded as the "heart of debate", provides debaters from two opposite sides with opportunity to question and confront directly. In refutation, debaters ask questions about the unclear points, question the credibility of information, and point out flaws and fallacies in their opponents' debate to show their own arguments make more sense. To give strong and meaningful refutation, debaters must listen carefully to opponent's speech, understand their strategy, analyze the logic, examine the evidence, making sure whether the arguments are sound or unsound, or whether the information is accurate, objective, updated. Debaters can follow the intellectual standards of thinking in PEM to evaluate their opponents' debate. Any argument from the opposite side that fails to meet the standards gives debater a good chance to refute, which definitely leads to the reduced credibility or value of their opponents' debate. In order to make the refutation clear and logical, the presentation of refutation also follows good logic. It is suggested that debater first repeats the argument which is incorrect or illogical in the speech, then gives refutation by pointing out directly the mistake or fallacy committed in the speech, next, replaces the incorrect or illogical argument with the correct one, and finally emphasizes the necessity and importance of correcting the mistaken argument. Good refutation requires debaters' effective listening, flowing and logical thinking, on the other hand, the critical thinking skills of decoding the significance, examining the logic, querying the evidence, and evaluating the argument are practiced in the process of organizing refutation and presenting refutation.

### ***3.4 Reflection and development of critical thinking skills***

Reflection after the debate is quite essential since it gives debaters a chance to look back on their own performance, focus on the problems and find ways to improve. Self-reflection, which is an important critical thinking skill, generally falls into two categories: self-examination and self-correction. Both of the two skills can be applied to after-debate reflection to help debaters with the analysis and evaluation of their debate, and to promote the development of their critical thinking skills. Firstly, debaters examine their debate by asking the questions: do they fulfil the debaters' duty? Is the information they use credible? Is the logic sound? Is the refutation strong enough? They also examine their delivery, manner, and time control, since these factors matter in debate as well. Secondly, they analyze the possible reasons that lead to the problems in their debate, and find ways that help to improve. Besides the self-reflection, evaluation from adjudicators and other debaters is also necessary and important in that it provides a more objective feedback.

## **4. Conclusion**

To conclude, different categories of critical thinking skills can be developed in debate course, with the skills of analysis, evaluation, and reflection emphasized. Students should get involved actively in the whole process to get better learning experience. What's more, motions in debate should be selected from the issues and problems in real life to build connection between debate training and problem-solving in real life.

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