Preliminary Analysis of the Evaluations of International Workshops on Sustainable Cities Held Jointly by The University of Danang and Utsunomiya University -Feedback via questionnaire on DUT and UU workshops held from 2018 to 2021-

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1. Introduction

There are many previous studies on international exchange programs^{1), 2), 3)}, but most of them focus on programs that have been held by schools or departments of international studies or international communications, and cover a period from oneto two years.

In this paper, the authors study a series of four workshops (WS) held jointly by The University of Danang - University of Science and Technology (DUT) in Vietnam and Utsunomiya University (UU) in Japan from 2018 to 2021. The approach of the study is unique, because the participants have been followed up over a period of four years since the first workshop. The workshops themselves were also unique in that they placed weight not only on international communication but also on their academic aspect as an outcome of the workshops.

The first workshop kicked off in 2018 after an agreement was signed by DUT and UU in 2017 aiming for an academic and friendship exchange

between the two universities. Four workshops have been held thereafter, every year.

This paper is the first attempt of its kind to evaluate a workshop via an evaluation survey. We aimed to analyze the general evaluation of the series of workshops by students and faculty members, so we could apply the results to future workshops and make them more meaningful and relevant to participants.

2. History of the Workshops

The first workshop was held in Danang in March 2018 with the participation of 11 students and faculty members from UU and 15 students and faculty members from DUT. The theme of the workshop was "Idea for River-oriented Transportation and Architecture for Future Danang City". After carrying out an interdisciplinary survey, the students discussed "new ecology" among nature, urbanism and architecture for human activities in future Danang city.

The second workshop was held again in Danang

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in March 2019 with the participation of 11 students and faculty members from UU and 38 students and faculty members from DUT. The theme of the workshop was "Architecture Design of Metro Station Transportation Design of Surrounding Area in Danang City". In the workshop, a "new ecology" among nature, urbanism, architecture for the human activities in future Danang city was discussed after carrying out interdisciplinary surveys.

The third workshop was held in Utsunomiya for the first time in February 2020 with the participation of 20 students and faculty members from UU and 14 students and faculty members from DUT. The theme of the workshop was "Urban Design of Smart City Utsunomiya ~ The LRT Station and Its Environs~". In the program, multiple issues including nature, urbanism, architecture for the human activities in future Utsunomiya city was analyzed upon carrying out interdisciplinary surveys.

The fourth workshop was held online for the first time due to COVID-19. The participants included 15 students and faculty members from UU, and 26 students and faculty members from DUT. The theme was "Ideas of urban design in post covid-19 period ~Cases of Utsunomiya city & Danang city~". This topic was a timely and common theme for interdisciplinary fields of studies in civil engineering, architecture and community design.

The fifth workshop is scheduled from February to March 2022 for two weeks.

Details of the first three workshops have been published online and in print⁴⁾, but no detailed evaluation had yet been conducted. Thus, we attempted to examine students' feedback of the workshops.

Outline of the Questionnaire

The workshops were evaluated via a questionnaire

survey conducted in 2021 for the first time for the series of workshops. An outline of the questionnaire is shown in Table 1, taking into consideration previous studies⁵⁾.

The questionnaire was planned mainly by UU faculty members, and Google Form was used to collect data anonymously. This survey was conducted based on UU's ethical guidelines on human surveys, and was approved by UU.

The survey was originally planned to be conducted from May 1 to 31, 2021, in English. While the rate of responses from DUT participants was good, the rate of responses from UU participants was not as good as expected. We made an assumption that UU students, especially Japanese students hesitated to respond to the questionnaire as it is in English. Therefore, we prepared a Japanese version of the

Table 1. Outline of Questionnaire

| Evaluation of DUT and UU workshops | | |
|------------------------------------|---|--|
| Category | Questions | |
| | Age, university, grade | |
| | Year of attendance | |
| A. Attributes | Student/faculty | |
| | Nationality | |
| | Current status | |
| | Gender | |
| | Purpose of WS | |
| | Personal goal of attending WS | |
| B. Direct | Communication in WS | |
| effects | Condition of WS | |
| | Planning of WS | |
| | Ideal method of holding WS | |
| C. Direct | Friendship (international and domestic) | |
| advantages | Communication (English) | |
| auvaillages | Knowledge (academic, technical, etc.) | |
| | Co-research etc. | |
| D. Outcome | Means of contact | |
| D. Outcome | QOL | |
| | Continuing WS | |
| | Visits to other countries | |
| E. Career | Positive effect after WS | |
| | QOL after WS | |
| | Best WS in last 4 years | |
| | Reasons | |
| F. Comments | Free comments about WS | |

| | DUT | DUT | UU | UU |
|-------|--------|--------|--------|--------|
| | (Stu.) | (Fac.) | (Stu.) | (Fac.) |
| 2018 | 4 | 6 | 6 | 1 |
| 2019 | 7 | 8 | 9 | 0 |
| 2020 | 12 | 8 | 8 | 1 |
| 2021 | 13 | 5 | 10 | 1 |
| Total | 36 | 27 | 33 | 3 |
| | | | " " . | |

Table 2. Breakdown of Respondents by Year

* "Stu." is an abbreviation for student, "Fac." for faculty.

Table 3. Breakdown of Respondents

| | DUT | DUT | UU | UU |
|----------|--------|--------|--------|--------|
| | (Stu.) | (Fac.) | (Stu.) | (Fac.) |
| All | 26 | 9 | 24 | 1 |
| Subtotal | 35 | | 25 | |
| Total | | 6 | 0 | |

*Some students and staff members participated both as UU and DUT participants on separate occasions. Some students became faculty members in a later workshop.

questionnaire. Subsequently, we were able to collect enough data as shown in Tables 2 and 3.

We expected to collect enough responses to conduct a quantitative study. However, this was not to be. As shown in Table 2., as the time span gets longer from the event, we can expect small number of responses. With respect to students' responses, we were able to collect responses from only 26 DUT students and 24 UU students, whereas a cumulative total of 36 students had actually participated from DUT and 33 students from UU. The cumulative number of students who participated in the workshops totaled 144, including 93 from DUT and 51 from UU. With a total participation of this size, we need more than 100 responses to obtain a statistically significant result.

The same applies to faculty members. We collected responses from only 9 DUT faculty members and 1 UU faculty member.

Consequently, we are unfortunately only able to make a preliminary assessment using the collected data. Nevertheless, the data can be used to assess whether the four workshops have been successful, so this shall be the focus of this research.

| | DUT Stu. | | UU Stu. | |
|------------|----------|----|---------|----|
| | М | F | М | F |
| 2018 | 3 | 1 | 4 | 2 |
| 2019 | 6 | 1 | 5 | 4 |
| 2020 | 8 | 4 | 4 | 4 |
| 2021 | 9 | 4 | 5 | 5 |
| Subtotal | 26 | 10 | 18 | 15 |
| Total | 36 | | 33 | |
| Actual | 19 | 7 | 16 | 8 |
| Act. total | 26 | | 24 | |

*As some students attended more than once, the total is not equal to the actual total. This applies to all other data

4. Analysis of the Questionnaire

4.1. Basic Information

The questionnaire was basically analyzed by aggregate calculation and cross table, as this sufficed to assess the level of satisfaction, strengths and weaknesses of the workshops.

We used the responses from students only, as the data from faculty members was quite limited, and we analyzed the primary purpose of the workshop, whether it was to acquire academic skills, improve knowledge, or to develop friendships.

Table 4 shows the basic information about the respondents, including the year in which they attended the workshops and their gender, and the cumulative and actual numbers of respondents.

4.2. Overall Outcome

The overall outcome of the workshops was positive among the respondents. As can be seen in Figure 1, all responses by DUT students exceeded a score of 4.0 out of a maximum of 5.0 regarding all evaluation items. Therefore, it can be said that the overall outcome of the workshops was evaluated as good by DUT students.

The same set of responses by UU students ranged from 3.3 to 4.4. Since five items out of seven exceeded 4.0, it can be said that the overall evaluation by UU students was relatively good, although not as high as DUT students.

In sum, the overall evaluation of the workshops was positive among both DUT and UU students. This might be due to the differences in the purpose of participation as shown in Figure 2. Yet, a detailed analysis also needs to be conducted on the large differences in scores between DUT students and UU students in Figure 1, and particularly the scores for 1.3. Academic knowledge (0.95), and 1.4. Technical skill (0.8).

4.3. Wide Disparity between DUT and UU

The results show a clear tendency among the participants. DUT students tend to show a higher

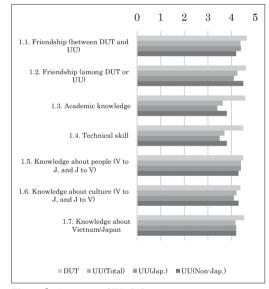


Figure 1. Outcome of Workshops

(Based on a subjective scale from 1 (minimum) to 5 (maximum))

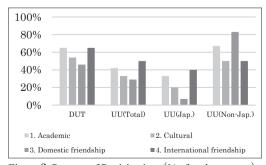


Figure 2. Purpose of Participation (% of each category) *Non-Jap.=Non-Japanese

level of satisfaction than UU students, as seen in Figure 1. As there were 15 Japanese students and 6 non-Japanese students among the respondents, the wide disparity in satisfaction level might be attributed to the nationalities of the respondents. According to the World Happiness Report⁶⁾, Japan, Vietnam, and China are ranked 56th, 79th, 84th, respectively However, the responses from Vietnamese students were higher than the other two groups of students (Japanese and Chinese).

We therefore analyzed the disparity in satisfaction level between Japanese and non-Japanese students (already added to the figures). As a result, there was not a large disparity between Japanese and non-Japanese students, as can be seen in Figure 1. It is difficult to tell only from the result of this questionnaire, so this shall be an issue for future studies.

When comparing the purposes of participation as shown in Figure 2, however, we can see a clear difference between Japanese and non-Japanese students. While Japanese students had relatively low expectations of the workshops, DUT and UU non-Japanese students expected more. The low expectation might be the reason for the disparity between DUT students and UU students, as expectations for all items were much lower for Japanese students. While we can assume that this is due to the differences in purpose as shown in Figure 2, this shall also be an issue for future research.

4.4. Friendship Program

It is interesting to note that as the purpose of participation, enhancement of domestic friendships was the lowest, and enhancement of international friendships was the highest for both DUT and UU students. However, as shown in Figure 1, the responses by DUT students were 4.65 for international friendship and 4.16 for domestic friendship, and the responses by UU students were 4.38 for international friendship and 4.25 for domestic friendship. This shows that students had expectations of enhancing both international and domestic friendship exchanges as an added benefit of the workshops. In sum, the workshops were successful in enhancing international and domestic friendships (two of the main purposes of the workshops).

4.5. Practical Results (English)

Regarding the practical outcome of the workshops, we checked English skills and overall knowledge as shown in Figure 3. Here again, DUT students showed higher scores than UU students in all items. Regarding English, the results indicate that the workshops were effective for both DUT and UU students, especially in improving their speaking and listening abilities, as shown by scores of 4.23 and 4.23 among DUT students and 4.04 and 3.92 among UU students. The workshops were generally effective in improving English skills. This is similar to previous studies about willingness to communicate in a second language⁷⁾.

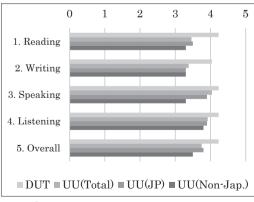
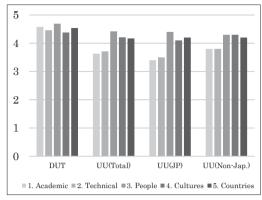


Figure 3. English Skills

(Based on a subjective scale from 1 (minimum) to 5 (maximum))





(Based on a subjective scale from 1 (minimum) to 5 (maximum))

4.6. Practical Results (Academic)

On the other hand, in Figure 4 on Overall knowledge, the scores of DUT students were higher than UU students, especially with regard to academic and technical knowledge. This is similar to the results shown in Figure 1.

It is difficult to explain the differences between academic and technical aspects and friendship solely from this data, as noted in the previous section. However, as the scores of DUT students were a high 4.58 and 4.46, and the scores of UU students were close to 4.0, we can conclude that the workshops were successful in their academic aspects as well.

4.7. Practical Results (Others)

In Figure 4, the scores for knowledge about people, cultures and countries were basically the same between DUT and UU students. This result is similar to the result of the Friendship aspect discussed in section 5.4. The scores for people, culture, and countries in Figure 4 all exceed 4.0 among both DUT and UU students, so it could be said that the workshops were successful in terms of Overall knowledge.

4.8. Administration of the Workshops

Regarding the planning of the workshops as shown in Figure 5, the scores of DUT students exceed 4.0,

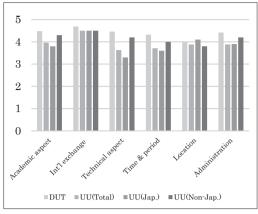


Figure 5. Planning of Workshops (Based on a subjective scale from 1 (minimum) to 5 (maximum))

but the scores of UU students range from 3.63 to 4.5. Although the scores show some differences, they are generally around 4.0. The lowest score was for location among DUT students and for technical aspects among UU students. The highest score among both DUT students and UU students was for international exchange, with the same score of 4.5.

Regarding administration aspects, scores for time & period, location, and administration were all around 4.0. Therefore, we can conclude that the workshops have been administered satisfactorily.

4.9. Location of the Workshops

The first two workshops were held in Danang. The third was held in Utsunomiya, and the fourth and last workshop was held online.

We checked the most preferred venue and method of holding the workshop. Figure 6 shows the results for preferred venue, and Figure 7 shows the preferred method of holding the workshop. With respect to DUT students, they appear to be eager to visit Japan, as shown by the score of 4.9 in Figure 6, and prefer physical visits, as shown in Figure 7. This result was basically the same for UU students, who prefer visiting Vietnam, as shown by the largest numbers in Figure 6 and 7. However, some UU

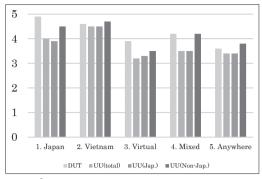


Figure 6. Physical Visits/Online WS (Based on a subjective scale of 1 (minimum) to 5 (maximum))

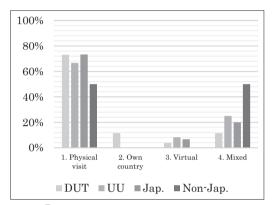


Figure 7. Preferred Method of Holding the Workshop (% of each category)

students answered Virtual or Mixed as the preferred method, comprising 25% of all respondents.

We may consider holding future workshops in a hybrid manner, so students have a choice of where and how to attend.

4.10. Comments

Lastly, we examined some of the qualitative responses and voices of students who attended the workshops. Most comments were positive. We also received comments from students and faculty members that this workshop is worth continuing. Thus, we can say that we are supported in our efforts to continue the workshop.

5. Conclusion and Issues to be Solved

This paper is a preliminary survey. We need

Table 5. Comments from Previous Students

| 13.1 | . Comments from DUT students |
|------|---|
| 1) | "The workshops are really valuable. It is a |
| | pleasure to interact and work with foreign |
| | friends." |

- 2) "I have learned a lot about new knowledge, improved group and communication skills, many new friends, etc."
- 3) "It has helped me change my mind, have interesting experiences that I have never had before (make friends with Japanese students, teachers. Visiting Japan) and I am very grateful for that."
- 4) "I felt the enthusiasm and care only for their work, they are also very helpful, instructing us on how to work as a team and how to handle situations, behave and answer questions."
- 5) "I hope to have more workshops like this."
- 6) "I am very fascinated to come back Japan one day, may be for an intern or a degree."
- 7) "The workshops are very thoughtfully organized"

13.2. Comments from UU students

- 1) "By participating in real (at school), I can make friends, hang out with friends outside of the workshop, we can also contact each other after the workshop finished."
- 2) "I thought it was worth."
- 3) "I was impressed by the capacity of DUT students in terms of ideas and techniques, and English."
- 4) "I thought it would be difficult to communicate before the workshop. Yet, when we started to communicate, we were able to understand each other"
- 5) "I went to Vietnam unwillingly. However, at last, I found it lovely experience."
- 6) "Even as a virtual event, we can communicate within UU students."

responses from more participants to make this research accountable. From the 2022 workshop, we plan to ask all participants to respond to an amended questionnaire so we may conduct a statistically significant survey.

Nevertheless, at least, the results of the

questionnaire so far show a positive trend in the responses from students and faculty members. They appreciate and feel content with what the workshops have provided them.

The purposes of these workshops are to enhance academic knowledge and skills and to promote friendship between DUT and UU. In terms of academic aspects, we received different views from DUT students and UU students, so this issue will also be addressed in the future. In terms of the friendship aspect, both DUT and UU students gave high scores for international and domestic friendships. Thus, as the outcome of the workshops, students showed a higher level of satisfaction in the friendship aspect than in the academic aspects.

Furthermore, DUT students, UU students, and faculty members all recommended the workshop program to be continued.

Prior to this study, the one thing that the workshop lacked was evaluation. We attempted to prove the positive effectiveness of the workshop in statistical terms, but this was not possible due to the lack of samples. From the data we collected through the questionnaire survey, we were able to visualize the feedback from the students who participated in the workshops showing that they were generally satisfied with the workshop series.

There are still issues be solved. For instance, both DUT and UU students showed relatively lower scores for the academic and technical aspects. Additionally, DUT students tended to show higher scores than UU students. We need to put more effort into addressing these differences to make future workshops more effective via in-depth discussion between DUT and UU faculty members at the planning stage, based on the views of potential participants.

As we will be holding the workshop again in 2022, we hope to collect sufficient samples/responses

to prove the positive effect of this workshop. We may also need to collect data from other groups to compare the responses of participants and nonparticipants.

Abstract

This paper aims to summarize and evaluate the outcome of the series of workshops held jointly by The University of Danang -University of Science and Technology (DUT) in Danang, Vietnam and Utsunomiya University in Utsunomiya, Japan. The workshops began in 2018 and have been held four times up to 2021. In contrast to many previous studies which present evaluations of workshops covering a period of one to two years at the most, this paper takes a unique approach and assesses the outcome of a series of workshops held over a period of four years, including evaluations from previous participants from each university.

The overall evaluation was positive, with high scores given by participants both with regard to academic achievement and particularly friendship promotion. However, it was not possible to collect enough responses to statistically prove the positive effectiveness of the workshop. As the workshop will be continued next year, we will strive to make improvements by incorporating the feedback obtained through this study.

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