OUTCOMES OF ESTABLISHMENT, PROMOTION AND PARTICIPATION IN THE RESEARCH EXCHANGE/LABORATORY INTERNSHIP BY INTERNATIONAL ACTIVITIES*

ผลลัพธ์ของการก่อตั้ง ส่งเสริม และการมีส่วนร่วมในการแลกเปลี่ยนการวิจัย/ฝึกประสบการณ์ด้วยกิจกรรมนานาชาติ

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Abstract

Objectives of this research were: 1 to establish the research exchange/laboratory Internship between Shibaura Institute of Technology (SIT) in Japan and Nakhon Ratchasima Rajabhat University (NRRU) in Thailand and to evaluate the program from the perspective of both exchange students and the SIT professors. The Research Exchange/Laboratory Internship Project is the educational exchange program of the Shibaura Institute of Technology (SIT). This program allocates scholarships to students of partner universities to conduct research in Japan at SIT's laboratories. Nakhon Ratchasima Rajabhat University (NRRU) in Thailand is one of the partner universities; it joined this program in 2016. Eighteen NRRU students participated in the program under exchange scholarships and joined research laboratories at SIT in 2017 and 2019, where they experienced research and global events. This article describes the processes in place at NRRU to promote and support the exchange program.

The results of program evaluations by exchange students and laboratory supervisors show that this exchange program enhances the cross-cultural skills of attendees and promotes internationalization of both the host and home at level good and outstanding. Although the international activities in 2020 and 2021 have been suspended temporarily because of the novel coronavirus (COVID-19). In the

*Received March 28, 2021; Revised July 20, 2021; Accepted August 3, 2021

future, these activities will set again in Japan after the policy of Japan allows exchange students to enter the country again.
Keywords: Student Exchange Program; International Internship Project; Promoting and Participating; Establishment of New Project

บทคัดย่อ

วัตถุประสงค์ของงานวิจัยนี้คือ 1. เพื่อตั้งโครงการแลกเปลี่ยนนักศึกษาวิจัย/ฝึกประสบการณ์ปฏิบัติการนานาชาติระหว่างสถาบันเทคโนโลยีชิบาอุระประเทศญี่ปุ่น และมหาวิทยาลัยราชภัฏนครราชสีมา 2. เพื่อประเมินโครงการใหม่นี้ทั้งมุมมองนักศึกษาแลกเปลี่ยนและอาจารย์ที่ปรึกษาประจำห้องปฏิบัติการนานาชาติ โครงการนี้ได้มอบทุนการศึกษาให้กับนักศึกษาที่สังกัดสถาบันภาคีเครือข่ายเพื่อโอกาสฝึกประสบการณ์วิจัยในห้องปฏิบัติการของสถาบันเทคโนโลยีชิบาอุระ ซึ่งมหาวิทยาลัยราชภัฏนครราชสีมาได้ลงนามบันทึกความเข้าใจเพื่อร่วมเป็นสถาบันภาคีเครือข่ายกับสถาบันเทคโนโลยีชิบาอุระตั้งแต่ พ.ศ. 2559 นักศึกษาของมหาวิทยาลัยราชภัฏนครราชสีมาจำนวน 13 คนได้เข้าร่วมโครงการแลกเปลี่ยนดังกล่าว ตั้งแต่ปี พ.ศ. 2560 ถึง 2562 เพื่อพัฒนาประสบการณ์วิจัยในระดับนานาชาติ บทความนี้ได้นำเสนอกระบวนการที่ได้จัดขึ้นโดยมหาวิทยาลัยราชภัฏนครราชสีมา เพื่อประชาสัมพันธ์ เตรียมพร้อมและช่วยเหลือนักศึกษาที่สมัครโครงการแลกเปลี่ยนดังกล่าว

ผลของการประเมินโครงการโดยนักศึกษาที่เข้าร่วมโครงการแลกเปลี่ยนแสดงให้เห็นว่านักศึกษาได้เพิ่มพูนทักษะการทำงานระหว่างวัฒนธรรมและภาษาที่แตกต่างได้อย่างชัดเจน และยังมีผลการประเมินนักศึกษาเป็นรายบุคคล จากห้องปฏิบัติการของประเทศญี่ปุ่นอยู่ในระดับดีและดีมาก ซึ่งโครงการนี้ได้พัฒนาความเป็นสากลของทั้งสถาบันที่เป็นเจ้าภาพและสถาบันที่เข้าร่วมโครงการ ถึงแม้ว่ากิจกรรมของปี 2563 และ 2564 ได้หยุดชะงักลงชั่วคราวเพราะสถาณการณ์โควิด ในอนาคตกิจกรรมนี้จะเกิดอีกครั้งที่ประเทศญี่ปุ่น เมื่อนโยบายของประเทศญี่ปุ่นได้อนุญาตให้นักศึกษาแลกเปลี่ยนได้เข้าประเทศอีกครั้ง
คำสำคัญ: โปรแกรมแลกเปลี่ยนนักศึกษา; โครงการฝึกงานระหว่างประเทศ; การส่งเสริมและการมีส่วนร่วม; การจัดตั้งโครงการใหม่

Introduction

International collaboration or knowledge transfer among universities is beneficial to all university stakeholders (e.g., students and their parents, faculty members, staff members, alumni, and affiliated industries). In addition, this cooperation plays an important role in the development of social sciences. Universities around the world have been exploring opportunities to form

international partnerships and supportive relationships with overseas institutions. With limitless communication channels and inexpensive travel, the trend of internationalization has rapidly increased. For instance, according to Davis, Can, Pindrik, Rocque, and Johnston, Ho Chi Minh City in Vietnam and Birmingham in the United States work together using virtual interactive presence and augmented reality, which is a model of a low-priced method in global surgical education. The key to creating an agreement between partner universities is (1) research and development and (2) teaching and instruction (Helms, 2015). Global and cultural awareness is one of the 13 essential skills that 21st century students need in order to understand and address global issues, particularly interaction in English. Furthermore, students should be able to both learn and work collaboratively in different contexts—personal, work, and community—with individuals from diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialog (Clarke, 2004).

The Shibaura Institute of Technology (SIT) is one of the top 37 global universities in Japan (MEXT, 2017), and Nakhon Ratchasima Rajabhat University (NRRU) in Thailand places a strong emphasis on global collaboration. Moreover, there is a big university in Nakhon Ratchasima province as Suranaree University of Technology (SUT) which has a good collaboration between SIT and NRRU as well.

The Research Exchange/Laboratory Internship Project at SIT is an academic program that gives students opportunities to work on research projects for a period of one week to one year (SIT, 2018). The program is conducted in English. The Japan Student Services Organization supports a scholarship for each student. The project is conducted under the supervision of a SIT faculty member in a culturally diverse and vibrant academic environment. By taking advantage of the flexible nature of the non-degree program offerings at SIT, students can pursue research topics of their choice while experiencing Japanese culture. For brief explanation of the program's timeframe, the first step of the program is the arrival of participating students who set a goal for their research at SIT by consulting with their supervisors. During the period of the program, students conduct research under the supervision of SIT professors. On completing their research, they are required to submit a report on their outcomes to SIT.

The aim of this paper is to describe the Research Exchange/Laboratory Internship Project between NRRU and SIT. NRRU promotes the program, helps applicants with their preparation, and supports students who are conducting their research in Japan up until the final post-program presentation. The current paper presents an evaluation of the program from the perspective of both exchange students and the SIT professors who supervise them. The final evaluations raise issues that could lead to improvements in the program.

Research Objectives

1. To set the research exchange/laboratory Internship between NRRU and SIT

2. To evaluate the program from the perspective of both exchange students and the SIT professors

Methodology

1. Establishment the Program

Timeline of collaborative events among NRRU, SUT and SIT started when an NRRU lecturer enrolled in a Ph.D. course at SIT in 2013. Three years later, the official agreement for academic exchanges and cooperation between NRRU and SIT was signed by the presidents of both universities. During their six years of collaboration, the universities have participated in activities such as Global Internships, Global Project-Based Learning (Oda et al., 2016), the Ph.D. enrollment of an NRRU faculty member, and a Research Exchange/Laboratory Internship Project. NRRU and SIT have collaborated on research and development, teaching instruction, and the development of human resources.

2. Promoting the Program

To promote the Research Exchange/Laboratory Internship Project at SIT, NRRU staff and faculty members sent posters announcing the program to university departments of science and technology, industrial technology, and engineering, and these posters were displayed on boards in each department. Furthermore, the announcement was displayed on the home webpage of the NRRU Faculty of Industrial Technology (Faculty of Industrial Technology, NRRU, 2018) and on the home webpage of the NRRU International Affairs Office (IAO)

(IAO, NRRU, 2018a).The announcement was also posted via social media such as the Facebook fan pages of the Department of Electronics and Telecommunication Technology and the Faculty of Industrial Technology at NRRU. These announcements are shown in Figure 1. According to the survey results, most of the applicants learned about the program through the Facebook page announcement. In addition, NRRU departmental staff who were interested in the program invited IAO staff and experienced students to motivate their students to apply (IAO, NRRU, 2018e).

1) Recruiting Participants

Students who were interested in joining the program contacted the staff at the IAO of NRRU to receive preliminary information. They had to prepare documents such as the program application form, transcripts, an English language score report, recommendation letters, résumés, and research plans. SIT put in place several flexible options for admissible English language testing reports. Applicants could submit scores of standard examinations such as TOEIC, TOEFL, and IELTS. Letters from the applicant's home university attesting to satisfactory English skills were also acceptable. The IAO administered an English examination for program applicants in 2017 using the Cambridge English Assessment (2015). For the program in 2018, the Faculty of Industrial Technology held a pre-TOEIC test for applicants. Altogether, there were 18 NRRU applicants who passed the SIT screening and won the exchange scholarship from JASSO.

Figure 1: The Internship announcements in each area

2) Preparation for the Program

The preparation program helped applicants with their English language skills, knowledge of research, and perspectives on living abroad.

2.1) English language preparation

Applicants participated in two major activities to help improve their English skills. The first activity was the NRRU Toastmasters Club for developing public speaking skills (NRRU Toastmasters Club, 2018). At the bimonthly meetings, club members were able to practice their communication and leadership skills (Sun, 2008). The IAO also encouraged applicants to join the Toastmasters Club by providing extra support from their budget. The second activity was a TOEIC preparation course. For the 2018 exchange program, the applicants had their English language skills evaluated by taking a pre-TOEIC test, and then the Faculty of Industrial Technology offered them a TOEIC preparation course. The average score of the 2018 applicants was 395 out of 990, with a standard deviation of 180.

2.2) Research preparation

To prepare applicants in terms of their research skills, a research seminar was conducted. An NRRU team of supervisors that consisted of lecturers in the applicants' departments was organized. The duty of the supervisors was to guide applicants in their research plans and preparations and to comment on the applicants' seminar presentations (IAO, NRRU, 2018d). The NRRU team of supervisors was an important source of support for students when conducting research in the SIT laboratories. The seminars were presented in English; applicants had to select publications to study and then deliver a 15-minute presentation in English (see Figure 2).

2.3) Guidance from experienced SIT exchange students

The Research Exchange/Laboratory Internship Project participants had a chance to experience new food, culture, and customs, and also to soak up the social atmosphere. It is often difficult for students to survive abroad without prior guidance, and most of the applicants had never been abroad before. Therefore, for the exchange program, guidance sessions were set up for the applicants. An NRRU faculty member who graduated from SIT was invited to share about his experience of living in Japan and studying at the SIT laboratory, and exchange students who had participated in the 2017 program were also invited to take part in the sessions and share their experiences with the applicants (see Figure 3).

Figure 2: The applicants presented their research papers in English

Figure 3: The students who had participated in the 2017 program shared their experiences

3. Participation in the Program

For activities of the Research Exchange/Laboratory Internship Project, students were given a briefing, student cards, and scholarship money on their first day. After that, they carried out their research in the SIT laboratories under the supervision of SIT professors. Besides their research work, students had to submit a daily report on their progress to the NRRU supervisors' team. SIT set up additional activities for the exchange students such as visiting SIT's Toyosu campus and the Ricoh Eco Business Development Center. Figure 4 shows a photo of students and supporting faculty members from SIT and NRRU at the final presentation session. In 2018, four students joined the program for two weeks, and one student joined for a period of one year (IAO, NRRU, 2018c).

Figure 4: Final presentation by NRRU students at Omiya campus, SIT.
(IAO, NRRU, 2017)

4. Final Presentation at NRRU

After completing the exchange program at SIT, the IAO organized a presentation session at NRRU for the students who participated in the 2017 and 2018 programs. The session was held in English, and each exchange student had to present their research activities at SIT, including information about their experiences regarding living in Japan. Audience members included the NRRU administration team, the NRRU supervisors' team, IAO officers, lecturers, students, and other interested parties. The objective of the final presentation session was to present the outcome of the exchange program in terms of both research and the experience of living abroad to promote the exchange program. The seminar included a question and answer session after students' presentations. There were a number of questions from NRRU students who were interested in applying to the exchange program the following year (IAO, NRRU, 2018b).

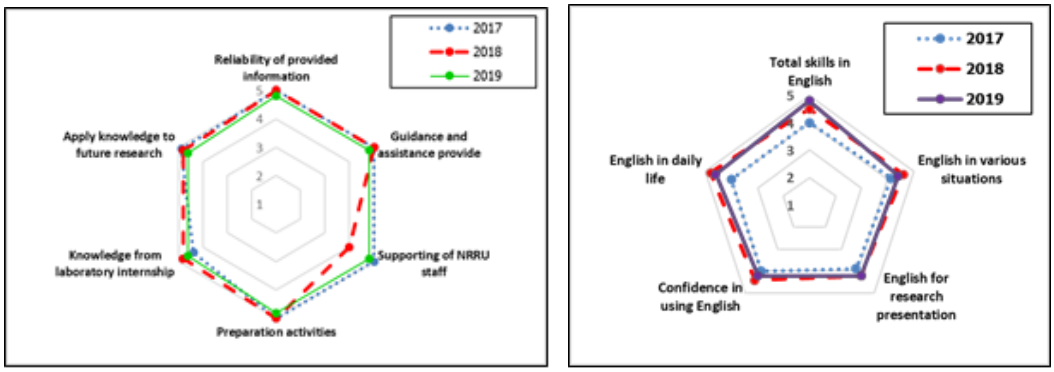
Results

Evaluation is one of the most important keys to improving the program. In the following section, evaluations from the exchange students and the SIT professors who supervised them will be analyzed.

1. Feedback from Participant Students

The exchange programs from 2017 to 2019 used a survey to evaluate the program. The survey consisted of three parts: (1) satisfaction at attending the exchange program, (2) development in English skills, and (3) further comments and suggestions. Students evaluated each item on the survey on a scale of 1–5,

with 1 being the lowest score and 5 being the highest. Figure 5 compares student evaluation results for the 2017, 2018 and 2019 exchange programs in terms of satisfaction with the exchange program and English language development. The third part of the survey contained an open-ended question, and the exchange students responded with several comments and suggestions. For example, some students noted that (i) NRRU should promote the exchange program more directly in each department, (ii) participants should have better preparation in English language skills before joining the program, and (iii) the living expenses of exchange students should be addressed earlier.



(a) project satisfaction (b) English language skills

Figure 5: Comparison of students' evaluation results in the 2017–2019 exchange programs in terms of English language skills and satisfaction with the project.

2. Feedback from Laboratory Professors

SIT professors who supervised the NRRU students evaluated the exchange program in 2018 and 2019. The surveys for the SIT supervisors contained 12 items. The program was evaluated on a scale of 1–5 for each item: 1 = insufficient, 2 = sufficient, 3 = satisfactory, 4 = good, and 5 = outstanding. Figure 6 shows the average scores of the evaluations from SIT. Each survey item had an average score of 4 or more, which shows that the exchange students attained an outstanding level in some aspect. The lowest average score was given for communication skills. This result suggests the need to review English language preparation programs at NRRU and to pay more attention to programs for improving the communication skills of NRRU students. Besides the 12 survey items, open-ended comments from SIT supervisors for each of their exchange students were

obtained. Most of the comments were about the students' ability to learn from laboratory work and sincere congratulations on the successful completion of their exchange program.

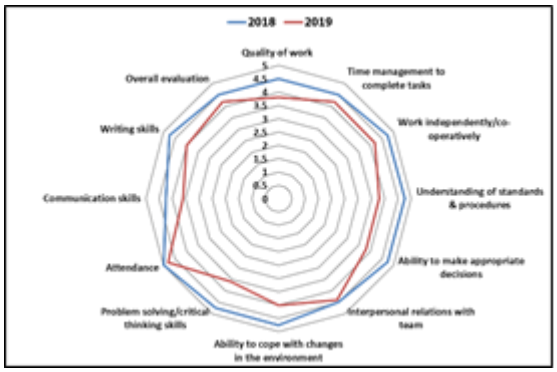


Figure 6: Average evaluation scores of SIT professors for the 2018 and 2019 exchange program.

Discussion

We consider this form the perspective of NRRU as the home university. From the analyzed results, there are strengths, weaknesses, opportunities, and threats as outlined in the following discussion.

1. Strengths

There are strengths in terms of human resources and infrastructures to support language. NRRU has three faculty members who are important intermediaries between NRRU and SIT, one alumni and two current Ph.D. students. They can support every collaboration project both in NRRU and SIT. Feisel & Rosa (2005) noted that the laboratory members need to be able to communicate with specific people regarding laboratory work, and to work effectively as part of a team. Thus, the ability of each Thai student can reveal not only how to do the research but also how to adapt to a new laboratory. Furthermore, the infrastructures in NRRU can give significant support to the collaboration projects, especially with the university in Japan. Specialists in the Department of Japanese language can support students' preparation before they depart to Japan, e.g., in terms of language, attitude, work, lifestyle, and cultural differences. Mori et al. (2010) showed that Japanese students have a greater tendency than Thai students to remain on task in terms of preparation, strategy, effort, and problem-solving.

Thus, Thai lecturers who teach the Japanese language can give correct advice regarding the different culture. Moreover, the management team and IAO staff need to emphasize international collaboration. Indeed, they need to support every project relating to international collaboration. The NRRU Toastmaster club, which is under the control of the IAO staff, can also support students' communication and language skills. Sirmon & Hitt (2009) suggest that companies differ in terms of their flexible managerial capabilities and that is significant treasure in company performance under special circumstances. Therefore, IAO staff and the infrastructures in NRRU can give great support to the exchange/laboratory internship project.

2. Weaknesses

The weaknesses of this project include the internationalization of NRRU, the language skills of science and technology students, and budgetary support. Only 1% of faculty staff in NRRU is from an international background (IAO, NRRU, 2018b). As regards the Thai faculty staff, most of them have graduated from a domestic university. The standard English score requirement for recruiting new faculty staff is an intermediate level. This can create a difficult situation in terms of raising the level of internationalization in NRRU. Furthermore, the English skill level of science and technology students is under the pre-intermediate level. It may take a long period of time to prepare them before joining any exchange programs. Ranked Thailand of Education first Standard English Test (EF SET), a language school conducted by Switzerland, is 64th out of 88 countries. Thailand is classified as having a low proficiency in English with a score of 48.54 out of 100 (Thai English proficiency drops, 2019). Thus, the average evaluation of communication scores of SIT professors is 3.6/5, which is lower than scores in other skills. In addition, the available budget is the main obstacle to joining the international exchange program. Thailand is an agricultural country and most NRRU students come from agricultural or blue-collar families. Therefore, their parents may have a limited budget to support them to participate in any of the exchange programs of the NRRU–SIT Research Exchange/Laboratory Internship Project.

3. Opportunities

There are many opportunities for NRRU in terms of support from SIT, one of the 37 top global universities in Japan. The 10-year continuing budget (2014–2023) is allocated to SIT for global or international projects (MEXT, 2017). For this reason, SIT can provide scholarships for their students or those from partner universities to attend international projects both at home and abroad. Moreover, there are opportunities for students and staff from NRRU to enroll in graduate school for both master and doctoral degrees at SIT due to the close connection with each other. The exchange students can show that they are not afraid to put themselves in a new situation, thus displaying their willingness for diversity. This is very attractive for graduate schools. Furthermore, the advanced sciences and technology research and development collaboration between NRRU and SIT can be started. NRRU's main mission is in terms of local community support. The amount of advanced science and technology research and publications are still limited. Therefore, collaboration with SIT can lead to an increase in advanced science and technology research and publications by NRRU.

4. Threats

Threats regarding this project concern the decreasing number of students, especially in the field of science and technology, and competition with other domestic and overseas universities. Currently, Thai universities are in crisis as student enrollments have declined, leading to a decrease in the number of students in sciences and technology. Figure 6 shows the number of people aged 19–22 from 2018 to 2021. Based on the statistical data, the population is in a dramatic decline (Official Statistics Registration Systems, 2018). It will be more of a challenge for NRRU to find exchange students in the field of science and technology due to this situation. Furthermore, both domestic and overseas universities are exploring international collaboration opportunities with SIT. The exchange scholarship may be allocated to those students who have a high level of qualifications. NRRU should intensively develop skills that link international activities and students, especially in the fields of science and technology. The curriculum of NRRU is managed by a committee of the Office of the Higher Education Commission. It allows students in NRRU to manage their time to join exchange programs in the NRRU–SIT Research Internship Project. Most NRRU

students were happy to join these programs before doing their final research work. NRRU focuses on project-based learning as students' final research work before graduating. Therefore, NRRU students had the following average evaluation scores from SIT professors: problem-solving/critical thinking skills, 3.6; ability to make appropriate decisions, 3.8; understanding of standards and procedures, 3.8; and quality of work, 3.8, all of which are less than 4.0. These low scores are a result of the lack of carrying out projects.

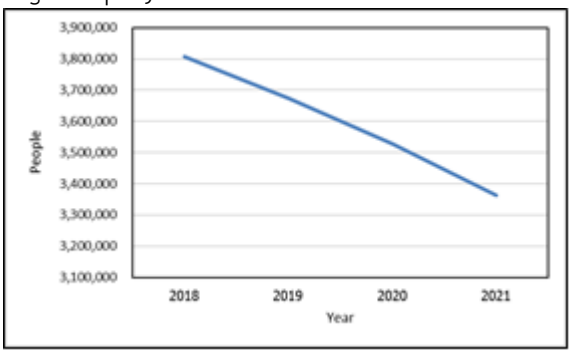


Figure 6: Number of people aged 19–22 from 2018 to 2021

Body of knowledge

This paper describes the activities of the Research Exchange/Laboratory Internship Project in which NRRU and SIT have collaborated as the home and host universities, respectively. The principles of the exchange project and the supporting activities of the NRRU before, during, and after the exchange program have been described. Students who participated in the program gained not only skills in research and English language, but also cross-cultural experiences abroad. Although the research outcomes have not yet been sufficiently illustrated in terms of publications, the collaboration between NRRU and SIT has been shown to be significantly beneficial to the participants. The assessment of the program by professors and students has supplied valuable information to further improve the activities of the team in the future.

We plan to analyze the exchange project with a SWOT matrix, which may raise numerous issues to help develop a new exchange program and other international activities. We also plan to conduct a study on exchange activities abroad by adding key performance indicators such as the number of participants and research and publication outcomes. We would like to eventually extend the

program to graduate students at NRRU and to intensively promote other activities in collaboration with SIT, Japan.

Acknowledgments

We thank the International Initiative Section of the Shibaura Institute of Technology (SIT) and the IAO of Nakhon Ratchasima Rajabhat University (NRRU) for their useful advice and support throughout the exchange programs and this study. We are also immensely grateful to the Office of Global Engineering Engagement at the Suranaree University of Technology for their assistance and collaboration.

References

Bangkok Post. (2019). *Thai English proficiency drops.* Retrieved March 20, 2020, from https://www.bangkokpost.com/thailand/general/1570042/thaienglish-proficiency-drops

Cambridge. (2015). *Assessment Cambridge English ESOF Skill for Life*. Retrieved March 20, 2020, from http://www. cambridgeenglish.org/Images/182483-cambridge-english-esol-skills-for-life-2015-handbook.pdf

Clarke, V. (2004). Students' global awareness and attitudes to internationalism in a world of cultural convergence. *Journal of Research in International Education,* 3(1), 51-70.

Davis, M. C., et. Al. (2016). Virtual interactive presence in global surgical education: international collaboration through augmented reality. *World neurosurgery*, 86, 103-111.

Faculty of Industrial Technology, NRRU (2018). *Announcement for Exchange Program at SIT, Japan*. Retrieved March 20, 2020, from http://fit.nrru.ac.th/index.php/2014-02-05-13-59-36/newpr/619-2018-2019

Feisel, L. D., & Rosa, A. J. (2015). The role of the laboratory in undergraduate engineering education. *Journal of Engineering Education*, 94(1), 121-130.

Helms, M. R. (2015). *International Higher Education Partnerships: A Global Review of Standards and Practices, American Council on Education*. Retrieved March 20, 2020, from http://www.acenet.edu/news-room/Documents/CIGE-Insights-Intl-Higher-Ed-Partnerships.pdf

International Affairs Office (IAO), NRRU. (2017). IAO- NRRU Newsletter, January 2017.

_____. (2018a). *Announcement for Exchange Program at SIT, Japan*. Retrieved March 20, 2020, from http://ianrru.org/main/?p=1100

_____. (2018b). *Final presentation session of exchange students from Exchange Program at SIT, Japan*. Retrieved March 20, 2020, from http://ianrru.org/main/?p=1057

_____. (2018c). *NRRU Students attend Exchange Program at SIT, Japan.* Retrieved March 20, 2020, from http://ianrru.org/main/?p=863

_____. (2018d). *Orientation Meeting before starting exchange program at SIT, Japan.* Retrieved March 20, 2020, from http://ianrru.org/ main/?p=823

_____. (2018e). *Promoting session for Exchange Program at SIT, Japan.* Retrieved March 20, 2020, from http://ianrru.org/main/?p=656

_____. (2019). Number of foreign teachers Retrieved March 20, 2020, from https://drive.g.,oogle.com/file/d/1RYYlL2AEq0kzGOP3xmlAMT0tTgySqFz4/view

MEXT (Ministry of Education, Culture, Sports, Science and Technology-Japan). (2017). *Top Global University Project*. Retrieved March 20, 2020, from https://tgu. mext.go.jp

Mori, S., et. al. (2010). Attributions for performance: A comparative study of Japanese and Thai university students. *JALT journal*, 32(1), 5-28.

National Statistical Office. (2019). *Official Statistics Registration Systems*. Retrieved March 20, 2020, from http://stat.dopa.go.th/stat/statnew/upstat_age_disp.php

NRRU Toastmaster Club. (2018). *NRRU Toastmaster Club Meeting*. Retrieved March 20, 2020, from https://www.facebook.com/ NRRUToastmastersClub/

Oda, S., et. al. (2016). Program design on global project-based learning for multicultural and multidisciplinary engineering students in collaboration with local community. *The 10th South East Asia Technological University Consortium Symposium (SEATUC)*, 22–24 February 2016.

Shibaura Institute of Technology (SIT), (2017). *Guideline for Research Exchange /Laboratory Internship Program AY2018/2019*. Retrieved March 20, 2020, from http://www.shibaura-it.ac.jp/en/index.html

Sirmon, D. G., & Hitt, M. A. (2009). Contingencies within dynamic managerial capabilities: Interdependent effects of resource investment and deployment on firm performance. *Strategic Management Journal*. 30(13), 1375-1394.

Sun, Y. (2008). The Toastmasters Approach: An Innovative Way to Teach Public Speaking to EFL Learners in Taiwan. *RELC Journal*, 39(1), 113-130.

Velta, C. (2004). Students' Global Awareness and Attitudes to Internationalism in a World of Cultural Convergence. *Journal of Research in International Education*, 3(1), 51–70.