Abstract
The purpose of this paper is to provide readers best practices for undergraduate thesis instruction in Japan and abroad through review of literature from 2019 and 2020 on writing graduation theses. Peer-reviewed journals written in Japanese and English were searched in February 2020 related to graduation thesis instruction. The following database were utilized to obtain literature: CiNii for Japanese and ProQuest and ERIC. Reference books related to writing graduation theses published in Japanese and English were also surveyed. Review of literature related to writing thesis for graduation suggest five key points for supervisors and three key points for administrators at any tertiary institution in terms of the best practices to follow to support their students with their graduation theses. Recommendations for future research based on an analysis of current literature on graduation thesis writing are also noted. Faculty and administrators at universities not only in Japan but abroad will acquire a deeper understanding of how thesis writing as a graduation requirement are taught around the world and ideas to apply the best practices at their own institutions.

Keywords: Thesis, Graduation Requirement, Higher Education, Curriculum, Instruction, Supervision, Administration, Japan, Abroad
Introduction

Are educators employed at their tertiary institutions well-aware of how graduation theses are taught in contexts aside from their own? This paper attempts to inform educators and administrators at tertiary institutions how graduation theses are currently taught and provide an analysis of effective instruction. In particular, the paper may be of help to those who are asked to supervise students’ graduation theses at both the undergraduate and graduate levels. The paper focuses on how graduation theses of undergraduate students are taught in Japan, a context that has not been much explored. Kushimoto (2019) claims that there are a few studies on graduation requirements written in English, so more qualitative and quantitative studies are worth exploring. However, prior to undertaking those types of studies, a careful literature review and analysis is of benefit, particularly for educators who are interested in applying the ideas gained from a comprehensive review to their own teaching contexts. The paper is organized into four sections: (1) students’ and supervisors’ experiences related to graduation theses at tertiary institutions in Japan, (2) students’ and supervisors’ experiences related to graduation theses at tertiary institutions abroad, (3) similarities and differences between students’ and supervisors’ experiences at tertiary institutions in Japan and tertiary institutions abroad, and (4) an analysis of effective instruction of graduation theses deemed applicable to tertiary education context of any location.

Experiences related to graduation thesis writing of students and supervisors in Japan

Three recent peer-reviewed journals, one written in English (Kushimoto, 2019) and two written in Japanese (Asada & Koike, 2020, Nagura, 2018) shed light on the thesis writing experiences of students and supervisors in Japan. Kushimoto (2019) provides an idea of the amount of time undergraduate students spend on their graduation theses. After distributing two national surveys, Kushimoto (2019) found that undergraduates devote 430 hours annually in the humanities and 312 hours in the social sciences for graduation research (hereafter GR). Additionally, according to Kushimoto (2019), GR is more prevalent in national universities compared to private universities; and degree programs with compulsory GR is 87.8 percent in the humanities and 50.6 percent in the social sciences. The majority of respondents spent fewer than 11 hours on GR per week for humanities, although 8.3 percent devoted more than 30 hours per week. Using the median of each class examined, the average per week was 12.3 hours (Kushimoto, 2019). For social sciences students, the majority of students spent less than 6 hours on GR per week with only 2.5 percent allocating more than 30 hours. The median of each class examined was 8.9 hours per week (Kushimoto, 2019). Asada and Koike (2020) wrote a paper together, with Koike writing a separate graduation thesis based on literature review and incorporating a high school teacher’s training experience at a high school that Asada teaches. Because teacher training sessions are required prior to undergraduate students obtaining their national teaching licenses at elementary, middle, or high schools in Japan, Koike is receiving training from Asada to become a high school teacher after graduation and receiving support from the supervisor at a tertiary institution where Asada at the time attended. At the same time, Asada is writing a paper as the first author for professional development. Asada and Koike’s (2020) paper suggests that undergraduate theses of Japanese university students involve not only support from supervisors at university but also from those outside of the university such as teachers (i.e., in this case a high school teacher) and students (i.e., in this case high school students of Asada’s class who Koike assisted providing lessons for). Similarly, Nagura (2018) analyzed the author’s own undergraduate-level seminar’s theses in terms of how the undergraduate students in Japan were able to apply their fieldwork in China to their theses. Nagura (2018)
points out that the successful theses reviewed the literature carefully prior to fieldwork in China, whereas the unsuccessful theses jumped to conclusions without careful consideration of the preexisting literature. Nagura (2018) claims that although supervisors need to provide advice on what students were not able to come up with and have students think critically on points that need reflection, upon reflection after examining the students’ final thesis, she admits that there was a student in her seminar who she thinks did not receive sufficient advice or encouragement to think critically.

Experiences related to graduation thesis writing of students and supervisors abroad

While current literature written on graduation theses abroad do not mention time taken for theses nor shed light on specific cases of how theses are completed, much of the literature emphasizes the importance of collaboration among students and supervisors (McCartney, Clements, Cahalan, Johnson, & Pace, 2020; Sulandari, Prihartanti, Ali, Marida, Savitri, & Wijayanti, 2020). In particular, research on students’ experiences of thesis writing point to the importance of supervisory support (Jiang & Yan, 2020), and includes specific suggestions for how supervisors can provide support effectively, particularly through the teaching of literature review (Herrström, Larsson, Einberg, Nilsson, Blomqvist, & Garmy, 2020; Suwito, Purwanto, Parta, Irawati, & Dika, 2019) and through understanding each of their students’ uniqueness in educational background, interests, and abilities (Arif & Huda, 2019; Zhang & Pramoolsook, 2019). Additionally, at a broader level, past research suggests the importance of each institution’s stakeholders being aware of how the curriculum and coordination among the administrators, faculty and staff influences the students’ quality of their graduation theses (Herrström, Larsson, Einberg, Nilsson, Blomqvist, & Garmy, 2020; Kalpokaite and Radivojevic, 2020; Perrella, Dam, Martin, MacLachlan, & Fenton, 2020; Rosyidi, Budiningsih, & Wakhid, 2019; Sun, Graves, & Oliver, 2020). Finally, research related to graduation thesis writing of students and supervisors abroad suggest that weaknesses in graduation theses of graduate students may be ameliorated if students build a solid academic foundation in their undergraduate programs (Ebadi & Pourahimadi, 2019; Farahian, Parhamnia, & Avarzamani, 2020; Ravari & Kok, 2019; Shahsavvar & Kourepaz, 2020). Detailed explanation of those points will be provided hereafter.

First, much of the literature on graduation thesis requirements abroad at the undergraduate level emphasizes the importance of collaboration among students and supervisors. With collaboration among students, Sulandari, Prihartanti, Ali, Marida, Savitri, & Wijayanti (2020) used a quantitative data collection approach involving 719 Indonesian undergraduate students and found that students who chose independent research as their type of research were able to finish their undergraduate thesis faster than those who chose joint research. The researchers point out that collaboration with other students might have encouraged the development of more thoughtful and creative theses, and in return, the final product may have taken more time for completion compared to theses based on independent studies. Insights from the researchers suggest that more efficient independent study is not always better than working on theses in groups, as the group projects can encourage discussion, creativity, and better quality. Considering the pros and cons of group work, supervisors, after considering the curricula that students learned from and the purpose of the thesis for their institution, need to ultimately decide whether their theses will be group work or independent work. To encourage collaboration not only within the group of students supervised under one main faculty member, McCartney, Clements, Cahalan, Johnson, and Pace (2020) suggest that institutions need cost-effective and impactful ways to advance undergraduate research (UR) initiatives. The researchers reviewed the creation of an interdisciplinary Undergraduate Research Club at
Townson University, a four-year state institution north of Baltimore in the United States with just over 19,000 undergraduates, and claim that the faculty, students, and staff all need to cooperate for undergraduate research initiatives to function effectively. In particular, the researchers emphasize that meaningful faculty guidance and staff support is essential, especially because students are providing academic advice to each other. Faculty members and administrators need to be careful about how the size of the undergraduate programs can affect how undergraduate research initiatives are executed at individual institutions.

Second, the importance of supervisors’ support, specifically in terms of taking the time to provide feedback for the students on their papers, and helping undergraduate students build a strong foundation is suggested from current research. As for providing feedback on students’ papers, Jiang and Yan (2020) analyzed supervisor feedback on 32 undergraduate thesis revisions from eight students in terms of error feedback and non-error feedback and found that both types of feedback can significantly improve the overall expressions of papers for Chinese students writing their theses in English. This finding from the researchers suggests that if papers are written in English by those whose native language is not English, feedback from faculty who are competent in the language can lead students to improve expressions on their papers. Similarly, faculty members who are more used to publications and writing academic papers than students can allow students to develop the academic writing skills necessary for undergraduate students, which is helpful for students particularly should they decide to attend graduate school in the future.

Third, existing research associated with graduation thesis writing of undergraduate students abroad suggest the importance of supervisors in assisting students conducting literature reviews well for their theses. For example, Suwito, Purwanto, Parta, Irawati, and Dika (2019) reviewed the development of research-based learning applied in Indonesia at the undergraduate level and claim that because thesis proposals are not easy, a learning model for students oriented towards reviewing journals as the main activity needs to be applied. Specifically, the researchers note that the following components integrated into teaching to make proposals can help students overcome obstacles: (1) recognizing the concept of the research journal at hand, (2) obtaining sources that are reputable and up to date, (3) facilitating guided discussion on the journal’s results, and (4) facilitating the formulation of research ideas. Herrström, Larsson, Einberg, Nilsson, Blomqvist, and Garmy (2020) recommends that search documents are used in both formative and summative assessments to evaluate students’ search strategies. Synthesizing the ideas from Suwito, Purwanto, Parta, Irawati, and Dika (2019) and Herrström, Larsson, Einberg, Nilsson, Blomqvist, and Garmy (2020), for instance, it is reasonable for faculty members supervising undergraduate students to make part of their grading students’ notes and contribution to discussion, if supervisors are assigned an undergraduate thesis writing course at their institution. It would also be reasonable for faculty members to consider arranging time with the institution’s librarian to assist students with conducting their search.

Fourth, past research on graduation thesis writing of undergraduate students abroad emphasize the importance of supervisory support through understanding each of their students’ uniqueness in educational background, interests, and academic abilities. In support of the importance of considering individual uniqueness of students, Arif and Huda (2019) explored the process by which undergraduate students select their research topic and design by purposive interviewing ten Indonesian graduates from different educational backgrounds and found that self-reflection of their past interests, perceived competence, friends’ preferences, input from past courses, level of curiosity, library research, autonomy, and
supervisors’ expertise and suggestions were major factors associated with their motivation to work on their theses. The researchers’ findings suggest the benefits of getting to know students in terms of the aforementioned factors of motivation during the first session of their undergraduate thesis writing course can enhance the overall quality of the supervisor’s feedback towards their students.

Additionally, research conducted by Zhang and Pramoolsook (2019) suggest the importance of supervisors in noting the differences of each student’s ability to: summarize and transmit information they learned clearly, provide sources to support their claims, and synthesize, analyze, and critique the information they retrieved from their search. Zhang and Pramoolsook (2019) analyzed how 40 highly-rated undergraduate theses written by English majors at a Chinese university were written, and found that reports were most extensively used by the thesis writers to transmit the knowledge they learned, and the writers also tended to use arguments that signaled critical evaluation of documents they referred to for writing their theses. The analysis the researchers provided showed that reports, arguments, and text responses made up 84 percent of their entire corpus. While the percentages may be different for students in other cultural contexts, the value of reporting information clearly, making sound arguments based on critical evaluation of texts are important components of thesis writing.

Fifth, in addition to the crucial role of supervisors in enhancing students’ graduation theses writing quality, past research suggests the importance of each institution’s stakeholders not limited to supervisors to be aware of how the curriculum and coordination among the administrators, faculty, and staff influences the students’ quality of their graduation theses. In terms of faculty coordination with other staff, Herrström, Larsson, Einberg, Nilsson, Blomqvist, and Garmy (2020) conducted a retrospective qualitative study in which two librarians and four faculty members randomly examined selected 89 theses from the years 2012, 2014, and 2016, and found that significant improvement was shown over the years regarding the use of a sufficient number of synonyms, matching search terms to the respective database, use of the Boolean operator OR, and the use of subject headings and free text searches. The searches became more structured with increases in block searches. The findings from the researchers suggest the value of the faculty collaborating with librarians in assisting undergraduate students with research, not only for just one year when faculty members are assigned to teach an undergraduate thesis writing course but collaborating over several years for them to refine their ability as working members of the institution in facilitating students’ learning.

In terms of the administrators’ coordination with other faculty, Kalpokaite and Radivojevic (2020) conducted a descriptive qualitative case study, exploring students’ experiences in a qualitative research course for undergraduate psychology students and found that the students who participated in the course perceived the course to provide new knowledge and skills they felt would be useful for their professional and personal lives. The students also recognized that the qualitative research course was an important complement to their predominantly quantitative curriculum. According to Kalpokaite and Radivojevic (2020), many students shared that they initially thought that qualitative research was less scientific than quantitative research, but after they experienced qualitative research for themselves, they appreciated the usefulness and importance of analyzing rich data. Students initially felt that the research diaries they were asked to keep were not useful but found that they were useful in the analysis phase after data collection through interviews. Their research suggests that depending of the aims of each department, the administrators need to offer qualitative and
quantitative research courses comprehensible for the students that can help students move beyond reviewing existing literature when deemed appropriate.

In terms of the administrators coordinating the broader curriculum, research encourages institutions to be mindful of how the curriculum is structured to prepare students to write their graduation theses at the undergraduate level. Perrella, Dam, Martin, MacLachlan, and Fenton (2020) conducted a qualitative exploratory research at McMaster University, in Ontario, Canada, that employed one on one interviews with key faculty members and focus group discussions with undergraduate students and found two principal models that characterize undergraduate research and inquiry: the scaffold model and the bookend model. In the scaffold model, inquiry was described as formulating a research question and finding an answer. As Perrella, Dam, Martin, MacLachlan, & Fenton (2020) argue, in the scaffolding model, one of the benefits is building resilience, as students often experience failure and need to troubleshoot, which students perceive as a valuable skill that can be applied after graduation. As opposed to the scaffolding model in which inquiry is scaffolded throughout the students’ undergraduate years, the bookend model has a standalone course in year one and reintroduced in year four. The bookend model is valued to have skills transferred beyond students’ undergraduate education and help build critical and analytical skills. In contrast to the two effective models that have been mentioned, in an abstract model, there is a lack of culture of student contribution and utility and minimal values are identified. Administrators clearly conveying to the faculty members what model their institutions operate and with shared knowledge of how the courses fit together to support students’ thesis writing, the faculty members will be informed to guide students to write their theses well.

Successful examples of coordination are also mentioned in literature pertaining to undergraduate students’ thesis writing experiences abroad. In terms of coordination of the faculty’s schedules in evaluating students’ theses, Rosyidi, Budiningsih, and Wakhid (2019) developed a mathematical model to solve scheduling problems for undergraduate thesis examinations in the Industrial Engineering Department of Universitas Sebelas Maret in Indonesia. The authors claim that the model is more efficient than manual scheduling done by the coordinator. The model developed by Rosyidi, Budiningsih, and Wakhid (2019) is planned to be developed by the coordinator so that the scheduling process will become more efficient. Evaluation of theses by a committee instead of only one supervisor can encourage students to exert the effort to write theses with care, as the Achilles heel of students’ theses may be pointed from various perspectives. Furthermore, feedback from the committee with varying ideas provides students with a rich educational experience, that can encourage students to examine their own work critically. As with an example of coordinating the curricula effectively, Sun, Graves, and Oliver (2020) reviewed the state of undergraduate research opportunities (UROs) in the life sciences across various institutions, and the survey data gathered in 2019 from 20 departments in 14 universities showed that all responding departments offer well-established forms of research that include credit-based directed studies or honors-thesis courses. Paid research opportunities are offered by 80 to 95 percent of the responding departments (Sun, Graves, & Oliver, 2014). Additionally, According to Sun, Graves, and Oliver (2014), some institutions offer a subset of awards for students with international status. Departments need to develop their vision and exert their energy towards their vision in order to continue enhancing the educational services provided for students and to successfully coordinate services that involve multiple stakeholders.

Sixth and finally, research related to graduation thesis writing of students and supervisors abroad suggest that weaknesses in graduation theses of graduate students may be ameliorated
if students had built a solid academic foundation in their undergraduate programs. For example, Ebadi and Pourahimadi (2019) interviewed 40 EFL postgraduate students and ten supervisors selected randomly based on availability from five major Iranian universities and found that both the students and supervisors feel the students’ lack of research knowledge including the inability to write academically using academic vocabulary, lack of research design knowledge, and choosing a researchable topic. According to Ebadi and Pourahimadi (2019), postgraduate students cannot choose their topics easily because they either believe it is the supervisors’ responsibility or they need to select a topic that has not been previously selected. Furthermore, postgraduate students reported that they think writing theses is time-consuming, impractical, and compulsory. Supervisors noted that many postgraduate students are not capable of managing time properly by balancing their theses and their life. Experiences of students abroad at the graduate level suggest the importance of supervisors preparing undergraduate students by keeping in mind the possibilities of their students deciding to enroll in graduate school after completing their undergraduate program. Not only should administrators consider curricula so that research design courses are offered but also, research suggests the importance of supervisors pointing out the value of conducting research starting at the undergraduate level, so that some students who think that graduation thesis writing theses are compulsory can understand the value in conducting their own research.

Research related to graduation theses of graduate students also points to the importance of allocating the time and energy to provide clear and specific feedback in order to motivate students, starting from the undergraduate program. For example, questionnaires administered by Farahian, Parhamnia, and Avarzamani (2020) found that 84.9 percent of the respondents strongly believed that supervisors do not adequately supervise students’ thesis. In addition, Farahian, Parhamnia, and Avarzamani (2020) examined perceptions of Iranian university instructors related to the reasons for prevalence of plagiarism in Iranian students’ theses. With a self-designed questionnaire competed by 291 instructors and a semi-structured interview that followed, the perceived reasons for plagiarism were: students’ unfamiliarity with the concepts of plagiarism, inadequate training regarding citation rules, lack of decisive action against academic dishonesty, lack of motivation among postgraduate students, and instructors’ lack of adequate care regarding the process of thesis development.

Research related to graduation theses of graduate students also point to the value of educating undergraduate students to review existing literature carefully to succeed at graduate school. For instance, Shahsavar and Kourepaz (2020) examined 40 completed master theses at a university abroad, had 10 postgraduate students take part in voluntary semi-structured interviews, and found that students mainly focused on summarizing other researchers’ findings and interpretations and were not able to synthesize, critique or explain the literature in writing. Additional issues that emerged were lack of sufficient knowledge and time to complete their literature review and deliberate dereliction of some supervisors who did not provide students sufficient feedback. According to Shahsavar and Kourepaz’s (2020) research, some of the students argued that their professors rarely focused on writing an effective literature review. Additionally, while most students were good at summarizing each work and lining the work with the purpose of their own study, they had major weaknesses in reporting the gaps in the previous studies.

Past research also suggests the importance of having students collaborate with those aside from their supervisors. However, collaboration, as previously argued with graduation thesis writing experiences of undergraduate students, can be time consuming, and can prevent additional mental challenges. Because of these additional challenges and multiple channels of
feedback, supervisors need to pay close attention to the state of each students’ progress on their theses and provide clear feedback. Research by Ravari and Kok (2019) interviewed 50 MA English majors from 11 tertiary institutions in Tehran and found that through the master’s theses write-up phase, the non-native students learned not only to interact with their supervisors but also with members of various academic communities via networking in person and online. Time management skills and mood management skills were reported to be perceived challenges of those students. According to Ravari and Kok (2019), most of the students reported that unclear and general feedback made the process of writing the MA thesis time consuming and did not contribute to producing meaningful content.

**Similarities and differences: Japan and abroad**

Prior to identifying and analyzing the similarities and differences between graduation thesis writing experiences of students in Japan and abroad, a summary of experiences related to graduation thesis writing in Japan and abroad will be provided. For experiences related to graduation thesis writing in Japan, (1) specific amount of time spent on writing graduation theses are stated (Kushimoto, 2019); (2) collaborative style by faculty members in getting students connected with outside sources of support such as incorporating fieldwork abroad and teacher training sessions as part of obtaining teachers’ licenses into their students’ theses are evident (Asada & Koike, 2020; Nagura, 2018); (3) the importance of supervisor feedback particularly in terms of getting students to think critically is emphasized (Nagura, 2018); and (4) the importance of having conducted a thorough literature review for students’ undergraduate theses are emphasized (Nagura, 2018). As for experiences related to graduation thesis writing abroad, (1) collaboration among students and supervisors are emphasized (McCartney, Clements, Cahalan, Johnson, & Pace; Sulandari, Prihartanti, Ali, Marida, Savitri, & Wijayanti, 2020); (2) the importance of supervisors’ support, specifically in terms of taking the time to provide feedback for the students on their papers to build a strong academic foundation is emphasized (Jiang & Yan, 2020); (3) the importance of supervisors’ support, especially in terms of helping students to conduct literature reviews well is emphasized (Herrström, Larsson, Einberg, Nilsson, Blomqvist, & Garmy, 2020; Suwito, Purwanto, Parta, Irawati, & Dika, 2019); fourth, the importance of supervisors’ support through understanding each of their students uniqueness in educational background, interests, and academic abilities is emphasized (Arif & Huda, 2019; Zhang & Pramoolsook, 2019); fifth, the importance of each institution’s stakeholders not limited to supervisors, to be aware of how the curriculum and coordination among the administrators, faculty, and staff influences the students’ graduation theses quality is emphasized (Herrström, Larsson, Einberg, Nilsson, Blomqvist, & Garmy, 2020; Kalpokaite & Radivojevic, 2020; Perrella, Dam, Martin, MacLachlan, & Fenton, 2020; Rosyidi, Budiningsih, & Wakhid, 2019; Sun, Graves, & Oliver, 2020); and sixth, current research suggests that weaknesses in graduation theses of graduate students may be ameliorated if students had built a solid academic foundation during their undergraduate years (Ebadi & Pourahimadi, 2019; Farahian, Parhamnia, & Avarzamani, 2020; Ravari & Kok, 2019; Shahsavar & Kourepaz, 2020).

The similarities and differences, based on the summary in the previous paragraph is as follows. As for the similarities: (1) the important role of the supervisors in facilitating student learning is emphasized, particularly with the role of getting students to think critically, having students conduct a thorough literature review and providing clear feedback; (2) the importance of students’ collaboration not only with faculty but with other sources of support are emphasized. As for the differences; (1) no specific amount of time spent for undergraduate students writing their theses abroad is mentioned for graduation theses writing
abroad, and collecting data for national or regional surveys may be of merit for practitioners guiding students in those nations or regions; (2) students’ perceptions of the quality of supervisors’ feedback has not been documented in Japan and can merit investigation particularly for faculty members in Japan to refer to in order to improve the quality of supervision in Japan; (3) there is an absence of literature focusing on graduation thesis instruction within the institutions’ curricula in Japan, and research into how graduation theses are taught and analysis of the differences in the quality of students’ output may shed light on the improvements tertiary institutions in Japan can make for thesis instruction; (4) there is an absence of literature on how graduation theses of graduate students are taught, and understanding how graduate students in Japan are taught can help inform faculty members teaching undergraduate students how to prepare students for graduate school.

**Conclusion: Best practices for thesis instruction at the undergraduate level**

While much remains to be researched to develop best practices for thesis instruction at the undergraduate level, implications based on available literature is worth noting for supervisors facilitating students to write graduation theses at the undergraduate level and administrators refining their institutional curricula for optimal student learning. First, current literature across the globe suggests the importance of the role of supervisors. It is advisable that each supervisor: (1) identify each students’ academic background including research courses taken, abilities, and interests; (2) identify opportunities to collaborate with other sources of support aside from themselves for enrichment of students’ learning; (3) train students to understand what to look for in their literature review search, have students examine previous literature critically and explain the literature in writing; (4) be conscious to provide clear and frequent feedback; and (5) carefully consider whether an independent thesis or having students write a thesis as a group is more appropriate considering the academic experiences, abilities, and interests of the students and the curriculum and the mission of the institution. For administrators, it is advisable to (1) continue to examine and refine how each course in the institution’s curricula relates to aiding students’ completion of their graduation theses (2) consider faculty development opportunities for supervisors and staff to guide students to complete their thesis writing, and (3) consider how collaborating with sources of support outside of their own institution can support students with their thesis writing development.
References


