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Impact of Debate Instruction and Pair Practice on Japanese High School Students' Speaking Skills and Critical Thinking

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ABSTRACT

The revised course of study guidelines for senior high schools in Japan now features a new subject, “Logic and Expression”, designed to enhance communication skills through the formulation and elaboration of logical structures. This addition underscores a rising societal emphasis, both locally and globally, on fostering the ability to articulate thoughts logically and convincingly, anchored in critical thinking (CT). Existing research reveals a positive correlation between CT and speaking skills, crediting English debate, pair practice, and peer assessment as effective strategies. This study seeks to examine the impact of utilizing the “format” in debate instruction and implementing pair practice to augment high school students’ speaking skills and CT. Interviews were analyzed through the lens of the Modified Grounded Theory Approach to derive our core hypothesis: the instruction of debate “format” exhibits a synergistic relationship with pair practice. This research endeavors to illuminate the mechanisms through which debate “format” instruction and pair practice influence the growth of CT and speaking skills from the learners’ perspective. It underscores the value of collaborative learning in a secondary educational environment, projecting potential applications across diverse speaking instruction practices.

KEYWORDS: critical thinking, speaking skills, debate, pair practice, Modified Grounded Theory Approach (M-GTA)

Introduction

Since the arrival of the knowledge-based society on a global scale due to economic development in the latter half of the 20th century (OECD, 1996), the development of human resources with high-level cognitive skills to fulfill the ever-changing needs of society, as observed during the COVID-19 pandemic, has become increasingly challenging. These skills, often called “21st century skills”, have various definitions according to the ATC 21s (Binkley et al., 2012), Partnership for 21st Century Skills (Partnership for 21st Century Skills, 2007), and others, but at the core of these skills is the ability of critical thinking (hereinafter abbreviated as CT*1). Recently, developments in the field of critical thinking skills have led to an increased world-wide interest in the output of EFL learners (Renatovna and Renatovna, 2021). Against the backdrop of global demands for the cultivation of these qualities and abilities required of 21st century learners, the new Courses of Study guidelines in Japan also propose “knowledge and skills”, “the ability to think, judge, and express”, and “the willingness to learn” as the three pillars of these qualities and abilities (Ministry of Education, Culture, Sports, Science and Technology, 2018). In English education, a new subject called “Logic and Expression” has been introduced to promote the ability to communicate through speaking and writing by devising and developing logical structure. With the growing interest in critical thinking skills at the global level, major changes are being attempted in secondary English education in Japan.

In the Courses of Study guidelines, the new subject “Logic and Expression” in foreign language (English) education is explained as follows:

Speaking and communicating by utilizing the structure and development of logic means (1) to speak and communicate logically, having learned how to structure and develop logic by using models, formats, etc., and paying attention to whether there are any contradictions or leaps in logic and whether the reasons and rationales are more appropriate, etc. Speeches and presentations may require some advance preparation, but even in such cases, it is important to be aware of the importance of (2) effectively conveying one's thoughts and ideas to the audience and avoiding simply reading from a pre-written draft. It is also important to (3) conduct exchange activities after the speeches and presentations, such as question-and-answer sessions with listeners and exchanges of opinions. (Ministry of Education, Culture, Sports, Science and Technology, 2018, p. 90)

In the quote from the ministry, part (1) describes the relationship between CT and speaking, and studies have shown a correlation between the two (Afshar & Rahimi, 2014; Arfae, 2020; Malmir & Shoorcheh, 2012; Ramezani, Larsari, & Kiasi, 2016; Sanavi & Tarighat, 2014). The literature has also reported that improving CT improves speaking skills (Akatsuka, 2019; Setiawan & Bharati, 2018).

Part (2) explains the possible improvement of speaking skills through collaborative learning, including pair activities. Various surveys have found that group work activities are significantly more effective than practicing alone in improving students' speaking skills (Achmad & Yusuf, 2014; Fortunela, 2017; Rospinah, Ampa, & Nappu, 2021; Supraba, 2018; Watanabe & Swain, 2007).

Part (3) is a typical example of activities being used in peer assessment. Peer assessment is a mutual evaluation process in which learners provide feedback to each other; the feedback can be used as a reference for improvement and is a teaching method that supports collaborative learning among learners (Orsmond, Merry, & Reiling, 1996). Studies from the foreign language education field have investigated peer assessment for oral performance as part of communicative activities (Fukazawa, 2010; Hasnani & Mubarak, 2019; Peng, 2009; Saito, 2008).

As stated previously, the implementation of activities designed to strengthen CT can result in substantial gains when attempting to improve the speaking proficiency required for the course “Logic and Expression,” particularly when these activities are structured as pair work. In a more in-depth analysis of the effects of collaborative learning, the research of Hammar Chiriac (2014) provides an insightful analysis of the effect of collaborative work on learning of Swedish university students and qualitatively deciphers the students’ perceptions of their learning in this context. Similarly, Chang and Brickman (2018) suggested that the incorporation of collaborative work in college-level courses could result in a significant increase in student achievement, reasoning skills, and motivation. However, they asserted that the success of such an approach is contingent on the provision of suitable support strategies and cautioned that students with inferior academic performance may not perceive the cognitive benefits.

These preceding analyses have brought up crucial aspects regarding the advantages of collaborative learning environments for enhancing CT in higher education. Our study seeks to determine whether the above-mentioned principles can also be applied to high school education in Japan. While it is acknowledged that there is a demonstrable efficacy and correlation between CT development, speaking skills enhancement, and pair practice, our review of the literature reveals a paucity of studies examining this interaction from the students’ perspective. In particular, little research has elucidated the mechanism by which collaborative learning experiences, such as pair practice and the development of CT and speaking skills, influence each other. The exact nature of this transformative process remains unknown, necessitating further investigation.

Aim of the Study

This study aims to clarify the process of transformation mentioned in the prior section by analyzing how learners’ awareness changes and how their speaking skills are affected when they practice in pairs using activities to develop their CT. Regarding the content of the practice, because debate activities affect CT and speaking skills (Fauzan, 2016; Sako, 2022), we adopt the method of teaching the “format” of argumentation, widely used in debate instruction.

Research Questions

To analyze the effects of “format” instruction and pair practice on speaking skills and CT from multiple perspectives, we pose the following research questions:

Table 1. Research Questions and Corresponding Data Sources/Methods

Research Questions	Data Sources/Methods
RQ (1) How does the teaching of “format” used in debating arguments influence students' speaking skills and CT?	Analysis of student speeches pre/post instruction
RQ (2) How does pair practice influence students' speaking skills and CT?	Analysis of student speeches pre/post pair practice, feedback from mutual evaluation sheets
RQ (3) What is the interaction between “format” instruction and pair practice in terms of influencing both students' speaking skills and CT?	Analysis of student speeches pre/post instruction and pair practice, M-GTA interview analysis

Method

Participants

Starting in February 2022, we organized a speaking practice seminar as an after-school extracurricular activity for first- and second-year high school students who wished to participate. Four first-year students (two boys and two girls) and five second-year students (one boy and four girls, two of whom participated from the second session on) participated. We explained in writing and orally to the students that participation was voluntary, that they had the right to withdraw from the study at any time, that their decision to participate would not affect their regular classes or grades, and that the results of the survey would be strictly anonymized to protect their personal information. The participants, whose English proficiency was between A1 and A2 level of the CEFR, had little or no experience in debating in regular classes and were not accustomed to speaking English daily.

Practice Sessions

In 10 practice sessions, the “format” was taught in the first half of the sessions (the first through the fourth sessions), and pair practice was introduced in the latter half (from the fifth session onward).

In English debate, “it is very important to learn logical and persuasive arguments and to acquire the format and its relevant expressions” (Kawano, 2021, p. 35). Typical “formats” for developing logical arguments are AREA (an acronym for Assertion/Reason/Example [Evidence]/Assertion) and NLC (Numbering/Labeling/Contents). This method of teaching the “format” used in the debate instruction has been established to a certain extent as a method of coaching teams competing in a debating tournament (Hamano, 2020), and we posited that by adopting this method

in this study, basic debating skills would be effectively acquired. In the fourth review, we re-emphasized the importance of making the E (example) in the AREA structure specific and concrete and expanding the contents.

In the pair practices, the students were encouraged to present a speech on a certain topic in English for approximately 1 minute after 5 minutes of preparation. The concrete procedure for pair practice sessions was as follows:

- (1) After the students listen to their partner's speech, they fill out the "mutual evaluation sheet," and handed it over to their partner.
- (2) After practising two sets in different pairs, the students were required to reflect on their speeches, fill out the "Reflection Sheet," and submit it to the teacher.

Table 2 shows the duration and contents of each practice session.

Table 2. Record of Speaking Practice Sessions

Session	Date	Content
Preliminary	February 17–25	Pre-speaking test ^{*2}
1 st session	February 22	Lecture and exercise on how to identify ideas
2 nd session	February 25	Lecture on speech "format"
3 rd session	March 2	Exercises on speech "format"
4 th session	March 4	Review of key points on speech "format"
5 th session	March 11	Speaking practice in pairs (1)
6 th session	March 15	Speaking practice in pairs (2)
7 th session	March 16	Speaking practice in pairs (3)
8 th session	March 23	Speaking practice in pairs (4)
9 th session	March 28	Speaking practice in pairs (5)
10 th session	March 29	Speaking practice in pairs (6)
Post	April 5–22	Post-speaking test and interview ^{*3}

Data Analysis

Analysis of interviews using Modified Grounded Theory Approach (M-GTA)

The interviews were transcribed and analyzed using the M-GTA. This method of theory generation interprets the process of the transformation of relationships among multiple concepts through a continuous comparative analysis method (Kinoshita, 2020). The M-GTA is "a qualitative research method suitable for the analysis of interview data" (p. 62) and is characterized by the following: the researcher, as the "analyzing person," is incorporated into the research method, in addition to setting the theme of the analysis and its focal persons. This study did not aim to construct a theory that applies to all types of learning but rather to generate evidence-based (grounded) hypotheses limited to the domains of speaking and CT. The analysis proceeded as follows: we

- (1) generated concepts from the characteristic parts of the interview data, drew up an “analysis sheet” for each concept, and set the definition of the concept in addition to specific examples;
- (2) formed categories that can comprehensively explain the relationships between the concepts generated; and
- (3) summarized the relationships among categories in a result diagram and described storylines based on it.

Data of pre/post-speaking tests

The audio-recorded data from each of the pre- and post-speaking tests were transcribed to obtain the total number of words (excluding errors such as rephrasing, Token) and the number of different words (Type), the number of clauses contained in each AS-unit (number of clauses per AS-unit, NCPAS), the number of clauses in each AS-unit (NCPAS), and the number of tokens per AS-unit (NTPAS). They were statistically processed using SPSS ver. 24 to check for changes between the pretest and posttest. This study used the following definition of AS-unit: “a single speaker’s utterance consisting of an independent clause, or sub-clausal unit, together with any subordinate clause(s) associated with either.” (Foster, Tonkyn, & Wigglesworth, 2000, p.365).

Results

Interview Analysis Using M-GTA

In the M-GTA approach, a “theme of analysis,” is defined as “a question you seek to clarify through data analysis” (Kinoshita, 2020, p.62). In this study, we used two themes of analysis: (1) the process of the influence of the acquisition of “format” on the affective aspects of CTs, and (2) the process of the influence of the presence of others on the affective aspects of CTs. The reason for setting these themes is that the lectures and exercises aimed at the acquisition of “format” and pair practice activities were two different treatments and were initially thought to influence the transformation of students’ CT through separate mechanisms. Based on the interview data, concepts were generated by creating an “analysis sheet,” as proposed by Kinoshita (Tables 3 and 4 are an example). Along with the generation of concepts, the relationships between concepts concerning (1) and (2) were organized as categories, and we found that the two seemingly separate mechanisms converged into several interrelated subcategories. For (1), 3 categories, 2 subcategories, and 13 concepts were generated. For (2), 3 categories, 2 subcategories, and 15 concepts were generated. One concept was common to (1) and (2).

Table 3. Analysis Sheet (Example 1)

Theme of Analysis	Process of the influence of the presence of others on the affective aspect of students' CT
Focal Person	Student (learner)
Concept Name	Desire to make themselves understood
Definition	Presence of the student's partner increased the student's willingness to convey his/her opinion to the other student and the desire to make themselves understood.
Specific Examples (Excerpt) Translated by the Author	<i>(When I had to communicate with the other person,) I used a lot of gestures and did other things I thought of as appropriate. I think it was great to be able to look the other person in the eye when I made my speech. I was able to deliver my speech while looking the other person in the eye, so I thought I had to deliver my speech properly, too. I could do my best because the other person was watching me. I was very happy that I was able to deliver my speech in a way that was convincing to the other participants. I also learned to think about how I could make a speech that would convince the other person, and to use familiar examples from our daily lives to make my speech easier (for the other person to understand.)</i>
Theoretical Note	Use of non-verbal means such as gestures also increased.

Table 4. Analysis Sheet (Example 2)

Theme of Analysis	Process of the influence of the presence of others on the affective aspect of students' CT
Focal Person	Student (learner)
Concept Name	More awareness of the plurality of viewpoints
Definition	The students have become capable of conceiving things from positions and perspectives other than their own.
Specific Examples (Excerpt) Translated by the Author	<i>Previously, I was only thinking from my own perspective when considering opinions, and I hardly ever had any ideas. I used to struggle with this a lot, but now I am thinking about things from various perspectives and sharing my speeches with everyone. Until now, I could only think about my opinions and myself superficially (it wasn't possible otherwise). I only thought about characters (etc.) from my own perspective. I used to only think from one perspective regarding the topic, but when I thought from various perspectives, I was able to enrich my content a lot. It can be applied not just to a single topic but to a wide range of areas. I was thinking too much... or rather, I was only directing my thoughts in one direction and wasn't looking at things from various perspectives. I couldn't see them. From now on, I won't become fixed or produce only one opinion.</i>
Theoretical Note	Perhaps the lesson on idea generation has been beneficial.

The analysis sheet was created by the primary author based on the interview data. The other author then painstakingly examined each item on this sheet. The process of generating categories for organizing the interrelationships between concepts was a collaborative one that was shaped by rigorous debate. The collaborative methodology ensured the validity of the analysis by providing multiple perspectives to evaluate the robustness of the conceptual relationships derived from the data.

As part of our dedication to analytical transparency, we recognized the possibility of discrepancies during the Modified Grounded Theory Approach (M-GTA) procedure. In some instances, the authors' interpretations of the interview data and the subsequent categorization procedure diverged. In such instances, resolution was reached through in-depth discussion and comparison of opposing perspectives until consensus was reached. This procedure, which included revisiting the raw data, discussing the rationale for each interpretation, and arriving at a mutually accepted interpretation, served to enrich our analysis and ensure the integrity of the findings.

Figure 1 shows the results diagram, and two storylines stemming from the analysis are proposed after Figure 1.

Impact of Debate Instruction and Pair Practice on Japanese High School Students' Speaking Skills and Critical Thinking

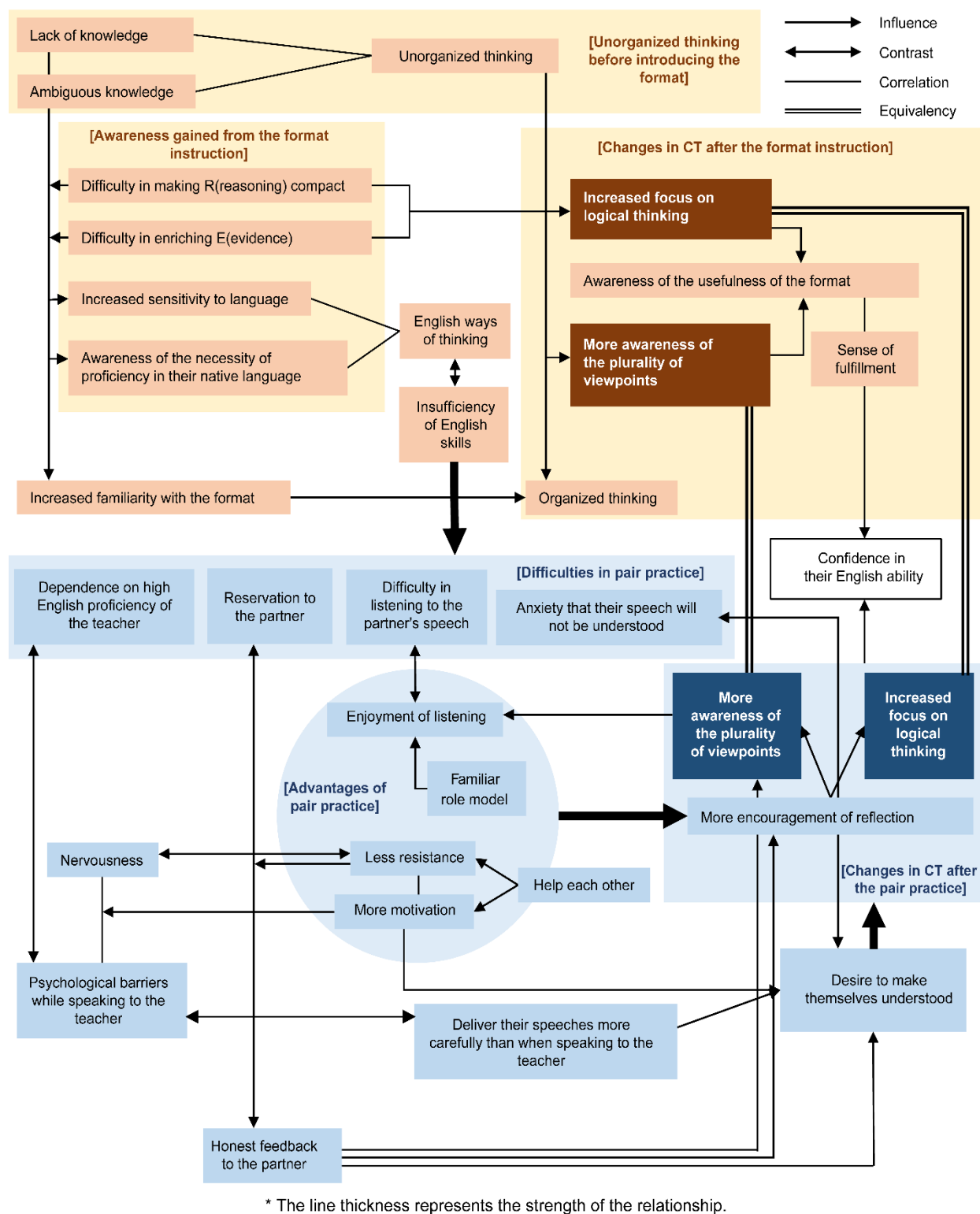


Figure 1. Result Diagram

Two Storylines

Generated categories are denoted by [], subcategories by { }, concepts by “ ”, and concrete examples are in italics. The parentheses in the concrete examples are the interpreter's interpretation supplemented to clarify the context.

Storyline (1)

Students who are in a state of [unorganized thinking before the introduction of the format] due to the “lack of knowledge” or “ambiguous knowledge” of the format are bewildered by the “English ways of thinking” that differ from those of their native language and increase their “sensitivity to language” and the sense of their “insufficiency of English skills”. However, through [awareness gained from format instruction], they become “more focused on logical thinking”, “more awareness of the plurality of viewpoints”, and reach the state of “organized thinking” because of their “increased familiarity with the format”. [The change in CT after format instruction] in terms of an {increased focus on logical thinking} and {more awareness of the plurality of viewpoints} leads to an “awareness of the usefulness of the format”, as well as a “sense of fulfillment” in communicating in English, and deepens their “confidence in their English ability”.

Storyline (2)

In the pair practice activities, the students perceive [difficulties in pair practice] such as “anxiety that their speech will not be understood” due to their “insufficient English ability”, “difficulty in listening to the others' speech”, and “reservation to the other”. However, because they do not have to feel the “psychological barriers” or “nervousness” that they normally feel when speaking to the teacher, the students “help each other” in pairs, feel “less resistance” and “more motivation”, and provide “honest feedback to their partner”. The presence of a “familiar role model” and the “enjoyment of listening” to their partner's speech, all included in [the advantages of pair practice], leading to “more encouragement of reflection”. [The change in CT after the pair practice] is that students “deliver their speeches more carefully than when they speak to the teacher” and increase their “desire to make themselves understood”, leading to {increased awareness of the plurality of viewpoints} and {increased focus on logical thinking}. Through “frank feedback to the partner” by way of the review sheet and the mutual evaluation sheet, [the change in CT after the pair practice] deepens “confidence in their English ability”.

*Pre- and Post-Speaking Test Data**Quantitative Analysis*

We conducted Wilcoxon's signed rank sum test on the total number of words Token obtained from the pre- and post-speaking tests. The results showed that $z = 2.666$, $p = .008$, and $r = .89$ (large effect size), thereby presenting a significance of the practices. The same results were obtained for the number of different words Type, $z = 2.666$, $p = .008$, $r = .89$ (large effect size). No significant change was observed for the number of clauses in each AS-unit, NCPAS ($p = .621$), and the total

number of words in each AS-unit, NTPAS, increased significantly, $z = 2.492$, $p = .013$, $r = .83$ (large effect size). Table 5 shows the descriptive statistics for each variable.

Table 5. Descriptive Statistics for Each Variable (N = 9)

	Min	Max	Mean	SD	Variance	Skewness	kurtosis
Token (Pre)	23	78	51.11	18.917	357.861	-0.050	-1.301
Token (Post)	77	224	117.22	44.251	1958.194	2.068	4.804
Type (Pre)	19	46	32.22	10.329	106.694	-0.021	-1.970
Type (Post)	54	105	67.78	17.796	316.694	1.634	1.547
NCPAS (Pre)	1.1	2.0	1.500	0.2739	0.075	0.563	0.171
NCPAS (Post)	1.3	2.0	1.533	0.2449	0.060	1.013	-0.097
NTPAS (Pre)	6.6	9.8	7.778	1.0710	1.147	0.904	-0.140
NTPAS (Post)	8.6	11.6	9.733	1.0874	1.183	1.030	-0.228

Note: All standard errors for skewness are 0.717; all standard errors for kurtosis are 1.400.

Qualitative Analysis

The overall number of words uttered increased mainly because the students provided specific examples and detailed explanations of their importance. The following is an example of the pretest and posttest:

Pretest (2nd grade female student A)

I think it should ban combat sports.

Combat sports maybe injure someone.

And people who injure opponent disappointed.

And pain is a barrier in school life.

And people who injure opponent disappointed.

Posttest (2nd grade female student A)

I think school should not ban combat sports.

This is because combat sports have many rules.

There are many rules of combat sports to avoid injure.

For example, there is a rule in boxing that you don't make a pose like crashing opponent eyes.

Actually, no high school student in the world who did in boxing.

Why is this so important?

I think people who want ban combat sports in school want to bring to be made terrible pain in combat sports, but the fact is no, not terrible pain in combat sports because of rules. I think people who want ban combat sports in school want to bring to be made terrible pain in combat sports, but the fact is no, not terrible pain in combat sports.

Therefore, I think schools need not ban combat sports.

Discussion

The “format” instruction and pair practice have demonstrable effects on both speaking skills and critical thinking (CT), as highlighted in the literature review. This is further supported by our M-GTA interview analysis, which reveals that the respective mechanisms of “format” instruction and pair practice are not independent phenomena, but rather interdependent in their shared contribution to fostering “increased focus on logical thinking” and “increased awareness of the plurality of viewpoints.”

This study is significant in that it provides a preliminary investigation into the mechanism underlying the correlation between pair practice, peer assessment, and the improvement of speaking skills, the interaction between CT and speaking skills, and the effects of debate on the improvement of CT and speaking skills. This novel perspective provides fresh insights into the dynamic nature of instructional methods and their effects.

The pertinent literature in the field supports these findings. For instance, a study conducted by Hasnani and Mubarak (2020) examined the impact of peer assessment on speaking skills and concluded that using peer assessment helped ESP students improve their oral skills. In a similar vein, Homayouni (2022) asserted that scaffolded peer assessment in a group-oriented context is beneficial for developing not only speaking skills but also vocabulary knowledge.

Collectively, these contributions highlight the necessity of understanding the potential of these instructional strategies and their practical implications. For a deeper comprehension of these strategies and their full impact on students' speaking and critical thinking skills, additional research might be required.

The following is a detailed description of the mechanism in response to the research questions:

A (1) Effects of “format” instruction

Through the “format” instruction, the students developed an “increased focus on logical thinking” and “increased awareness of the plurality of viewpoints,” both of which are important for CT development. The “format” instruction was also effective in enhancing the quality of the speech content, such as “increased sensitivity to language.”

A (2) Effects of pair practice

Pair practice resulted in “more focus on logical thinking” and “more awareness of the plurality of viewpoints” than practicing alone. The effectiveness of peer feedback through the mutual evaluation sheets in improving the quality of reflection and output activities was confirmed, as Makino (2019) showed. Murata (2004) analyzed the important roles of learners' conscious reflection and feedback from other learners in the improvement of their presentation skills in training.

Also reported was that a sense of peer support and subsequently generated emotional well-being are associated with growing motivation (Wentzel & Watkins, 2002). The presence of a partner might have increased the motivation to practice because of the feeling that “someone is learning alongside me” and “I have someone to tell something to” them (Sako, 2021), that is, the loose sense of community, which is essential for learning.

A (3) Interaction between “format” instruction and pair practice

In addition to pair practice having motivating effects on the students, the careful instruction of the “format” using metaphors may have led to an awareness of the usefulness of the format by the students. This usefulness led them to save their cognitive resources, causing “increased focus on logical thinking” and “increased awareness of the plurality of viewpoints,” which were enhanced by pair practice. The analysis of the pre/post speeches indicated that the enrichment of the content and increase in the number of the words in Token and Type were caused by adding concrete examples from the viewpoints of multiple characters and by adding detailed explanations of the importance of the speech. As is shown by Kuhn (2019), the presence of a pair was found to be important for the development of CT in terms of “increased focus on logical thinking” and “increased awareness of the plurality of viewpoints.”

The discussion leads to the hypothesis that “format” instruction and pair practice have a synergistic effect in generating “increased focus on logical thinking” and “increased awareness of the plurality of viewpoints,” important factors in CT development.

Limitations and Further Research

The present study demonstrated a significant improvement in students' critical thinking and speaking skills after the implementation of the “format” instruction and pair practice techniques. These findings, while promising, reflect anticipated outcomes considering the focused nature of the teaching methods employed.

However, we acknowledge several limitations in our study design. Foremost is the absence of a control group where alternate instruction methods were used. Including such a control group could have served as a comparative measure, enhancing the validity of our conclusions regarding the effectiveness of the “format” instruction and pair practice methods.

Furthermore, our study is limited by the need for further validation of the generality of each concept and category derived from the interview analysis. The adaptability of the conceptual diagram created based on these concepts and categories might also require further exploration and validation.

These limitations necessitate cautious interpretation of our results. While the study findings do indicate a favorable outcome from the “format” instruction and pair practice methods, it cannot be definitively concluded that these techniques are the singular catalysts for the observed improvements.

Looking ahead, we encourage future research in this field to include a control group utilizing different instructional methods. This would offer a comparative perspective that could further affirm the effectiveness of the “format” instruction and pair practice methods, as well as broaden our comprehension of the most efficacious instructional strategies for promoting critical thinking and speaking skills.

Despite the noted limitations, the findings of our study hold considerable value for educators in the field of ELT and pave the way for more comprehensive research in this area.

Conclusion

Based on the preceding discussion, our study postulates a hypothesis that describes the interdependence between “format” instruction and pair practice. Rather than viewing these as distinct instructional methods, our findings suggest that judiciously integrating these two methods may have a synergistic effect.

The findings of this study have significant implications for the larger field of instructional methodology. If the teaching approach that views speaking and critical thinking (CT) as competencies that can be most effectively acquired through collaboration proves effective, it will emphasize the importance of learning English through collaborative activities such as pair work in classroom settings. This observation underscores the classroom's broader function as a collaborative and dynamic learning environment conducive to skill development.

To establish the veracity of our hypothesis, however, we must acknowledge the need for additional research. Future studies that integrate longitudinal and large-scale instruction will be crucial for validating our hypotheses and shedding more light on the intricate relationship between “format” instruction, pair practice, and the development of speaking and critical thinking skills.

Notes

- 1) Though various definitions of CT have been proposed (Michita, 2003), three points have been highlighted as common constituents of CT (Kusumi, Koyasu, & Michita, 2011).
 - (1) Logical and rational thinking, namely, thinking according to criteria.
 - (2) Goal-oriented thinking is executed in accordance with goals and contexts to improve the manner of thinking.
 - (3) Reflective and deliberative thinking, in which an individual consciously examines his/her reasoning process

For the purpose of this study, we defined CT as “ways of thinking in which an individual does not adhere to his/her opinion and can evaluate things from multiple perspectives.”

- 2) The topic of the preliminary speaking test was “School should ban combat sports. Agree or disagree.” During this test session, the participants were free to take notes and look at their notes while speaking.

3) The topic of the post-speaking test was the same as that used in the pretest. In the semi-structured interviews, the following questions were prepared as an interview guide.

- How did you feel about learning the “format” of speech?
- How useful was the method of identifying ideas when thinking about your speech?
- How did you feel about practicing in pairs?
- What did you gain from participating in this practice seminar?

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