#### 修士論文概要

Analysis of the Collaboration Process in the International Collaborative Projects from the Viewpoint of Education for Sustainable Development

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# 1. The purpose and the methodology of this study

Currently, there are two International Collaborative Projects (ICPs) which are called Asian Students Exchange Program (ASEP) and World Youth Meeting (WYM) are the practices of Education for Sustainable Development (ESD). These two projects have been taking place in the Asia region for more than two decades for mainly high school and university students in Asia such as Taiwan, Japan, Korea and so on, and those participants have to work together to make English presentations by themselves. Moreover, to accomplish their presentation, designing and conducting the action plans are needed. The author has been joining these two ICPs as a facilitator and a coordinator since 2020 at a university in Taiwan which is also the participant school of ASEP and WYM.

However, ASEP and WYM have been challenging because coordinators and facilitators for each school always change every year so that they seldom have opportunities to share the experience of WYM and ASEP. Therefore, this study aims to clarify the collaboration activities and learning in the ICP, specifically dealing WYM and ASEP as examples, from the perspective of ESD and to reveal whether the participants utilize and acquire "abilities and attitudes emphasized by ESD" (NIER, 2012; Kadoya & Goto, 2013) through the tasks and activities they engage in.

To achieve those purposes, both quantitative and qualitative research, such as questionnaire, fieldwork and interview, were conducted to 25 universities' participants through online meeting applications such as Zoom, Google Meets and Microsoft Teams. For the questionnaires, the questionnaire of online ASEP 2020, ASEP 2021, WYM 2021 were given to solicit learners' feedback on the post projects in one month through Google Form. The target participants for this questionnaire consisted of 43 learners who joined the online ASEP 2020; 67 learners of ASEP 2021; 97 learners of WYM 2021. 207 participants in total were given 10 minutes to fill in the survey anonymously. For the fieldwork, the author conducted the participant observation as an "observer-as-participant" (Sato, 2015) through fieldwork. 25 university participants (9 Japanese, 1 Indonesian, 1 Honduran, 1Sri Lankan, 13 Taiwanese) of online ASEP 2020, ASEP 2021 and WYM 2021 were selected to be the targets of observation because the author was able to join all of their meetings as an observer-as-participant and facilitator to take the effective and qualitative records. All the meetings were conducted and recorded by the target of ASEP and WYM participants. The observation for each project has been carried out for one month through online meeting

applications since the meetings platforms were mainly those. Also, the data collection was sorted out into the fieldnotes by following the format of Lee (2014, p.172) with the reference of O' Hearn-Curran (1997). For the interview, One-on-one oral and semi-structured interviews were conducted at the post project through Zoom and lasted for approximately 40 minutes for each interviewee. Ten participants (1 Japanese, 1 Indonesian, 1 Honduran, 7 Taiwanese) of online ASEP 2020, ASEP 2021 and WYM 2021 were selected because the author observed them from the beginning of the preparatory stage (stage 1). This is because there are more fieldnotes for them so more detailed questions can be asked during the interviews. In addition, the probing questions were asked based on the fieldnotes. Answers were recorded by note-taking, and all the interviews were also recorded with consent. The results of interview will be transcribed and analyzed through the KJ method.

# 2. The outline of this study

# CHAPTER 1 INTRODUCTION CHAPTER 2 RELATED STUDIES

- 2.1 INTERNATIONAL COLLABORATIVE PROJECTS
  - 2.1.1 The definition of International Collaborative Projects
  - 2.1.2 The goals and pedagogical method of WYM and ASEP
  - 2.1.3 Project-Based Learning in ICP
  - 2.1.4 Related paper of students' outcomes in WYM and ASEP
- 2.2 EDUCATION FOR SUSTAINABLE DEVELOPMENT
  - 2.2.1 The definition of Education for Sustainable Development
  - 2.2.2 The relation between ASEP and WYM, and ESD
  - 2.2.3 Abilities and attitudes emphasized by ESD as an analysis principle
- 2.3 THE PURPOSE OF THIS STUDY BASED ON RELATED STUDIES

# **CHAPTER 3 RESEARCH METHOD**

- 3.1 QUESTIONNAIRE
- 3.2 FIELDWORK
  - 3.2.1 Participant observation through fieldwork
  - 3.2.2 Fieldnotes
- 3 3 INTERVIEWING

# **CHAPTER 4 RESULTS**

- 4.1 THE GENERAL TENDENCIES OF QUESTIONNAIRE RESULTS
- 4.2 COLLABORATION ACTIVITIES OBSERVED IN THE FIELDNOTES
  - 4.2.1 Successful examples in the collaboration process
  - 4.2.2 Unsuccessful examples in the collaboration process
- 4.3THE ANALYSIS OF INTERVIEW RESULTS

#### **CHAPTER 5 DISCUSSION**

- 5.1 PARTICIPANTS' DIFFICULTIES IN THE PREPARATORY STAGE
- 5.2 PARTICIPANTS' SOLUTIONS ANALYZED WITH ABILITIES AND ATTITUDES IN THE DIFFICULTIES
- 5.3 PARTICIPANTS' LEARNING OUTCOMES

#### CHAPTER 6 CONCLUSION

- 6.1 CONCLUSION
- **6.2 FUTURE CHALLENGES**

#### REFERENCES

### 3. The outline of each chapter

This study was composed of six chapters, the summary of each chapter will be introduced as follows. In the first chapter, two problems were identified, 1) the author found that the facilitation during the collaboration process is not systematically suggested so that facilitators always do "ad hoc" facilitation as a facilitator, 2) as a coordinator, the coordinators for each school change every year, so the opportunity for experience sharing is rarely seen so that what participants are actually doing in the collaboration process seems like to be in a black box in the ICPs. In addition to this, in ESD, learners' expected abilities and attitudes to be utilized are mentioned, which are "abilities and attitudes emphasized by ESD" (NIER, 2012; Kadoya & Goto, 2013). Therefore, in this study, the learners' collaboration process will be observed and analyzed through questionnaires, field work and interviews referring to "abilities and attitudes emphasized by ESD".

In chapter 2, there were three sections including seven subsections. For the first section, it discussed the introduction of International Collaborative Projects (2.1), the definition of ICPs (section 2.1.1), the goal and pedagogical method of WYM and ASEP (section 2.1.2), project-based learning (PBL) in ICPs (section 2.1.3), related paper with students' outcomes. For the second section, it starts with introducing the historical background of Education for Sustainable Development (ESD) with a year timeline and shows the paradigm shift from Environmental Education (EE) to Education for Sustainable Development (ESD). And then, it continued discussing the definition of ESD (section 2.2.1), the relation between WYM and ASEP, and ESD (section 2.2.2), the abilities and attitudes for ESD and Key Competency (NIER, 2012) (section 2.2.3). In the last section, it was stated that a more systematic and theoretical analysis is required for ESD through ICP with regards to the paper review of WYM and ASEP, and ESD for the purpose of this study.

In chapter 3, it provided an outline of research methods to reveal the answers for the three research questions mentioned below. Both quantitative and qualitative research methods which were questionnaire (section 3.1) and Fieldwork (section 3.2) such as participation observation (section 3.2.1) and fieldnotes (section 3.2.2), and interview (section 3.3) were conducted to participants after they took part in online ICPs which were ASEP 2020, ASEP 2021, WYM 2021. Also, three research questions were made as follows.

**Research question 1**: What kind of difficulties do participants have during the preparatory stage (stage 1)?

**Research question 2**: When they encounter the difficulties, what abilities and attitudes do participants utilize?

**Research question 3**: What abilities and attitudes have participants acquired after attending WYM and ASEP?

In chapter 4, it started with showing the result of the questionnaire survey (section 4.1), and the fieldnotes (section 4.2) and the interview result through the KJ method (section 4.3). For section 4.2, there are two subsections including the analysis result of fieldnotes with successful examples (section 4.2.1) and unsuccessful examples (section 4.2.2). Based on

these fieldnotes results, the successful examples can be suggested to the facilitators to have better understanding of the situations to foster participants' "Abilities and attitudes emphasized by ESD"; and the unsuccessful examples can be suggested to the facilitators and participants to predict the possible difficulties and to think about a better way to solve the problems and prepare for the difficulties beforehand.

In chapter 5, it started with the discussion of the difficulties (section 5.1) referring to RQ1, participants' solutions analyzed with abilities and attitudes needed in the difficulties (section 5.2) referring to RQ2, participants' learning outcomes (section 5.3) referring to RQ3. Moreover, the discussion will be focused on the questionnaire results first, and to prove the results of the questionnaire, both the fieldnotes and the interview results are also used to develop discussion. This is because from the questionnaire results, only the general tendencies of participants' difficulties, solutions and learning outcomes will be found since questionnaire surveys are quantitative data.

In chapter 6, it concluded the clarification of the collaboration activities and learning in the ICPs from the perspective of ESD and to reveal whether the participants utilize and acquire those abilities and attitudes through the tasks and activities they engage in. Based on both quantitative and qualitative research, such as questionnaire, fieldwork and interview, it was revealed that there are seventeen collaboration activities in the preparatory stage in WYM and ASEP. Also, five difficulties which participants encountered were found. The results also indicate that participants of the international collaborative projects developed not only "Abilities and attitudes emphasized by ESD" but also other five abilities and attitudes (section 6.1). In addition, there were some limitations (section 6.2) of this study such as there were few numbers of the observation groups, different results toward difficulties, solutions and learning outcomes and so on. However, this study was intended to clarify the detailed collaboration process and the learning outcomes in online ICPs with micro view by taking qualitative research so that the findings of this research will have a clear view of the collaboration process, and ultimately it would help facilitators /participants to prepare for the expected difficulties. For the next possible study, it could investigate the connection between the teachers/facilitators and facilitation process to contribute development of the quality of ICPs.