

Critical Thinking in EFL Classrooms: Effects on Learner Motivation, Autonomy, and Belief

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Abstract

Whether or not to teach critical thinking skills in language classrooms has long been discussed among language educators. Some educators may think critical thinking (CT) imposes Western cultural practice on English learners and overlooks learners' respective cultural backgrounds. However, from a postcolonial and poststructuralist view that deconstructs taken-for-granted ideas between the East and West, many argue critical pedagogy can benefit Japanese learners of English. This paper further examines a previous study by the author which inspected how learners think about critical thinking after a series of routine activities carefully designed to cultivate critical thinking in content-based language classrooms (Lin, 2021). Student feedback indicates that when exploring different topics in English, critical thinking motivates them and encourages learner autonomy and curiosity. Further, critical thinking skills also promote active listening and reading, improved comprehension, better conversation skills, and English production.

Keywords: Second Language Acquisition, Learner Motivation, Critical Thinking, Learner Autonomy, Multiculturalism

In the conversation about ESL or EFL education, it is merely impossible to avoid discussing what to include when teaching a language. Can educators teach the thought process of the L2 community? Should the L2 culture and ways of thinking be taught in language classrooms? Discussions have taken place around and within the author throughout her language learning and teaching experiences. How far can language educators teach beyond language forms, and how far do language learners learn beyond language forms?

Traditionally, the field of second language acquisition (SLA) has centered on the process of language acquisition and language learner factors (Larsen-Freeman, 1991). However, SLA studies have taken “the social turn” (Baynham, 2006, p. 25), and the emphases have turned from linguistic and psychological factors to social and cultural factors, which have greatly affected the second language (L2) learners acquiring their L2. SLA is, then, not merely considered learning a set of linguistic rules but as discovering a way to think, know, socialize, participate, live, and express. As Hall concludes, when someone learns a second language, they also acquire a second social setting (2002).

However, teaching language learners ways of thinking in the L2 has drawn some discussions over the years (Elder & Paul, 1994; Atkinson, 1997; Davidson, 1998; Kubota, 1999; Brown, 2004). Whether or not to teach critical thinking (CT) in language classrooms has raged among educators. This paper will review some discussions on the position of critical thinking in language classrooms in Japan. Serving as a follow-up paper on incorporating critical thinking in language classrooms (Lin, 2021), the author will inspect how the students consider critical thinking after routine activities that cultivate critical thinking in English classes in Japan.

Critical Thinking in Language Learning

Atkinson (1997) published an article calling for educators’ attention on teaching critical thinking. He argued that language educators needed to be cautious

about teaching critical thinking skills, presuming culturally specific values to Western cultures as individualistic and self-expressive. Critical thinking was then a social practice, and by teaching critical thinking skills, educators might have imposed values that do not align with learners' cultural values. He supposed that Asian cultures emphasized contextualization and relations with what were around, which impeded analytical skills in Western standards. Of course, by saying this, Atkinson did not indicate Asians did not have thinking skills; rather, Asians had unique ways of thinking. It might not align with the Western norms, and language educators needed to recognize them. Forcing Asian learners to decontextualize and be objective might draw potential concerns. Therefore, Atkinson called educators to be cautious while incorporating critical thinking into curriculums in a foreign context.

Though Atkinson had a clear perspective in reasoning where language educators should position critical thinking in language teaching by looking at it from a cultural perspective, it drew more debates from postcolonial and poststructuralist views. Kubota (1999) examined the cultural labels established in history where Westerners were *analytical, rational, decontextualizing, individualistic, and self-expressive* and Asians were *group-oriented, vague, indirect, ambiguous, polite, and absent of critical thinking*. She suggested that these labels were merely products of this East-West dichotomy. Under that discussion, some educators might believe that it gave the Westerners more legitimacy to be critical thinkers, not the Easterners, or that educators should not teach critical thinking to align with learners' cultural backgrounds. However, Kubota reviewed studies to show that the Western educational institutes were not necessarily teaching critical thinking (1999).

Furthermore, a project conducted by Stevenson and Stigler (1992) observed elementary school mathematics teachers in Japan, China, Taiwan, and the US. They found out that teachers in Japan encouraged students to reflect, ask questions, find alternative approaches to solve problems, and explain in their

languages more than teachers in the US. However, the American teachers experienced the curriculum pressure that they needed to cover many more mathematics problems in a single lesson. In contrast, in Japan and Taiwan, teachers focused more intensively on only a few problems to grant students time to think. Stevenson and Stigler (1992) found the following:

[In the United States,] the emphasis is on doing rather than thinking... In the United States, the purpose of a question is to get an answer. In Japan, teachers pose questions to stimulate thought. A Japanese teacher considers a question to be a poor one if it elicits an immediate answer, for this indicates that students were not challenged to think. (pp. 194–195)

Also, in their observations, the Japanese teacher took errors as teaching moments and even expected errors to provide discussion and explanation opportunities. In contrast, the American teacher tended to ignore errors and waited for the students' correct answers.

From the postcolonial aspect, Kubota continued to argue how essential it was for the Japanese to be critical in their thinking to find their voice (1999). Considering Japanese context and history, she explored how Japanese people have struggled with their identity and voice in the world ever since Meiji Restoration. She argued that the voice, “a site of struggle” (p. 21), would not occur without carefully and critically examining history, economy, and power relations. Critical thinking was thus not distant and irrelevant from Asian cultures or students. On the contrary, Asian people needed critical thinking skills to find their voice in the postcolonial world.

Critical Multiculturalism and Pedagogy

In terms of pedagogical orientations, two positions remained strong in language teaching and multiculturalism. On the one hand, the acculturation model believed that mainstreaming language learners was the primary purpose of language education; the learners' best performance was to be acculturated to

the L2 world (Kubota, 1999). Their native cultural background was absent in the learning. On the other extreme, the pluralist model encouraged educators to recognize and respect learners' individualism and background cultures. However, this model "[did] not critically explore issues of the construction of certain cultural representations, nor [did] it examine how power comes into play in the distinction between dominant and subordinate forms of rhetorical conventions" (Kubota, 1999, p. 27).

This liberal view of multiculturalism, or so-called color-blind or difference-blind multiculturalism (Kubota, 2004; Leong, 2017), neglected the cultural differences, the historical and political roots, and inequality in power and resources. This liberal view of multiculturalists emphasized equality among all races and the sameness in humanity (Kubota, 2004). However, saying "we are all the same" closed any potential discussions on inequality in power and resources. Racism seemed to be entirely denied because it was merely not articulated. Leong (2017), from a Chinese American perspective, described this as an "I don't see any color" kind of colorblindness (p. 46) and further proposed a different type: "progressive colorblindness" (p. 45). This group of people claimed that they loved cultural diversity (e.g., they see the colors), but it was implied that diversity was valued as long as the "appearance of multiculturalism doesn't disturb the status quo of the dominant culture;" Leong called this "the multicultural potluck version of diversity" (p. 45).

However, critical multiculturalism provided a different perspective for language learners. Critical multiculturalism not only stressed the recognition and respect for cultural differences but also demanded a critical examination of socially and culturally dictated heritage granted to learners. It encouraged learners to critically examine challenging issues on gender, race, inequality, politics of languages in multiculturalism conversations (Kanpol, 1997, as cited in Kubota, 1999; Kubota, 2004). In terms of curriculum design, Kubota stated:

Critical multicultural education demands that curricula, materials, and daily

instruction involve all students in critical inquiry into how taken-for-granted knowledge, such as history, geography, and lives of other people, is produced, legitimated, and contested in power struggles. (2004, p. 40)

Critical multiculturalism claimed, “all knowledge, not only ‘official knowledge,’ be taught critically” (Nieto, 1999, p. 207, as cited in Kubota, 2004, p. 37). Learning the knowledge allowed learners to develop perspectives on where they are in the relationship with the L2 reflectively.

Definition of Critical Thinking

In explaining critical thinking as a social practice, one evidence Atkinson provided was the issue of the unclear definition (1997). He described scholars took critical thinking as a *concept on faith*: educators and parents talked about it and taught it without knowing what it referred to. Atkinson referred to Johnson’s conclusion (1992, as cited in Atkinson, 1997) that critical thinking was an interchangeable term for *metacognition, higher order thinking skills, problem-solving, rationality, and reasoning*. Responding to Atkinson, Davidson (1998) also confirmed the definition issue and the cultural issue, stating that despite various versions of different definitions in history, there was a prominent area of overlapping with little discrepancy, even considered as “paraphrases of the same idea” (p. 120). However, Davidson did not think that critical thinking could be absent in education because of the overlap among fields.

When reflecting and criticizing education trend, Elder and Paul (1994) defined critical thinking as “the ability of thinkers to take charge of their own thinking,” and it required that they “develop[ed] sound criteria and standards for analyzing and assessing their own thinking and routinely use[d] those criteria and standards to improve its quality” (p. 34). Doing so freed the teacher from professing instructions and information, and the responsibility to simply cover the content; instead, it gave students more responsibility to monitor and reflect on their learning and thinking (Elder & Paul, 1994). This idea also resonated with

the research done by Stevenson and Stigler (1992) mentioned earlier.

It would probably be more evident at this point to look at critical thinking from a historical view. Lai (2011) has compiled an excellent overview on defining how critical thinking was perceived throughout history. The philosophical approach of critical thinking described critical thinking as a particular *quality or standard of thinking* rather than what critical thinkers believed, applied, and behaved (Bailin, 2002, as cited in Lai, 2011). Later, the cognitive psychologists tended to research how people *think* rather than how they *should think*. Therefore, instead of having criteria and standards to judge “good” thinking, cognitive psychologists focused more on specific behaviors or skills, for example, posing good questions, analyzing, or interpreting. Finally, educators joined the discussion.

Blooms formulated a taxonomy for information processing, which was widely applied by educators in teaching or assessing higher thinking skills. The hierarchical diagram placed memory and understanding at the bottom, analysis and application in the middle, and evaluation and creativity at the top of the pyramid (see Figure 1).

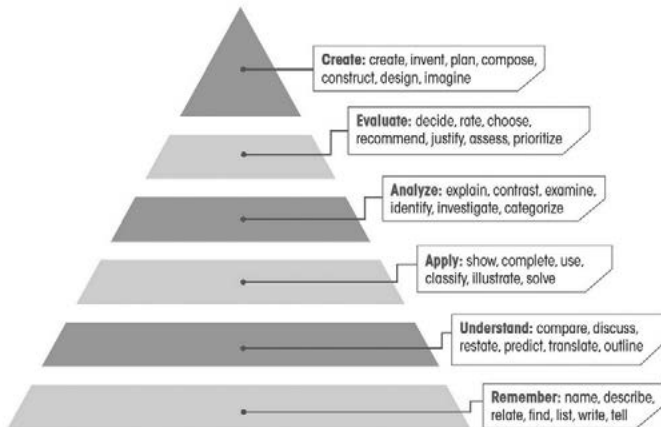


Figure 1. Bloom’s taxonomy on critical thinking (cited from *Prism Reading 2*, by Baker & Westbrook, 2018. Copyright 2018 by Cambridge University Press)

In the author's curriculum designs, critical thinking was considered more of a cognitive behavior to observe than content (e.g., logic) to teach. Therefore, the author believed that educators should provide learners opportunities (also a safe place) to practice these skills rather than judge the thought process. Critical thinking skills in EFL classrooms should be viewed as skill training (as well as other skills educators teach in language classrooms) and educators as coaches in the language classrooms.

The Need of Teaching Critical Thinking in Japan

As discussed earlier, Western education did not necessarily demonstrate more critical thinking skills than Asian educational institutions (see Stevenson and Stigler, 1992). According to the TALIS Report (the Teaching and Learning International Survey, NIER, 2019b), the committee surveyed educators among 48 countries on assigning problems that required critical thinking skills. Western countries ranked comparatively higher, yet it did not indicate that Asian countries ranked low and demonstrate the absence of critical thinking. Nevertheless, on assigning problems that required critical thinking skills in junior high schools, the average score was 61% among 48 OECD countries, Singapore responded 54.1%, Taiwan 48.8%, Korea 44.8%. Unfortunately, Japan scored 12.6% (11.6% among elementary school teachers, NIER, 2019b). Additionally, TALIS also surveyed educators if they assigned problems that did not yet have solutions, and with an average of 37.5% from the 48 countries, Japan reported 16.1% (NIER, 2019b). The author was unsure if the Japanese education system dropped critical thinking after 1992 (as described in Stevenson & Sigler's study earlier that Japanese teachers encouraged critical thinking more than American teachers), or if critical thinking was primarily applied to mathematic classes as Japan still ranked first place in mathematics in PISA Report 2018 (NIER, 2019a).

In criticizing the phenomenon of panic-buying and hoarding of gargling medicine in Osaka, Kubota (2020), a news commentator, indicated the problem

behind it seemed to be the Japanese people's comfortable belief and the lack of critical thinking skills in the Japanese education system. Kubota criticized the highly-valued notion in the society that *sunaona iiko* (Japanese for "obedient and good kids") grew up to be *sunaona otona* (obedient adults). Most people in the Japanese society tended to be weak-willed to authorities, assuming everything the authorities said was true, and there was no need to question or examine.

Going back to the discussion about English education in Japan, the Japanese Ministry of Education (MEXT, 2011 & 2013, as cited in Mineshima, 2014) implemented new Courses of Study for high school English education and emphasized the importance and necessity to foster students' ability to evaluate information, form opinions from various perspectives, and communicate through reasoning. However, as Mineshima and Chino (2013, as cited in Mineshima, 2015) examined textbooks from Japan, Korea, and Finland, they found out that Japan has placed "much greater emphasis on information access and retrieval skills than other countries, and suggestions were made to provide Japanese learners with more opportunities to respond as individual thinkers" (p. 460). Besides, in the 2015 study, Mineshima also concluded that the high school English textbooks in Japan had inadequate critical thinking questions; he further criticized the unbalanced distributed critical thinking questions were very likely to be skipped towards the end of the school year.

Nevertheless, MEXT (2018) continued the emphasis on helping learners to read and listen to information, evaluate, and reason in their communications. English education should aim to foster independent learners in their ability to think, express, judge, and respond to unknown situations. High school educators should provide an environment for their students to learn independently (or proactively), interactively, and deeply to solve problems in English. Therefore, it would be assumed that, with the continuum of critical thinking throughout high school, university teachers should continue fostering students' ability to think critically in their L2.

Elder and Paul (1994) also reflected the current trend in education of being lacking critical thinking skills. The world needed people who could continually think and resist the world's current trends: the trend of relativism, convenience, and didactic teaching. The trends could no longer help us and our students to voice and cope. Elder and Paul argued,

In society, dogmatism, relativism, and uncritical thinking are dominant at all levels. In schools, didactic teaching ensures that students will continue to graduate as undisciplined thinkers — and hence as poor readers, writers, speakers, and listeners — and that students will not learn to reason scientifically, mathematically, historically, or morally (or in any other important way, for that matter). (p. 34)

The author took this statement as an encouragement to include critical thinking to train better English speakers, readers, writers, and listeners in education across the borders.

Question Asking

Questions stimulated thinking, involved answers, and elicited information. Research about teachers' questions and students' questions has shown that questioning benefits educational achievements (Gall, 1970; Aitken & Neer, 1993; Watson, 2018). Good teacher questions initiated and guided students in classrooms, yet Gall (1970) found out that “about 60% of teachers' questions require[d] students to recall facts; about 20% require[d] students to think; the remaining 20% [were] procedural” (p. 713). Even among the questions that assisted students in thinking, students might tend to answer with rote recalling techniques without careful attention. Thus, Gall proposed that teachers' follow-up questions were necessary to help students learn and think.

In regard to teaching active comprehension in reading, Singer (1978) indicated that teacher-posed questions were, of course, necessary in teaching reading comprehension, but they aimed at memory in most cases (e.g., “What was the

article about?”). Similarly, the author regarded textbook questions as serving the same purpose. Even if the questions were carefully designed to help students think, as Gall described above, students might tend to recall information from the passage. Therefore, moving away from memory recall and turning to thinking about the topics required teachers’ sequential follow-up questions.

Another way to view posing questions in language education was to see the benefits of students guiding themselves in thinking through the questioning process. After examining benefits of skillful teacher questions, Watson (2018), in a literature review, agreed that educating students to ask good-quality questions frequently further led to better information retention, improved cognitive development, classroom engagement, and problem solving (para. 16). It was clearly shown that student-generated questions guided them to think and promote critical thinking skills and motivation.

Further, when students learned to ask questions, it moved from teacher-centered instruction to student-centered instruction and promoted class participation and student curiosity in English. Encouraging students to pose their own questions while reading directed their own thought process and curiosity. Singer proposed that the process “stress[ed] reading for the purpose of satisfying the reader’s curiosity” (p. 907). While reading, students could take the initiatives to come up with questions actively and be the center of their learning.

Questions-asking activities can be encouraged in listening as well. Drawing from Ferrett (1997, cited in Clark, 2019), careful and active listening and simultaneously thinking of good responses or questions to ask was essential for critical thinkers. Eventually, critical thinkers communicated well and use questions effectively to elicit information in communication, which also corresponded to Elder and Paul’s arguments (1994) that critical thinking trained better speakers and listeners, as discussed above.

On a larger scale, promoting students’ questions also helped multiculturalism — providing a space where learners could resolve ideas that were constructed

historically and politically, especially those that could impede their communication with the L2 community. Kubota (2004) explained, “Critical multicultural education demands that curricula, materials, and daily instruction involve all students in critical inquiry into how take-for-granted knowledge, such as history, geography, and lives of other people, in produced, legitimated, and contested in power struggles” (p. 40).

Therefore, inspiring students to always ask questions while using their L2 (or even L1) was desired and probably the first step in critical thinking. In examining myths in Japan, Kawamoto (2014) stated bluntly that “myths [took] hold when people abandon[ed] critical thinking” (para. 12) and suggested that we needed to adopt a healthy attitude of skepticism and question everything to avoid disillusion. Even though Kawamoto said this towards examining economic issues, the author agreed that with the consideration of teaching English in the CLIL approach (Content and Language Integrated Learning), it was essential to adopt a similar attitude to help students in learning English.

In classroom practice, Aitken and Neer (1993) discovered that students were reluctant to ask questions on motivational problems more than apprehension. Learners’ motivation to succeed on a task probably surpassed their fear of asking questions. Even if they were anxious, their motivation to learn and succeed helped them move forward and ask questions in class. Aitken and Neer then suggested that, to reduce learners’ apprehension, making question-asking a task rather than a social interaction might help learners feel more comfortable in classroom communication and hope to extend to a more in-depth conversation on various topics. This kind of task could also help low-motivation students to initiate “non-personal, non-threatening questions” (p. 79). For example, in the author’s classes (details in Lin, 2021), students read, annotated, asked questions, and then shared them in pairs. They did not need to move to a discussion unless they felt comfortable doing so.

Previous Study

In the previous paper (Lin, 2021), the author introduced some activity ideas that incorporate critical thinking in language classrooms. Due to the COVID-19 outbreak, the activities were conducted repeatedly online in integrated-skill English courses the author taught in 2020. See Table 1 for brief descriptions of the activities (more details in Lin, 2021). A short questionnaire was conducted in July 2020, after the spring semester, to second and third-year students ($n=46$), concluding positively on how learner motivation had improved throughout the semester. From the survey results, the responses showed challenges in asking questions after reading and listening, yet it helped respondents to think deeply, critically, and objectively from various perspectives. They also noticed the importance of examining the information they received rather than taking everything for granted. Further, researching their self-proposed questions was enjoyable and exposed respondents to a variety of vocabulary words that were exclusive to them, which again fostered their motivation.

It was also implied that, for many respondents, it was their first-time having explicit instructions to think critically, and they could use the skills to reflect on themselves and improve their actions and quality of life. However, when some respondents reflected on themselves or social issues from the critical approach, they possibly could be tearing down what was taken for granted for their whole lives. This act might have aroused their insecurity or even past pain in life. Therefore, it was then suggested that the instructor and the class community were responsible for providing a safe place for learners to confidently and comfortably disagree with others. Sometimes after class follow-up support might be necessary.

Table 1*Routine activity ideas to incorporate critical thinking*

	Student behaviors
Reading- and writing-related	<ul style="list-style-type: none">• Identify newly learned information.• Ask questions about the reading passage.• Choose one question from above and research.• Answer one reflection question (involving students to analyze, evaluate, and apply class materials)• Share their questions in pairs.
Listening- and speaking-related	<ul style="list-style-type: none">• Discuss teacher-posed questions (involving students to analyze, apply, evaluate, and create information).• Listen actively to all student presentations and ask questions connecting to the content.• (For presenters) Answer questions• Debate casually in pairs on teacher-proposed topics.• Roleplay in groups in debating or negotiating on a provided issue (only for the second-year course).

Present Study

Based on the previous study, the author continued exploring how critical thinking helped language learning and, this time, focused explicitly on how asking questions helped active learning and presenter motivation. The author continued using the above activities for the Fall semester to examine students' beliefs about critical thinking and how it affected their own learning. The research questions were (the first two questions were repeated from the previous study):

1. Did critical thinking help language learners in language learning? In what way?
2. Did critical thinking help language learners to be more confident and motivated in communication?
3. Did asking questions promote learner curiosity, and did it help language learners to listen more carefully and actively during presentations?

4. Did learner-generated discussions after presentations help both presenters and audience communicate confidently?
5. What did learners believe in themselves when they think critically?

Activities and Course Breakdown. All courses were CLIL oriented English courses for non-English major university students (see Table 2 for a brief breakdown for the courses, including the frequency of their question-asking habits). All remained online due to the COVID-19 outbreak. Due to different textbook selections, the introduction of critical thinking was done verbally with Bloom’s taxonomy (shown in Figure 1) with the emphasis on especially remembering, understanding, applying, analyzing, evaluating, and creating. All discussion questions were designed carefully to engage students with the skills. *Prism Reading 2* included the taxonomy on pp. 12–13, and students could always refer back to their textbooks. *Reading for Today 3* also included critical thinking sections in all chapters to “help students interact with the real world as many exercises require students to go outside the classroom to collect specific information” (p. xv). *Core English* did not explicitly reinforce critical thinking, and the author added a number of follow-up questions into class discussion. Therefore, students

Table 2
Course information for Fall 2020.

Course	Class time	Content and Activities	Textbooks
1st-year course	90 minutes, twice a week, 15 weeks	4 units, 8 readings, 4 presentations	<i>Core English</i>
2nd-year course	90 minutes, twice a week, 15 weeks	4 units, 8 readings, 2 presentations*, 3 group roleplay debates	<i>Prism Reading 2</i>
3rd-year course	90 minutes, once a week, 15 weeks	4 chapters, 4 readings, 2 presentations	<i>Reading for Today 3: Issues</i>

Note. *The 2nd-year course had four presentation days, yet students only needed to present twice, meaning students had more opportunities to ask questions than take questions.

were provided with plenty of opportunities to engage in critical thinking skills.

Participants. All participants were university students in Japan, non-English majors. Due to enrollment and department requirements, participants in the Fall semester were slightly different from the previous semester, causing some new participants to join in the Fall semester. See Table 3 for participants' details on the length of instructions from the author. Routine instructions stayed the same online in the Spring and the Fall semesters of 2020, yet lessons in 2019 were slightly simpler for trial in physical classrooms. This applied to a few participants who took the author's courses for 2 semesters (one in 2019, one in 2020) or 4 semesters (two in 2019, two in 2020). It was also clear that participation in the questionnaire was entirely voluntary and would not affect participants' grades nor relationship with the author.

Table 3

Participant details on the length of instruction by January 2021

Courses	1 semester	2 semesters	3 semesters	4 semesters	Total
<i>1st-year course</i>	—	28	—	—	28
<i>2nd-year course</i>	1	11	—	15	27
<i>3rd-year course</i>	15	13	—	—	28
Grand Total					83

Data Collection.

Questionnaire. The present study focused more on asking questions after reading and presentations and how it affected student motivation and language learning. Since some participants did not answer the previous survey, 22 questions given in January 2021 consisted of 10 repeated questions from the previous study and 12 new questions (Appendix A). The previous questions focused more on asking questions and researching after reading, while the newly-added questions provided more information about asking questions after presentations and learner motivation and autonomy. The first 17 questions were statements

based on a 4-point Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*), followed by five open-ended questions to explore participants' beliefs about themselves, critical thinking, and general feedback on activities. All questions were given in English and Japanese. Both English and Japanese responses were accepted, and Japanese responses were translated to English by the author. Participants could also choose to skip questions if they'd like.

Class observation and presentation reflections. The author observed learners in all courses and took notes on interesting student behaviors throughout the Fall semester of 2020. Respondents' answers on their presentation reflections were also brought into the discussion to understand participants' perceptions and behaviors throughout the process.

Results and Discussions

Table 4 shows the statistical results from the Liker-scale items.

Posing questions during reading and presentations. It was still somewhat difficult for students to ask questions during reading ($M=2.711$, $SD=0.863$). The results did not indicate much if asking questions after presentations was difficult or not ($M=2.530$, $SD=0.888$). Yet, more respondents responded that it was hard to ask questions closely connected to the presentation content ($M=2.398$, $SD=0.840$). Nevertheless, regardless of reading or listening, participants felt more curious while posing questions; furthermore, getting to know more about the topic had brought positive effects on language learning (see items 2, 3, 4, 5, 11).

While observing student behaviors, one class caught the author's attention. With the emphasis on the importance of posing questions, this class performed very well on asking questions during reading. However, this group was reluctant to ask questions after presentations. Instead of asking questions, the students preferred commenting on the topic or the presenters' skills. Further, one student in this class has said multiple times, "I have no questions because your presentation

Table 4
Survey results

	Count				M	SD	PR*
	1	2	3	4			
<i>Reading- and writing-related</i>							
1. Difficult asking questions.	9	19	42	13	2.711	0.863	33%
2. Asking questions helps curiosity.	1	2	29	51	3.566	0.609	96%
3. Asking questions deepens understanding.	0	2	24	57	3.663	0.524	98%
4. Researching self-posed questions is interesting.	0	5	36	42	3.446	0.610	94%
5. Researching self-posed questions is hard.	4	28	26	25	2.867	0.908	61%
<i>Speaking- and listening-related</i>							
6. Easy to ask questions after presentations.	10	31	30	12	2.530	0.888	51%
7. Questions always based on content.	10	39	25	9	2.398	0.840	41%
8. Thinking about questions while listening.	1	9	20	53	3.506	0.739	88%
9. Better focus when listening to presentations.	2	6	27	48	3.458	0.738	90%
10. Listening more actively.	2	1	24	56	3.614	0.641	96%
11. Having questions indicating curiosity about presentation content.	1	8	31	43	3.398	0.715	89%
12. Feeling good when receiving questions because of peer curiosity.	2	6	20	55	3.542	0.738	90%
<i>Motivation and learner autonomy through CT</i>							
13. Using more variety of English words.	2	13	42	26	3.108	0.749	82%
14. More responsible for own learning.	1	13	47	22	3.084	0.684	83%
15. More motivated.	4	22	38	19	2.867	0.823	69%
16. More confident.	2	16	46	19	2.988	0.724	78%
17. More prepared to discuss.	1	15	44	23	3.072	0.712	81%

Note. *PR = positive response, representing the percentage of respondents who answered 3 and 4 on each item (except for item 1 with answers on 1 and 2, meaning asking questions was not difficult).

was good.” From responses specifically from this class (n=13), all scores were comparatively lower on speaking and listening related survey items, especially on if it was easy to ask questions ($M=2.154$, $SD=0.899$) and if the questions were based on presentation content ($M=1.923$, $SD=0.760$).

The author supposes that even if the learners felt curious, the reluctance

of asking questions may involve cultural or social norms in Japan. Students may have assumed that the teachers are the knowers in traditional language classrooms, and they ask questions for students to answer (discussed in Korst, 1997). Granting the questioning power to the students can be confusing and intimidating, thus requiring long-term training.

Also, when it comes to students asking their peers questions, it may involve face-saving or face-threatening acts in the Japanese culture. Learners do not want to bring embarrassment to their peers. Some responses from the presentation reflection surveys the author collected showed that participants felt guilty asking difficult questions to the presenters, which may cause their colleagues to lose face. Nevertheless, they also felt a sense of achievement when they knew they had asked good questions. Therefore, Aitken and Neer (1993) suggested that educators needed to be aware of the cultural differences in practicing both teacher questions and student questions. In other cases, respondents also responded that they were unsure if the presenters already covered their questions, so the anxiety level was raised.

There seemed to be quite some fears before they ask questions. To empower students when they ask questions, especially after presentations (because it requires prompt responses), the author believes that teaching them necessary language frames in L2 helps lower their anxiety and feel more comfortable posing questions rather than offending or threatening their colleagues. Some examples are:

- “You probably have mentioned this in your presentations already, but...”
- “I am not sure if this is part of your research, and...”
- “Your presentation is fascinating, and that makes me wonder...”

Learning the academic L2 frames to answer questions will lower learner anxiety in asking questions as well. When the presenters do not know the answer to the questions, there are also useful L2 frames to express that appropriately. It is also an excellent opportunity to demonstrate that presenters are not necessarily

the knower, which releases some stress. Some examples are:

- “That is an interesting question. I did not research it, and now I am curious too.”
- “Thank you for your question. I researched it, but I couldn’t include it in my presentation due to the time limit. According to ...”

Effects on content-based language learning. On the effect of whether learning to think critically and ask questions constantly contributed to language learning, the responses showed positive results on actively listening, better comprehension, improved discussion skills, and vocabulary learning.

Actively listening was one of the specific areas the author was curious about, and a few items were included in the questionnaire. The scores for items 8, 9, and 10 were significantly high, indicating that most participants listened to presentations with a higher concentration ($M=3.458$, $SD=0.738$), more actively ($M=3.614$, $SD=0.641$), and constructing questions constantly while listening ($M=3.506$, $SD=0.739$). On answering the areas participants learned the most (item 18), some commented on learning to listen more critically, seriously, and carefully. On the other hand, the author was concerned if the post-presentation discussion would benefit presenters or not. The score on this (item 12) was significantly high ($M=3.542$, $SD=0.738$), showing that, after explicit training, when presenters received questions from the audience, they felt excited and pleased because they had engaged their audience’s curiosity.

Better comprehension and vocabulary learning were also two areas that are connected to language learning. Responses from item 18 showed respondent’s awareness of the improved understanding overall and better guess unknown words from context that brings to comprehension. In terms of vocabulary learning, item 13 on vocabulary also showed a significantly high score ($M=3.108$, $SD=0.749$), implying more exposure to distinct vocabulary when practicing CT.

Overall, on what participants improved the most on an open-ended question (item 21), the top three responses were their speaking skills, critical thinking

skills, enhanced content knowledge on the world and social issues (84% total); other answered presentation skills (especially on how to organize and select information and persuade the audience), listening skill, writing skills, vocabulary, and study style. Interestingly, the speaking skills were the most impacted through the critical thinking activities, and learners can directly and promptly experience their improvement. Responses on the most enjoyable activity (item 22, open-ended question) also corresponded to this: conversations and discussions, presentations, debates (87% total); some answered stations (another activity where participants chose which task to do) and asking questions. Using stations biweekly was one way for the author to recognize different preferences learners had and give them more control in their learning, and usually there were 4 stations out of 6 that required speaking (conversation, discussion, debate, and critical incident). From the results, we could see that when practicing CT, learners probably recognized more immediate rewards in speaking activities because of the interactive nature of the speaking activities. When they asked questions or expressed opinions, they could receive immediate feedback and a sense of achievement. Even with presentations, the questions asked after each presentation provided a sense of accomplishment straightaway.

Besides, because of the nature of CT, there are no predetermined right or wrong answers that are taken for granted; it allows learners to construct ideas through negotiation as well as allowing disagreement to occur more frequently than the harmonious Japanese community. One respondent from item 21 (on what improved significantly) further expressed how uncomfortable it could be to debate with their seniors in Japanese, but critical thinking activities offered opportunities to express their disagreement in confidence in English. This cultural view also provides positive respect in teaching critical thinking to allow learner empowerment to speak in their L2 more than in L1.

– *“I gained the ability to debate with senior students in English. In Japanese, we speak to our seniors with honorifics, but English doesn’t have them, so I felt a*

little self-conscious at first. But, in the end, I was able to speak in English on equal terms with my seniors. Because seniors made it easy for me to talk to them.” (S75)

Critical thinking on learner development. Another area of interest was how critical thinking developed learners’ responsibility and confidence in their learning. Item 14 on learner autonomy ($M=3.084$, $SD=0.684$) indicated a somewhat positive response. Item 15 on motivation ($M=2.867$, $SD=0.823$), item 16 on confidence ($M=2.988$, $SD=0.724$), and item 17 on preparedness in presentation ($M=3.072$, $SD=0.712$) also illustrated somehow significance on positive effects from critical thinking. On looking at the positive response rate on these items, it was surprising that item 15 on motivation was the lowest ($PR=69\%$). Critical thinking helped learners build confidence, autonomy, preparedness significantly, yet not as much on motivation comparatively.

Learning to be critical, drawn from item 18, helped participants to become more objective, creative and filled with new ideas, curious, respectful with different opinions. All of the above contribute to building a more trustful and welcoming atmosphere in the language learning community. They also became able to see things from diverse perspectives and in-depth, habitually applying CT to their daily lives.

– *“I got a habit (kuse) of observing things from various angles.” (S47, translation)*

– *“I learned about that we have to use critical thinking skills every time when we touch the news.” (S81)*

On another note, many comments showed participants’ improved ability to reason, form opinions, discuss, and make better decisions. Some commented that they learned to be more careful with the information they received and cautiously verify. Others commented on their lack of knowledge and the need to research more, indicating their hard work and care in evaluating and developing their ideas.

- *“I learned to research once I have doubts about my own opinions. Depending on various ideas, I need to change my opinion. I gain more confidence in my ideas.” (S42, translation)*
- *“I can now take a closer look at things and make better decision if that is the right or not.” (S64, translation)*
- *“I think it’s very good to think deeply and take time for one thing without ending with half-hearted thinking. ...and presentation will be more persuasive.” (S80)*

Effects on student belief about themselves and CT. Respondents commented on how they thought about themselves had changed when they practiced critical thinking, and many comments demonstrated a positive image about themselves. They experienced personal development and broaden horizon; they also felt confident, intelligent and a sense of achievement in learning, knowledgeable on various topics, mature, creative, interested and motivated to learn more, glad and happy. However, some participants expressed their self-image on critical thinking performance did not always stay the same yet changed depending on topics. On another note, some did not sense any difference about themselves, and some experienced pressure, difficulty, and self-ignorance.

Respondents also believed that critical thinking skills would be useful in their future (97% among those who answered item 20). Some elaborated comments explained how participants pictured how critical thinking skills would help them in the future at work and many situations: to know how to have deep conversations, ask questions appropriately at the right moment, predict the flow in the conversation, explain ideas more logically, open up new opportunities, evaluate Japanese social issues, eliminate bias, and deal with different opinions around. One interesting comment expressed that the skills made it possible to do things in L2 that the respondent could have already done in L1. In a different study, Floyd (2011) gave critical thinking test items to Chinese students. Half participants took the first half in English and the second half in Chinese, and the

rest of the participants reversely. The results showed that language proficiency was a significant influence on critical thinking performance. The results also responded to what was discussed in the literature review that students in Asia could perform CT tasks regardless of being *Eastern*. Learners simply needed more opportunities in L2 to perform CT tasks. A few more responses from the present survey resonated:

- *“I feel that the ability to ask questions is a necessary skill.” (S35, translation)*
- *“This skill was totally what I wanted.” (S39)*
- *“I would like to improve that skill. I’m still not confident at thinking critically, so I thought it would be great if I could improve it in classes like this.” (S64)*

When commenting on item 21, those who commented on content also expressed their ignorance and indifference on world issues. Critical thinking stimulated and impacted them to care more about different issues in L2 and contribute more as global members. One response stood out:

- *“I lived in Japan for [many] years...but I felt that I didn’t know anything about my country yet. Also, since we talked about only Japan but also the world, I learned that there are still too many things I didn’t know. I learned both about Japan and the world, and I was able to learn what kind of country Japan is, and I thought there was a lot I needed to know more.” (S72, translation)*

This probably responded to what Kubota (2004) described that critical pedagogy could offer “new possibilities beyond their abilities in their native language and culture, [and]... provide novel expressions and interpretations” (p. 48). In this case, the respondent experienced this first in English and hopefully would influence experiences in L1 in the future.

According to the author’s observation in Japan, more books written by Japanese scholars (rather than translated books) have been published on the topics of critical thinking and question asking (one example is the famous book *Shitsumonryoku* [The ability to ask questions] by the best-selling author, Takashi Saito). Consequently, it has drawn significant attention among people in Japan

within the decade. This very likely affected how the participants viewed critical thinking and question asking. It is more important for foreign language educators to provide opportunities for learners to practice CT skills in their L2.

Conclusion

Despite the fact that different educators have different approaches to critical thinking, Japanese learners demonstrate significantly positive feedback on learning or practicing the skills in their L2. Because of the nature of critical thinking, learners can feel empowered and confident when they express their thoughts freely and openly without adhering to cultural discourse. Learners also consider these skills necessary for the future, especially at work and in communication. Besides, critical thinking stimulates language learners to see the world and their own community with a critical approach, providing them opportunities to step away and investigate the taken-for-granted ideas inherited socially and culturally. However, while critical thinking opens up new avenues for conversation, educators must be mindful of the negative feelings that learners can encounter due to the process — they may feel ignorant and perplexed. Reinforcing the value of a safe and trustful community in discussion and negotiation helps maintain a supportive atmosphere for the learners.

The author will continue designing activities that cultivate learners' critical thinking skills, connecting more with global and local issues that help them become members of the world community. Future studies will focus on learner identity and L2 self when they practice the skills.

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Appendix A

Survey questions

Item 1	I think asking questions is difficult.	R*
Item 2	I think asking questions helps me to be curious.	R
Item 3	I think asking questions helps me to think and explore deeper in different topics.	R
Item 4	I think researching the questions I make is interesting.	R
Item 5	I think researching the questions I make is hard.	R
Item 6	When I listen to presentations, I can come up with questions easily.	R
Item 7	It is easy to ask questions based on the presentation content.	
Item 8	I was always thinking about what to ask while I was listening to the presentations.	
Item 9	Because I need to ask questions, it makes me focus when I listen to my classmates' presentations.	
Item 10	I listen to presentations more actively.	
Item 11	When I ask questions, it means I am really curious about the presentation content.	
Item 12	When my classmates ask me questions after I present, I feel good because they are curious about my presentations.	
Item 13	After learning how to think critically, I was challenged to use more variety of English words.	R
Item 14	Because I need to ask questions and think critically, I feel more responsible for my own learning.	
Item 15	I feel more motivated when I think critically.	
Item 16	I became more confident when I talked about these topics in English after learning how to think critically.	R
Item 17	I became more prepared when I talked in English after learning how to think critically.	
Item 18	What did you learn the most from critical thinking skills?	R
Item 19	How do you feel about yourself when you can think deeper about certain topics?	R
Item 20	Do you think these skills will help you in the future?	
Item 21	What did you learn the most in this course? You can talk about the skills, the content, or anything else.	
Item 22	We have tried many activities in class. Which activity helped you develop English skills and why?	

Note. *R as repeated questions from the previous study.