Developing Learner Critical Thinking Through

Public Forum Speeches

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Abstract

This paper introduces a project-based task called the public-forum speech project and shows that it helps develop learner critical thinking skills in addition to language skills. The paper begins by proposing a definition for critical thinking based on the education guidelines provided by MEXT and previous definitions in the academic literature. The project is then outlined in detail with an analysis of each of its parts in terms of their relationship to critical thinking. Next, the results of a learner survey are analyzed to show that the public-forum speech project can help improve learners' English production and critical thinking skills. The survey demonstrates that the project is likely to improve learner critical thinking due to the fact that learners had high levels of engagement, believed that their thinking skills improved, and were willing to change their minds. Finally, ideas for further research in this seldom studied area of education are presented.
1. Introduction

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) sets the standards and goals for all public education in Japan. In 2008, it published the Basic Plan for the Promotion of Education which set out to comprehensively change the education system of Japan to meet the challenges of the future. In addition to providing learners with "fundamental and basic knowledge and skills," the plan calls for teachers to develop learners' thinking and analytical skills, which this paper will demonstrate is the same concept as critical thinking skills in the academic literature.

In addition, task-based and project-based teaching methods, while not universally accepted, are increasingly popular due to the high levels of learner engagement and authenticity of the language they produce. Beckett and Miller note that:

The most commonly reported positive outcome of project work is linked to the authenticity of students' experiences and the language that they are exposed to and use. While engaged in project work, students partake in authentic tasks for authentic purposes – both conditions sadly absent from many language classrooms. (Beckett & Miller, 2006, p. 24)

It has also been argued that lecture-based teaching produces particularly poor critical thinkers and unusually good short-term memorizers (Paul, 2005). Thus, project-based activities, which engage learners, are more likely to produce critical thinkers than traditional lecture style classes.

Based on this assumption, the public-forum speech project was created to develop learners' critical thinking skills in addition to language skills. A public forum is a place for experts and concerned lay people to voice their opinions and concerns before a
public audience with the hope of informing and persuading them. In addition, the audience usually has a chance to offer questions to the speakers. The public-forum speech activity was designed to recreate the same type of experience in the classroom.

This paper analyzes what critical thinking is based on the academic literature, and proposes a public-forum speech activity to be used in the TESOL classroom to improve critical thinking along with English skills. It also introduces evidence that suggests that this activity is effective at building critical thinking skills in EFL/ESL learners.

2. Literature Review

Recently, the term, critical thinking, *nihanteiki shikou* in Japanese, has frequently been cited in academic literature (Kusumi et al, 2011; Takimoto, 2011) as well as in class materials related to debate activities (Nakajima, 1997; Matsumoto, 2009). A number of researchers have defined critical thinking skills (Paul, 1984; Paul & Scriven, 1987; Ennis as cited in Ten Dam & Volman, 2004; Long, 2003) and their definitions are in large part consistent with that of MEXT's.

MEXT's Basic Plan for the Promotion of Education considers three things important in order to create "solid academic abilities" in children:

1. Basic knowledge and skills
2. Thinking and analysis skills
3. A positive attitude towards learning

(MEXT, 2008)

The main focus of this paper is the second ability, which MEXT defines as "abilities to think logically as well as critically, to pass fair judgments and to express themselves well which are needed to solve problems, with the use of knowledge and skills"
(MEXT, 2008). In short, there are five important characteristics that constitute thinking and analytical skills according to MEXT; learners with these skills are:

(1) Logical
(2) Critical
(3) Produce fair judgments
(4) Express themselves well
(5) Can solve problems

Regarding point (5), MEXT expects learners to be able to "... face rapid social changes in the future and lead independent and happy lives" (MEXT, 2008). Some of the coming social changes and problems listed by MEXT in its paper include a declining birthrate necessitating a reconstruction of social and educational systems, increasing globalization leading to the need to coexist with people from various backgrounds, environmental issues, a changing employment environment, and a shifting sense of values (MEXT, 2008). The public-forum speech project is designed to address social issues similar to these while using critical thinking skills and English.

Although MEXT calls this group of skills thinking and analytical skills, these skills are typically referred to as critical thinking skills in academic literature. Paul has written extensively on the topic of critical thinking (Paul, 1984; Paul & Scriven, 1987; Paul, 2005). He gives a robust definition of critical thinking in his presentation with Scriven (1987):

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered . . . as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision,
consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.

It is clear that MEXT's definition and Paul's overlap almost exactly, though Paul's definition contains a more detailed description. While MEXT says thinking should be (1) logical, Paul says critical thinking involves sound evidence and good reasons. While MEXT says thinking should be (2) critical, Paul says critical thinking involves conceptualizing, applying, analyzing, synthesizing, and/or evaluating information. MEXT says it should (3) produce fair judgments, and Paul says it involves depth, breadth, and fairness. MEXT wants this thinking to produce (4) good self-expression, while Paul says critical thinking involves clarity, accuracy, precision, consistency and relevance; all skills related to expressing oneself well. Finally, MEXT asks for (5) problem solving skills, and Paul states critical thinking is used "as a guide to belief and action." From this, it is clear that MEXT is requiring that teachers develop learners' critical thinking abilities, and these abilities are made up of multiple skills, including thinking logically, critically, and empathetically for a purpose.

MEXT's requirement that teachers develop learners' critical thinking skills is not only a part of its overall plan for education but is specifically related to English education. MEXT's English Course of Study guidelines for senior high schools (2009) explicitly state that one of the main objectives of English Expression I is: "to build students' skills in examining facts and opinions from different perspectives and in conveying their thoughts logically and expressively. . . " (MEXT, 2009, p. 10). Furthermore, in the education guidelines under the section titled Overall Curriculum Design and Content Treatment, MEXT says that the topics used in English classes should help learners in "understanding various viewpoints and ways of thinking, and developing impartial
judgment and empathy" (MEXT, 2009, p. 22). These goals are critical thinking goals, yet there is almost no research on the effectiveness of different critical thinking pedagogies, particularly in the field of TESOL. It is necessary that further research be conducted in order to prove that current teaching methods can effectively meet the proposed educational goals.

3. Research Questions

Therefore, this study considers the hypothesis that, if carefully constructed, a project-based task that engages learners' interest and at the same time forces them to consider various contentious topics from several different perspectives can increase learners' critical thinking abilities.

Thus, this study attempts to answer the following research questions:

1) Which English skills can be improved by public-forum activities?
2) Can critical thinking be improved through public-forum activities?

4. Public Forum Speech Project

The public-forum speech project was designed to maximize the number of opportunities learners had to think about the thinking of others, and to consider topics from multiple points of view. There were three main parts to the project: the speech preparation stage, the in-class presentation stage, and the post-speech critical-writing stage.

4.1 Speech Preparation

In the initial stage of the project, learners were divided into small groups, assigned a topic, and then assigned a role or
character based on that topic. Each small group consisted of about five learners and each group was assigned one of eight different topics. The topics were controversial, invoking a variety of opinions. To illustrate, one of the topics introduced was “Japan should restart some of the nuclear reactors.” Some of the issues were current and local like this one, while others were global issues.

In addition to a topic, each group member was assigned a role within that topic. On the issue of restarting nuclear reactors, some of the assigned roles included:

- an employee at a nuclear power plant
- a resident of Fukushima who had to leave his/her home
- the president of a green energy company

The roles were chosen in order to produce a variety of opinions on the same topic. However, it should be noted that learners were encouraged to decide for themselves whether or not their characters would be for or against a topic based on their own research. Learners were encouraged to thoroughly research their topics before forming an opinion. The groups decided amongst themselves who would take each role and then prepared for the speeches for two weeks, or four class periods. Learners were instructed to give their speeches in character, in other words, from the perspectives of their assigned roles, rather than simply from their own perspectives. Creating a background story was encouraged and some of the learners actually based their characters on real people.

All of the elements of preparation were intended to produce cooperative sharing of ideas and develop learners’ critical thinking skills. While each group member had to give his or her own speech, the groups were free to work together to develop their characters, share ideas, and tell a group story. In addition, the roles and different points of view were intended to develop learners’ empathy and fairness. By being forced to put themselves in the shoes of their
characters, it became harder for the learners to simply stereotype their characters. Rather, learners needed to make strong cases for their characters in order to make their persuasive speeches effective.

4.2 In-class Presentations

During each 50-minute class period, one group of learners would present five speeches on one topic, each from a different perspective or role. Before the speeches began there was a warm-up discussion period and after the speeches were over there was a question and answer session.

In small groups before the speeches began, all of the learners who were not speaking were to discuss that day's topic briefly, decide if they agreed or disagreed, and give a reason. The teachers would then ask a few learners to share their opinions with the class. This was the priming stage to get learners thinking about that day's topic, thinking about their own opinions, and thinking about what their other classmates thought before the main task started.

Next, five learners spoke, each for about three to five minutes. All five learners gave their speeches one after another, presenting various different perspectives on the same topic. Meanwhile, all the other learners were tasked with taking notes on the five speeches. In order to complete the critical writing assignment which is discussed in the next section, they needed to have taken adequate notes on what each speaker said.

Finally, there was a question and answer time in which learners in the classroom audience could ask questions or make comments to that day's speakers. Again, the goal was that both the note-taking learners and the speakers would be challenged to think carefully about the arguments for and against each topic.

Throughout this phase all of the learners were challenged to do some level of critical thinking. Those in the audience were
compelled to weigh the various different perspectives and decide which ones they found convincing and why. On the other hand, the speakers had to be prepared to answer a variety of difficult questions after their speeches were over, which challenged them to criticize their own ideas and empathize with their characters more.

4.3 The Critical-writing Assignments

At the end of each class, the learners were assigned a writing task based on that day's topic. They needed to answer the following questions:

1. Whose idea do you agree with the most? Use details and examples to explain why.
2. Whose idea do you disagree with the most? Use details and examples to explain why.
3. What do you think we should do about this topic? Use a specific reason and example.

This assignment was due by the next class period, about one to three days later. It was completed for every topic except the one about which the learner spoke; so nearly every learner wrote this response for seven out of the eight topics. The amount of space provided for writing encouraged the learners to write about 60 – 80 words for each of the questions. They were required to reference and support or refute specific details from the speeches that they chose to agree or disagree with rather than offering vague responses. This was done in order to encourage the learners to take adequate notes and think carefully about the other learners’ logic and thought processes.

This part of the project was the most intensive test of critical thinking and English. Learners had to express their critical analysis of all the different points of view, choosing which ideas were strong and which were weak. Doing this requires logic, empathy, practicality, and decision-making skills. Finally, the third
question challenged learners to decide for themselves what should be done, which was MEXT's ultimate goal for these skills – the ability to solve problems.

5. Methods

5.1 Participants

The 79 learners (58 girls and 21 boys) who participated in this project are third-year high school students who belong to a foreign studies course. Because of this, they are relatively highly motivated to learn English compared with their peers. Many of their English classes are conducted mainly in English, and the learners themselves have been encouraged to use English in English classes; so speaking English, including stating their opinions, is not an unusual thing for them.

5.2 Procedures

To assess the effectiveness of the public-forum speech activity in terms of building learners' critical thinking ability, a questionnaire was used to examine the learners' perceptions of what changed before and after the activity. It was given right after each learner finished his or her speech and they were required to submit it by the end of the project. There were three main sections to the survey, which consisted of nine questions overall. The first section asked learners to state their feelings about their own speeches specifically. The second section asked learners about their topics: including their interest in and opinions about the topics, both before and after the project. The final section asked about the project overall, including a question about which skills the learners felt that they improved the most. Except for three of the nine questions, learners were able to write anything that they wanted about the project and their possible answers were not limited.

The answers to three questions from the survey provide
support for the hypothesis that public-forum activities can increase English and critical thinking skills:

1. Has learner interest in the topics increased?
2. Which skills did the learners think they had improved the most?
3. Did the learners' opinions change after working on their characters/topics?

6. Results and Discussion

While the results of a learner opinion survey may have limited empirical value, there are a few reasonable, important conclusions that can be drawn from the data. Learners appear to have been engaged in the topics and taken a further interest in them; they feel that they have improved a variety of skills, especially English production skills and critical thinking; and the learners have reassessed their stances on some of the topics, confirming that critical thinking is likely happening.

6.1 Interest

As for Question 1, learners were to report their interest in the assigned topic before they started working on the project and after they finished their speech using a five-point scale from one (none) to five (very much). The result shows that almost all learners said their interest in the topic increased to some extent. As can be seen in Figure 1, before working on the project, 13 learners answered they had no interest in the assigned topic, but after the project none of the learners said they had no interest in it. On the other hand, 30 answered “very much” after the project, which was only six before. In addition, 33 answered “quite a bit” and in total about 80% of the learners said they were “very much” or “quite a bit” interested, which implies that the knowledge they gained through the project helped them grow in interest in their respective topics.
Interest may seem like an unrelated topic to critical thinking, but learner engagement plays a crucial role in developing critical thinking. Ten Dam and Volman, in their review of literature on critical thinking, conclude that one of the characteristics of teaching which is assumed to successfully produce critical thinking is “stimulating interaction between students” (2004, p. 370). While this activity certainly facilitated a lot of interaction between the students, the fact that it was stimulating for them and provoked their interest is much more significant.

While this is not yet enough to conclude that critical thinking improved, it is reasonable to believe that the environment needed to cultivate critical thinking was present. As was previously noted (Beckett & Miller, 2006; Paul, 2005), project-based tasks are engaging and authentic, and thus should produce better critical thinkers. This data supports the assumption that a project-based task would engage learner interest.
6.2 Skills

Having more interest certainly cannot be the only data used to conclude that critical thinking improved. In this section, the learners’ perceptions regarding which skills they felt improved the most during this project, if any, are examined.

![bar chart showing skills improved](image)

*Figure 2. Skills learners felt they improved the most.*

6.2.1 English Skills

Figure 2 is the result of the question of “Which skills do you think you have improved the most?” As seen in the graph, learners believe that numerous language skills were required and thus improved through this project. In fact, many learners said that more than one skill improved. Each learner was required to give a speech for at least 3 minutes by taking on the role of an assigned character for a topic. It is therefore understandable that 38 (48.1%), about half of the learners, included speaking skill as one of the most improved skills. However, the largest number of learners chose writing as the most improved skill overall, with 49 learners (62%)
choosing this. This is also predictable because each learner had to write a script for his or her speech and, in addition, they each had seven post-speech writing tasks throughout the course of the project. Quite a few learners (34.1%) also chose listening as one of their most improved skills, which again is not surprising because it was necessary for learners to listen carefully to all of the speeches in order to complete the post-speech writing assignment.

The first research question asked which English skills can be improved through this project. Based on the learner responses, writing and speaking skills are the most likely to be improved through public-forum activities. Some listening is also required to complete the project and the learners’ responses reflect that. While this public-forum speech project is not yet a four-skills activity, the significant amount of learner interaction and efficient use of class time make this an excellent production-skills (speaking and writing) activity. Of course, it could be adapted to include more skills while still improving critical thinking skills.

6.2.2 Critical Thinking

Critical thinking and logical thinking were also chosen in large numbers, which is quite interesting since it was never explicitly mentioned to learners that this project was intended to improve critical or logical thinking skills. Twenty-eight learners (35.4%) chose “critical thinking” as one of their most improved skills with this project. That is already significant considering that this project was part of an English presentation class whose main purpose learners see as improving their English skills. However, taken in combination with the rest of the data, there is even more compelling evidence that critical thinking improved.

As was shown in both MEXT's and Paul’s definitions, critical thinking is made up of multiple skills. Learners need to think logically, critically, and empathetically to improve what MEXT calls
“thinking and analytical skills” or what Paul calls “critical thinking.” The data in Figure 2 shows that while 28 learners (35.4%) said their critical thinking improved, another 34 learners (43%) said that their logical thinking skills improved. Altogether, 48 learners (60.75%) said that at least one of the skills related to critical thinking improved. Because multiple answers were allowed on this survey, we found that 14 of the learners (17.7%) said that both critical thinking and logical thinking were among the most improved skills.

In regard to our second research question, whether critical thinking can be improved by public-forum activities, an overwhelming majority of learners thought that at least some of the skills related to critical thinking improved. Even though the focus of this class was practicing English presentation skills, it is noteworthy that such a large percentage of learners felt their critical thinking skills also improved through this kind of activity. However, more research needs to be done to discover the extent and quality of this improvement.

6.3 Changing Opinions and Critical Thinking

As for the question of “Has your opinion changed after working on the character or topic?”, as seen in Figure 3, 25 learners (31.6%) answered their opinions changed; while 52 learners (65.8%) said they still had the same view; however, while not every learner changed his or her mind completely, many learners commented that they changed their opinions to some extent. Based on the learners’ free writing responses to the survey questions, even those who did not change their minds now have better reasons for what they believe or they have more respect for the beliefs of others, even if those beliefs are opposed to their own. Because so many learners changed their opinions and thought about the issues more deeply, it suggests that critical thinking is happening.
Figure 3. Change in learner opinions after the project.

Part of critical thinking is being critical of one’s own ideas, analyzing new ideas, and being willing to change one’s mind if those new ideas are better. However, Paul points out that people have a natural inclination not to do this:

There are deep-seated tendencies in the human mind to reason in order to maximize getting, and to justify getting, what we often unconsciously want. This typically involves using cognitive and affective processes to maintain self-serving or pleasant illusions, to rule out or unfairly undermine opposing ideas, to link our identity with ideas that are “ours” . . . and otherwise distort or “misinterpret” our experience to serve our own advantage. (Paul, 1984, p. 5)

In other words, people do not typically want to change their minds or have their ideas called into question. They prefer to distort reality and facts to serve their own pleasant illusions. Critical thinking seeks to undermine this tendency by bringing fairness, empathy, and reasonable reflection into the equation. This makes the fact that 31.6% of learners changed their minds significant. These learners called their own beliefs into question, found them insufficient, and decided to change their beliefs. This clearly
indicates that learners applied critical thinking skills, likely involving empathizing with opposing viewpoints.

Not all of the learners had to change their minds in order for critical thinking to be happening since some learners may already have had sufficient reasons to support their way of thinking, or the project may have legitimately reinforced the ideas which they already had. In fact, as mentioned above, that is exactly what happened in the case of many of the learners. Take, for example, the response of one learner to the topic of legalizing euthanasia. Before the project, this learner was opposed to euthanasia, and this is still her opinion afterwards, but the reason has changed:

I still disagree with euthanasia, but the reason is different. According to my research, there are some serious problems in the countries which is allowed euthanasia. For example, suicide is a big problem. I think same problem will happen if euthanasia is allowed in Japan.³

Before the project this learner’s only reason for opposing euthanasia was that she thought it was “cruel.” Now the basis for her opinion is far more logical and she can clearly explain why she believes euthanasia is not right for her country. She also commented that she could understand people who have the opposite view better.

Similarly, many learners who did not change their overall opinions commented that they better understood the views of others with different opinions. Take, for example, the view of one learner on the topic of restarting some of the nuclear reactors in Japan (which are currently all turned off due to the Fukushima disaster). This learner opposes restarting the reactors, but also writes:

When I am researching about it, I found the opposite view to my opinion, so I thought I should not make speech
Many learners made comments similar to this, that they began to think more about or have more compassion for their opponents’ points of view. Considering the opinions of others more seriously also caused some learners to change the strength of their opinions. Again on the topic of restarting nuclear reactors, one learner was initially supportive of restarting the nuclear reactors. After the project, this learner took a more measured stance:

My opinion is not changed. However, I think Japan should decrease the number of nuclear power plants gradually after restart them because nuclear power plant is still bad for our health.

As illustrated in this example, many of the learners who did not change their opinions began to analyze, think critically, and reassess their opinions and the opinions of others.

The learner survey is not sufficiently able to assess the quality of these more subtle changes in learner opinions. However, this is an area for further research in the future. Nakano and Maruno (2013) presented a series of developmental stages for learners’ arguments in English. There are many similarities between the stages of arguments in Nakano’s study and some of the elements of critical thinking which have been presented here. It is certainly possible to adapt Nakano and Maruno’s framework to assess not only this project, but many types of classroom activities to observe if critical thinking skills improved.

This section also relates to the second research question, which was whether public-forum activities can improve critical thinking skills. Based on the design of the project and the effect that it had on learners’ beliefs, there is sufficient evidence to conclude critical thinking was happening. Taken in conjunction with the learner-skills survey and learners’ high level of
engagement, there is no reason to doubt that learners can develop their critical thinking skills through projects analogous to the public-forum speech project. However, more research needs to be done into the extent to which these skills can be developed through public-forum activities.

7. Conclusions

Based on the data just presented, it is reasonable to assume that the public-forum speech project as described in this paper can be an engaging, English production-skills activity that will challenge learners to become better critical thinkers. In order to meet MEXT's goal of preparing learners to meet the challenges of tomorrow, it is necessary to develop not only basic knowledge and skills, but the critical thinking skills necessary to apply that knowledge to challenging, real-world problems. The public-forum speech project provides one method to introduce critical thinking skills in the TESOL classroom.

However, this study does have several limitations which warrant further investigation. It is not clear to what extent the critical thinking of learners' improved. Further research needs to be done on the extent to which critical thinking actually grows through projects similar to this. There may be other methods of teaching which are more effective or more efficient at teaching these skills. Furthermore, it is not clear that this project would be effective with all types of learners. The learners in the project were motivated high school students who all shared the same L1 and had become accustomed to receiving instruction entirely in English. There may be other barriers to critical thinking growth in different environments.

To date, there is very little empirical data comparing the effectiveness of different critical thinking pedagogies, but a few
researchers have developed frameworks that may be useful for further assessing tasks like the public-forum speech project. Nakano and Maruno (2013) provide a framework for measuring the growth of argumentation skills through debate that may be adaptable to measuring some elements of critical thinking for this project in the future. In addition, Paul and the Foundation for Critical Thinking (2014) have several resources for measuring critical thinking skills that can likely be adapted to fit a variety of classroom environments. Regardless, this paper contributes to the body of knowledge on critical thinking, particularly in TESOL environments, and has provided several areas for further research in this seldom studied area of education.

Notes
1 Part of this research was presented at the JACET Hokkaido Annual Chapter Conference on June 28, 2014.
2 Multiple answers were allowed for this question.
3 All learner writing samples appear unedited and may include errors in spelling, grammar, or punctuation.

References


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