

# Critical Thinking in Academic Writing: Challenges for Japanese Students Preparing for English-Medium Universities

John E. McCarthy

## Abstract

With the current focus on globalism in Japanese higher education, preparing students for English-medium universities is an important goal of language educators in Japan. In particular, students must be prepared for academic writing assignments which require the demonstration of specific critical thinking skills. Such assignments, however, present challenges to international students, and Japanese students in particular, for a variety of reasons related to cultural and linguistic differences, second language proficiency, and previous educational experience. This paper discusses the critical thinking skills that are emphasized in English-language academic writing and factors that can affect the demonstration of those skills. In addition, the paper suggests ways teachers can help students develop critical thinking skills and apply them to academic writing.

*Key words: critical thinking, academic writing, Japan, English-medium universities, English as a Second Language*

There is currently a noticeable focus on globalism in Japanese higher education. This has been demonstrated by Ministry of Education, Culture, Sports, and Technology (MEXT) initiatives promoting study abroad and increased international student enrollment at Japanese universities. MEXT has also advocated the development of joint and double degree programs between domestic and foreign universities (MEXT, n.d.; Office for Student Exchange, 2010; Rose & McKinley, 2017; Central Council for Education Working Group on the Internationalization of Universities, 2014). Regardless of the country in which programs related to these initiatives take place, the programs may be taught in English. Consequently, preparing students for coursework at English-medium universities (EMUs) has become a more important goal for English-language instructors in Japan. The question is how to prepare students best. What particular challenges will students face, and how should they be prepared for those challenges?

In trying to ascertain which aspects of study at an EMU Japanese students find most demanding, the researcher surveyed 31 students from the same Japanese university who had spent one semester at an EMU, either in Japan or abroad. Nine students responded (see Appendix). Overall, the students reported relatively little difficulty understanding their professors' lectures and participating in class discussions. Understanding assigned readings was reported to be somewhat more difficult, but still less difficult than "completing written assignments according to professors' expectations," which prompted the researcher to examine

what makes EMU writing assignments particularly challenging for Japanese students.

In research in the field, one factor that comes up repeatedly is the emphasis on critical thinking in Western academic writing. (For the purpose of this paper, the term “Western” is used in reference to countries that share cultural ties with Western Europe, in particular, countries whose predominant language is English. The term “Asian” is used in particular in reference to East Asian countries, including China, Korea, and Japan, which also share certain cultural roots. Although these terms lack accuracy and do not indicate the diversity of cultures in “the West” and in “Asia,” they are used for the sake of brevity.) This paper will discuss some of the reasons for this emphasis on critical thinking and some of the misconceptions that can arise from confusing critical thinking as demonstrated in Western academic writing with critical thinking in general. The paper will also address various factors that affect the demonstration of critical thinking in academic writing, such as the language proficiency of the writer, the writer’s previous writing experience, and the assigned topic. Finally, the paper will provide suggestions for helping students succeed in some of the more challenging aspects of academic writing in English.

### **Characteristics of Academic Writing**

According to Kirszner and Mandell’s *The Holt Handbook, Sixth Edition*,

Writing presents many situations in which you must **think critically**: make judgments, weigh alternatives, analyze, compare, question, evaluate, and engage in other decision-making activities. Virtually all writing demands that you make informed choices about your subject matter and about the way you present your ideas. (2002, p. 4)

Similarities can be seen in Bean’s explanation: “For the most part, formal academic writing requires analytical or argumentative thinking and is characterized by a controlling thesis statement and a logical, hierarchical structure” (2001, pp. 17-18).

As these quotations show, independent of English proficiency, English-language academic writing focuses on specific areas of critical thinking: questioning, argument, and analysis—areas which are also a focus of Classical Greek philosophy.

### **Socrates and Critical Thinking in the West**

The roots of critical thinking in the West can be traced to Socrates (Paul et al., 1997; Tweed & Lehman, 2002; Wang, 2017). In describing the method used in Socratic dialogue, Tweed and Lehman write,

In these dialogues, Socrates tended to question his own and others’ beliefs, evaluated others’ knowledge, esteemed self-generated knowledge, began teaching by implanting doubt, and sought knowledge for which he had good reasons.... Socrates, however, did not express

simple, unthinking skepticism. Rather, he carefully evaluated knowledge. He evaluated others' knowledge by asking successively deeper and more probing questions.... (pp. 90–91).

Here, one sees a connection with the type of analysis expected in English-language academic writing, as described by Kirsznner and Mandell (2002), and Bean (2001).

Closer to the present day, philosopher and educator John Dewey helped shape the Western concept of critical thinking. Dewey writes,

The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution. This, more than any other thing, transforms mere inference into tested inference, suggested conclusions into proof. (1910, p. 74)

A similar focus on inquiry and judgment is apparent in more recent definitions of critical thinking, including Ennis's: "*Critical thinking is reasonable and reflective thinking that is focused upon deciding what to believe or do*" (Norris & Ennis, 1989, p. 1). Paul et al. define critical thinking as "thinking that explicitly aims at well-founded judgment and hence utilizes appropriate evaluative standards in the attempt to determine the true worth, merit, or value of something" (1997, p. 2).

From the Socratic method to modern definitions of critical thinking, there is a common theme of questioning and judgment, which is reflected in the concept of English-language academic writing. This aspect of academic writing has been pointed out as a particular challenge for international students (Bennett, 2018; Shaheen, 2016; Tanaka, 2014). Although there are other factors to consider, in some cases this challenge may be due to different cultures' emphasis on different areas of critical thinking. Regarding the challenges of Asian students in particular, it can be instructive to consider historical differences between Asia and the West. At the same time, it is important to avoid overgeneralizations, a point which will also be addressed in this paper.

### **The Influence of Confucianism**

In contrast to the impact of Socrates in the West, Confucius has had a similarly important influence in many Asian countries, including Japan. This influence includes an emphasis on memorization and testing, and on maintaining harmony in human relationships. Confucianism also emphasizes the authority of teachers and the students' role as receivers of their teachers' knowledge (Hmeljak Sangawa, 2017; Marginson, 2011; Pratt et al., 1999; Schenck, 2015; Tweed & Lehman, 2002; Wazir & Wang, 2019).

Tweed and Lehman (2002) explain,

For Confucius, unlike Socrates, learning is not focused mainly on questioning, evaluating, and generating knowledge because truth is not found primarily in the self. Instead, truth

and the associated good character traits are learned mainly from the collective, in particular, learned from individuals whom the collective recognizes as exemplars and from the ancients whom the collective recognizes as even greater exemplars. (p. 92)

Some of the differences described by Tweed and Lehman (2002) are reflected in the responses of Chinese students, Chinese faculty members, and Western faculty members at the same universities who were surveyed by Pratt et al. (1999) about the meaning of “effective teaching.” The respondents’ views were generally consistent within each cultural group. According to the Chinese respondents,

As the first step, students are expected to copy, drill, and memorize the basics, or ‘foundational’ knowledge of their discipline in forms that closely resemble its presentation by the teacher and/or the text.... Memorization is followed by attempts to understand what is memorized, then apply it to problems or situations. Only then are students allowed to question the information and go on to higher levels of analysis and critical thinking, for example in Chinese Classics. (p. 7)

According to the Western respondents, however, “Teachers were to encourage and facilitate the development of independent learning, asking of questions, open discussion of ideas, and challenges to authority” (Pratt et al., 1999, p. 7). These responses should not be taken as a general representation of education in Asia or education in the West, but they do show a connection between culture and educational experience, which can be helpful in understanding the difficulty that students from one culture can have when being taught by instructors from another.

### **The Demonstration of Critical Thinking in Writing**

In English-language academic writing, instructors generally expect students to demonstrate specific critical thinking skills. The challenges of demonstrating these skills are apparent in the responses of Japanese students at an EMU in Japan, who “were aware of the need to show critical thinking in academic writing but were uncertain as to how this was to be achieved and, if it had been included, whether it was deemed successful” (Bennett, 2018, p. 131).

Tanaka (2014), who interviewed Asian students in an English for Academic Purposes course in the United States, explains, “Several students reported that they had never before been required to consider an opinion opposite their own and represent it equally in writing” (p. 64). One Japanese interviewee comments,

And we just read the sentence from the source paper, and we just like translate or just rewrite the sentence from the source paper. It’s not enough. You need analyze it, and you need keep, you need thinking, thinking more about that. Maybe you, maybe you disagree this sentence, so you have to write why you disagree this sentence but I can’t do it. I

couldn't do it. I just write the simple things. It's totally different American people write. (p. 64)

It should be noted that particular critical thinking skills are being described, and difficulty demonstrating skills in these areas does not indicate difficulty with critical thinking in general. As Rear (2017) points out, "The complaints made by Western academics about Asian students are concerned with a very specific issue: the formulation of arguments in essay writing and/or academic discussion" (p. 27). If Asian students had trouble demonstrating critical thinking skills overall, one would expect this to be apparent across academic areas. Yet, as Rear states, Asian countries ranked the highest on the 2012 Organisation for Economic Co-operation and Development (OECD) Program for International Student Assessment (PISA) in math, reading, and science (OECD, 2014a, pp. 47, 177, 217), and on the PISA problem-solving test (OECD, 2014b, p. 87). On all of these tests, Japan was among the top scorers. More recent PISA results show that Asian countries were again the highest scorers in math, reading, and science (OECD, 2019, pp. 57-61) and on the collaborative problem-solving test (OECD, 2017, p. 70).

Interestingly, Schenck (2015), too, cites the 2012 PISA results (OECD, 2014a), commenting, in reference to the educational focus in Asian countries,

While a commitment to basic core subjects has led to a great deal of achievement, the accomplishment has come at a price. Sole emphasis on standardized tests has led to excessive memorization of facts and procedures, which, in turn, has prevented the cultivation of valuable critical thinking and social skills. (p. 1)

The two sets of comments by Rear (2017) and Schenck (2015) are consistent if one considers that Schenck is describing a particular set of "valuable critical thinking skills" (e.g., the skills expected to be demonstrated in Western academic writing), while at the same time one understands that Asian students excel in other critical thinking skills (the skills that lead to their high PISA scores). However, the chance for misinterpretation highlights the importance of avoiding overgeneralizations, for example, making assumptions about Asian students' overall critical thinking ability based on their writing in English, in a particular format.

### **Familiar vs. Unfamiliar Topics**

Findings by Stapleton (2001) suggest that the difficulty Japanese students have demonstrating critical thinking may not be an issue with academic writing in general; it may be an issue with writing about particular topics. In Stapleton's study, university students were asked to write two essays in English, one about a topic more familiar to them (rice importation to Japan) and one about a less familiar topic (gun control in the United States). The essays were then analyzed for the number of arguments, extent of evidence, recognition of opposing arguments, corresponding refutations, and fallacies. According to the analysis, students demonstrated critical thinking in their writing. However, the essays on the more familiar topic

included more arguments, more refutations of opposing arguments, and more evidence. In addition, these essays had a deeper level of abstraction and more variety in the types of arguments used. Ramanathan and Kaplan (1996) also show a connection between the familiarity of a topic and the demonstration of critical thinking.

### **Language Proficiency**

Language proficiency is another important factor to consider when assessing students for the demonstration of critical thinking. Significant differences have been found when comparing assessments in L1 and L2, as shown by Floyd (2011), using the Watson-Glaser Critical Thinking Appraisal. In addition, Manalo et al. (2013) show that students with higher English proficiency use more evaluative statements in their English essays compared to students with lower proficiency.

### **Limited Amount of Writing**

A lack of writing practice in general, both in English and in Japanese, may also contribute to the difficulty students have applying critical thinking skills in their writing. According to a survey of 300 Japanese university students, “Only 10% ... had received high school instruction in thesis statements, introductory and/or concluding paragraph roles, and other traditional elements of academic English essay writing. None had written formal argumentative papers—in Japanese or English” (Mulvey, 2016, p. 6). Mulvey also cites a MEXT survey of Japanese high school teachers showing that over 40% report little or no essay writing in English classes (MEXT 2012, p. 77).

Describing L1 writing instruction, Mulvey states, “Essay organizational strategies, recognizing and applying critical analysis, and using factual or scholarly support for opinions are not covered in the typical Japanese high school classroom” (p. 5). This is particularly noteworthy when one considers the MEXT Course of Study guidelines for high school Japanese writing. Guidelines from both 2009 and 2018 specify that students should summarize their thoughts in writing based on logical organization, and should explain their opinions in writing, citing evidence from sources (MEXT 2009a, MEXT 2018).

## **Challenges in Improving Instruction**

The MEXT Course of Study high school writing guidelines (MEXT 2009a, MEXT 2018) outline ways in which students could develop the skills needed for English-language academic essays. When one considers Mulvey’s (2016) findings, however, it seems that the guidelines have not been widely implemented. A similar pattern has been noted by other researchers. The 1998 MEXT Course of Study guidelines (MEXT 1998) emphasize the need for more focus on critical thinking, and the same recommendation appears in the 2008 guidelines (MEXT 2008). Yet, according to Okada (2015, 2017), progress toward that goal has been limited. Tahira (2012)

describes a similar lack of progress with MEXT guidelines specifying that English classes should be taught mainly in English (MEXT 2003, MEXT 2009b).

Two contributing factors to the incomplete implementation of MEXT guidelines appear to be inadequate training (Kikuchi & Browne, 2009; Kizuka, 2006; Tahira, 2012) and a lack of time (Katsuno, 2019). The latter is apparent in the results of the OECD's 2018 Teaching and Learning International Survey (TALIS) of teachers from 48 countries. According to the survey results, full-time teachers in Japan work more hours per week than those in any other country. While Japanese teachers actually teach fewer hours per week than average, they devote more time than any other teachers to administrative work and extracurricular activities (OECD, 2020). In explaining the impact that teachers' schedules have on their ability to implement MEXT guidelines, Katsuno gives the following response as an example:

I want to practice more of things like learning by experience and activities in my classes. I want to use student-centered learning. I want to make my teaching more engaging and inspiring so that every student can understand deeply, but I simply can't because I do not have enough time. (p. 92)

In this response, the teacher demonstrates a commitment to students, a desire to teach more effectively, and even an awareness of how to do that. Yet, the example shows that well-planned curricular guidelines and teacher dedication may be outweighed by other factors, for example, overscheduling.

## Recommendations

Considering the challenges that Japanese students face with English-language academic writing, what can language educators do to better prepare them for these assignments?

- Do not assume that students graduating from high school have prior experience explaining their opinions in writing, using support and citations, despite what MEXT guidelines specify.
- When choosing topics for writing assignments, consider the students' level of familiarity with those topics. Topics that are more familiar are likely to result in better demonstration of critical thinking skills.
- When choosing accompanying materials for reading assignments, consider the language level of those materials. Materials that are more understandable are likely to result in better demonstration of critical thinking skills.
- Teach specific critical thinking skills.

### Teaching Critical Thinking Skills

Regarding the last recommendation, there has been continued debate on the question of whether it is possible to teach critical thinking skills independently (not within the context of a

specific subject area) and whether those skills are transferable from one subject area to another. Most notably, Ennis (1989, 1990) proposes that critical thinking is more general, and McPeck (1981, 1990) advocates a more subject-specific view. The approaches to teaching critical thinking also differ, depending on the degree to which skills and content are integrated.

### ***Approaches to Teaching Critical Thinking***

Ennis (1989) describes the following approaches to teaching critical thinking:

- General approach—Critical thinking skills are taught explicitly, apart from any particular subject.
- Infusion approach—Critical thinking skills are taught explicitly within the context of a particular subject area.
- Immersion approach—Critical thinking skills are incorporated with instruction in a particular subject area, but they are not taught explicitly.
- Mixed approach—The general approach is combined with either the infusion approach or the immersion approach.

When deciding which approach to take in teaching critical thinking skills, research findings in the area provide useful insight. According to a meta-analysis by Tiruneh et al. (2014), the general and mixed approaches appear to be more effective than the infusion and immersion approaches. However, Tiruneh et al. note that relatively few studies have been conducted on the general and mixed approaches. Wang’s (2017) examination of other meta-analyses finds the mixed approach to be the most effective, the general and infusion approaches to be moderately effective, and the immersion approach to be the least effective.

Regardless of the approach used to teach them, certain critical thinking skills are particularly necessary when writing English-language academic essays. Some activities that may help students build these skills are:

### **Suggested Activities**

- Rank examples in a list according to how well they support an argument.
- Delete examples from a list if they do not support an argument.
- Given examples of support, write an appropriate argument.
- Prepare arguments, evidence, and rebuttals for an assigned debate topic and side (pro or con). Participate in a debate.
- According to the Socratic method, prepare interview questions, including follow-up questions for an “expert in the field” for an assigned topic. Conduct the interview. With some preparation, the teacher or a student can play the role of expert.
- Watch recorded debates and interviews. Evaluate the participants on the effectiveness of their arguments.
- Given an essay with missing arguments (topic sentences) and/or missing evidence



(supporting sentences), complete the essay.

- Given an essay with evidence that does not support particular arguments and/or arguments that are not appropriate for the evidence, revise the essay.

### Future Research

More research is planned to determine the effectiveness of the suggested activities in building students' critical thinking skills. In addition, research is planned to determine the degree to which the development of these skills in such activities leads to the demonstration of critical thinking in writing. It is the researcher's hope that the results of this future research will allow more effective writing instruction, particularly for students preparing to attend English-medium universities.

### References

- Bean, J. C. (2001). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. John Wiley & Sons.
- Bennett, L. Y. (2018). An exploration of Japanese students' concept and application of critical thinking in academic writing. In R. Ruegg, & C. Williams (Eds.), *English Language Education: Vol. 14. Teaching English for academic purposes (EAP) in Japan* (pp. 123–139). Springer.
- Central Council for Education Working Group on the Internationalization of Universities. (2014, November 14). *Guidelines for building international joint diploma programs including double and joint degree programs*. MEXT. Retrieved November 10, 2020, from [https://www.mext.go.jp/component/b\\_menu/shingi/toushin/\\_icsFiles/afieldfile/2015/04/17/1356863\\_1.pdf](https://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2015/04/17/1356863_1.pdf)
- Dewey, J. (1910). *How we think*. D. C. Heath.
- Ennis, R. H. (1989). Critical thinking and subject specificity: Clarification and needed research. *Educational Researcher*, 18(3), 4–10. Retrieved November 10, 2020, from <https://doi.org/10.3102/0013189X018003004>
- Ennis, R. H. (1990). The extent to which critical thinking is subject-specific: Further clarification. *Educational Researcher*, 19(4), 13–16. Retrieved November 16, 2020, from <https://www.jstor.org/stable/1176383>
- Floyd, C. B. (2011). Critical thinking in a second language. *Higher Education Research and Development*, 30(3), 289–302. Retrieved November 3, 2020, from <https://doi.org/10.1080/07294360.2010.501076>
- Hmeljak Sangawa, K. (2017). Confucian learning and literacy in Japan's schools of the Edo Period. *Asian Studies*, 5(2), 153–166. Retrieved August 3, 2020, from <https://doi.org/10.4312/as.2017.5.2.153-166>
- Katsuno, M. (2019). The relationship between teachers' working conditions and teacher quality. In Y. Kitamura, T. Omomo, & M. Katsuno (Eds.), *Education in the Asia-Pacific Region: Issues, Concerns and Prospects: Vol. 47. Education in Japan: A comprehensive analysis of education reforms and practices* (pp. 87–103). Springer.
- Kikuchi, K., & Browne, C. (2009). English educational policy for high schools in Japan: Ideals vs. reality. *RELC Journal*, 40(2), 172–191. Retrieved November 23, 2020, from <https://doi.org/10.1177/0033688209>

- Kirsznner, L. G., & Mandell, S. R. (2002). *The Holt handbook*, 6th ed. Harcourt College Publishers.
- Kizuka, M. (2006). Professionalism in English language education in Japan. *English Language Teacher Education and Development*, 9(1), 55–62.
- Manalo, E., Watanabe, K., & Sheppard, C. (2013, July 31–August 3). *Do language structure or language proficiency affect critical evaluation?* [Paper presentation]. 35th Annual Conference of the Cognitive Science Society, Berlin, Germany. Retrieved October 31, 2020, from <https://mindmodeling.org/cogsci2013/papers/0531/paper0531.pdf>
- Marginson, S. (2011). The Confucian model of higher education in East Asia and Singapore. In S. Marginson, S. Kaur, & E. Sawir (Eds.), *Higher education dynamics: Vol. 36. Higher education in the Asia-Pacific* (pp. 53–76). Springer.
- McPeck, J. (1981). *Critical thinking and education*. Routledge. Retrieved November 10, 2020, from <https://doi.org/10.4324/9781315463698>
- McPeck, J. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, 19(4), 10–12. Retrieved November 10, 2020, from <https://www.jstor.org/stable/1176382>
- MEXT. (n.d.). *support for internationalization of universities*. Retrieved November 23, 2020, from <https://www.mext.go.jp/en/policy/education/highered/title02/detail02/1373875.htm>
- MEXT. (1998). *Chugakkou gakushuu shidou youryou* [Course of study for junior high schools]. Retrieved January 17, 2021, from [https://www.mext.go.jp/a\\_menu/shotou/cs/1320061.htm](https://www.mext.go.jp/a_menu/shotou/cs/1320061.htm)
- MEXT. (2003). *Eigo ga tsukaeru nihonjin no ikusei no tameno koudoukeikaku an* [Action plan to cultivate “Japanese with English abilities”]. Retrieved November 28, 2020, from [https://www.mext.go.jp/b\\_menu/shingi/chukyo/chukyo4/007/gijiroku/03032401/009.pdf](https://www.mext.go.jp/b_menu/shingi/chukyo/chukyo4/007/gijiroku/03032401/009.pdf)
- MEXT. (2008). *Chugakkou gakushuu shidou youryou* [Course of study for junior high schools]. Retrieved January 17, 2021, from [https://www.mext.go.jp/a\\_menu/shotou/new-cs/youryou/chu/index.htm](https://www.mext.go.jp/a_menu/shotou/new-cs/youryou/chu/index.htm)
- MEXT. (2009a). *Koutougakkou gakushuu shidou youryou* [Course of study for high schools]. Retrieved January 18, 2021, from [https://www.mext.go.jp/component/a\\_menu/education/micro\\_detail/\\_icsFiles/afeldfile/2011/03/30/1304427\\_002.pdf](https://www.mext.go.jp/component/a_menu/education/micro_detail/_icsFiles/afeldfile/2011/03/30/1304427_002.pdf)
- MEXT. (2009b). *Koutougakkou gakushuu shidou youryou gaikokugo eigoban (Kariyaku): Gaikokugo* [Study of course guideline for foreign languages in senior high schools (*Provisional version*): Foreign languages]. Retrieved December 3, 2020, from [https://www.mext.go.jp/a\\_menu/shotou/new-cs/youryou/eiyaku/1298353.htm](https://www.mext.go.jp/a_menu/shotou/new-cs/youryou/eiyaku/1298353.htm)
- MEXT. (2012). *4. Shitsumonshi chousa kekka (seito shitsumonshi/gakkou shitsumonshi)* [Section 4. Results from the questionnaire (student questionnaire/school questionnaire)]. Retrieved November 28, 2020, from [http://www.mext.go.jp/a\\_menu/kokusai/gaikokugo/\\_icsFiles/afeldfile/2013/03/28/1332393\\_2.pdf](http://www.mext.go.jp/a_menu/kokusai/gaikokugo/_icsFiles/afeldfile/2013/03/28/1332393_2.pdf)
- MEXT. (2018). *Koutougakkou gakushuu shidou youryou* [Course of study for high schools]. Retrieved December 6, 2020, from [https://www.mext.go.jp/content/1384661\\_6\\_1\\_3.pdf](https://www.mext.go.jp/content/1384661_6_1_3.pdf)
- Mulvey, B. (2016). Writing instruction: What is being taught in Japanese high schools, why, and why it

- matters. *The Language Teacher*, 40(3), 3–8.
- Norris, S. P., & Ennis, R. H. (1989). *Evaluating critical thinking*. Critical Thinking Press & Software.
- OECD. (2014a). *PISA 2012 Results: What students know and can do (Vol. I, Rev. ed., February 2014): Student performance in mathematics, reading and science*. Retrieved December 1, 2020, from <https://doi.org/10.1787/9789264208780-en>
- OECD. (2014b). *PISA 2012 results: Creative problem solving (Vol. V): Students' skills in tackling real-life problems*. Retrieved December 1, 2020, from <https://doi.org/10.1787/9789264208070-en>
- OECD. (2017). *PISA 2015 results (Vol. V): Collaborative problem solving*. Retrieved December 1, 2020, from <https://doi.org/10.1787/9789264285521-en>
- OECD. (2019). *PISA 2018 results (Vol. I): What students know and can do*. Retrieved December 1, 2020, from <https://doi.org/10.1787/5f07c754-en>
- OECD. (2020). *TALIS 2018 results (Vol. II) - Table II. 2. 52: Full-time teachers' working hours by type of activity*. Retrieved December 1, 2020, from <https://doi.org/10.1787/888934084285>
- Office for Student Exchange. (2010). *Outline of the student exchange system: Study in Japan and abroad 2010*. MEXT. Retrieved November 23, 2020, from [https://www.mext.go.jp/component/english/\\_icsFiles/afieldfile/2011/12/14/1303740\\_1.pdf](https://www.mext.go.jp/component/english/_icsFiles/afieldfile/2011/12/14/1303740_1.pdf)
- Okada, R. (2015). Thinking in the Japanese classroom. *Journal of Modern Education Review*, 5(11), 1054–1060. Retrieved November 28, 2020, from [https://doi.org/10.15341/jmer\(2155-7993\)/11.05.2015/004](https://doi.org/10.15341/jmer(2155-7993)/11.05.2015/004)
- Okada, R. (2017). Conflict between critical thinking and cultural values: Difficulty asking questions and expressing opinions in Japan. *Asian Education Studies*, 2(1), 91–98. Retrieved September 11, 2020, from <https://doi.org/10.20849/aes.v2i1.122>
- Paul, R. W., Elder, L., & Bartell, T. (1997). *California teacher preparation for instruction in critical thinking: Research findings and policy recommendations*. California Commission on Teacher Credentialing.
- Pratt, D. D., Kelly, M., & Wong, W. S. S. (1999). Chinese concept of “effective teaching” in Hong Kong: Towards culturally sensitive evaluation of teaching. *International Journal of Lifelong Education*, 18(4), 241–258.
- Ramanathan, V., & Kaplan, R. B. (1996). Audience and voice in current L1 composition texts: Some implications for ESL student writers. *Journal of Second Language Writing*, 5(1), 21–33. Retrieved November 30, 2020, from [https://doi.org/10.1016/S1060-3743\(96\)90013-2](https://doi.org/10.1016/S1060-3743(96)90013-2)
- Rear, D. (2017). Reframing the debate on Asian students and critical thinking: Implications for western universities. *The Journal of Contemporary Issues in Education*, 12(2), 18–33. Retrieved September 22, 2020, from <https://doi.org/10.20355/C5P35F>
- Rose, H., & McKinley, J. (2017). Japan's English-medium instruction initiatives and the globalization of higher education. *Higher Education*, 75, 111–129. Retrieved October 1, 2020, from <https://doi.org/10.1007/s10734-017-0125-1>
- Schenck, A. D. (2015). Improving education in Confucian countries through analysis of organizational challenges, leadership, and responsibilities. *Journal of International Education and Leadership*, 5(1).

Retrieved August 3, 2020, from <http://www.jielusa.org/wp-content/uploads/2012/01/Schenck-Spring-2015.pdf>

- Shaheen, N. (2016). International students' critical thinking-related problem areas: UK university teachers' perspectives. *Journal of Research in International Education, 15*(1), 18-31. Retrieved September 23, 2020, from <https://doi.org/10.1177/1475240916635895>
- Stapleton, P. (2001). Assessing critical thinking in the writing of Japanese university students: Insights about assumptions and content familiarity. *Written Communication, 18*(4), 506-548.
- Tahira, M. (2012). Behind MEXT's new course of study guidelines. *The Language Teacher, 36*(3), 3-8.
- Tanaka, J. (2014). A dialectical approach to critical thinking in EAP writing. *Second Language Studies, 33*(1), 53-84.
- Tiruneh, D., Verburgh, A., & Elen, J. (2014). Effectiveness of critical thinking instruction in higher education: A systematic review of intervention studies. *Higher Education Studies 4*(1), 1-17. Retrieved November 7, 2020, from <https://doi.org/10.5539/hes.v4n1p1>
- Tweed, R. G., & Lehman D. R. (2002). Learning considered within a cultural context: Confucian and Socratic approaches. *American Psychologist, 57*(2), 89-99. Retrieved August 3, 2020, from <https://doi.org/10.1037/0003-066X.57.2.89>
- Wang, S. (2017). An exploration into research on critical thinking and its cultivation: An overview. *Theory and Practice in Language Studies, 7*(12), 1266-1280. Retrieved November 10, 2020, from <https://doi.org/10.17507/tpls.0712.14>
- Wazir, M., & Wang, L. (2019). Confucius and Chinese philosophical impact on Modern Korea and Japan. *Social Sciences, 8*(6), 299-302. Retrieved September 1, 2020, from <https://doi.org/10.11648/j.ss.20190806.11>

**Appendix**  
**Student Survey**

*Note.* The number of responses appears below each option.

1. How well do you think the Showa courses you took in the semester before you entered the English-medium university prepared you for that university?

Not well	Fairly well	Well	Very well
● 0	● 2	● 5	● 2

2. How well do you think the Showa courses you took two semesters before you entered the English-medium university prepared you for that university?

Not well	Fairly well	Well	Very well
● 0	● 3	● 6	● 0

How well do you think your Showa courses in general prepared you in the following skills before you entered the English-language medium university?

3. Academic reading

Not well	Fairly well	Well	Very well
● 0	● 3	● 5	● 1

4. Academic writing

Not well	Fairly well	Well	Very well
● 2	● 0	● 6	● 1

5. Academic listening

Not well	Fairly well	Well	Very well
● 0	● 3	● 3	● 3

6. Class discussion

Not well	Fairly well	Well	Very well
● 1	● 2	● 3	● 3

7. Computer skills

Not well	Fairly well	Well	Very well
● 1	● 3	● 5	● 0

8. Study skills

Not well	Fairly well	Well	Very well
● 0	● 5	● 3	● 1

9. At the English-medium university, in general, how many hours per day did you/do you study? This does not include time spent in class. It only includes time spent on homework assignments, studying for tests, reviewing course material, etc.

Not more than 1	About 2	About 3	4 or more
● 0	● 2	● 4	● 3

10. In the Showa semester before you entered the English-medium university, in general, how many hours per day did you study? This does not include spent in class. It only includes time spent on homework assignments, studying for tests, reviewing course material, etc.

Not more than 1	About 2	About 3	4 or more
● 3	● 3	● 3	● 0

At the English-medium university, how difficult did you find the following things?

11. Understanding the assigned readings

Not difficult	Somewhat difficult	Difficult	Very difficult
● 0	● 4	● 1	● 4

12. Keeping up with the amount of assigned reading

Not difficult	Somewhat difficult	Difficult	Very difficult
● 2	● 0	● 4	● 3

13. Completing written assignments according to professors' expectations

Not difficult	Somewhat difficult	Difficult	Very difficult
● 0	● 2	● 3	● 4

14. Keeping up with the amount of assigned writing

Not difficult	Somewhat difficult	Difficult	Very difficult
● 1	● 3	● 4	● 1

15. Keeping up with the amount of homework in general

Not difficult	Somewhat difficult	Difficult	Very difficult
● 1	● 4	● 2	● 2

16. Understanding the professors' lectures

Not difficult	Somewhat difficult	Difficult	Very difficult
● 0	● 8	● 1	● 0

17. Understanding classmates during class discussions

Not difficult	Somewhat difficult	Difficult	Very difficult
● 3	● 2	● 3	● 1

18. Participating in class discussions

Not difficult	Somewhat difficult	Difficult	Very difficult
● 1	● 5	● 2	● 1

If you had difficulty understanding assignments, lectures, and/or class discussions, how much of this was related to language and how much was related to background knowledge (knowledge of history, politics, news, etc.)?

19. The level of English used made it \_\_\_\_\_ for me to understand lectures, complete class assignments, and participate in class discussions.

Fairly easy	Somewhat difficult	Difficult	Very difficult
● 0	● 8	● 1	● 0

20. The level of background knowledge required made it \_\_\_\_\_ for me to understand lectures, complete class assignments, and participate in class discussions.

Fairly easy	Somewhat difficult	Difficult	Very difficult
● 0	● 5	● 3	● 1

21. How often did you go to professors' office hours at the English-medium university?

I didn't go	I went a few times	I went fairly often	I went often
● 1	● 6	● 1	● 1

22. How often did you go to the writing center at the English-medium university?

I didn't go	I went a few times	I went fairly often	I went often
● 6	● 2	● 0	● 1