



Chapter 10

An International Collaborative Research Experience between Addis Ababa University, Ethiopia and Hiroshima University, Japan

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10.1 Introduction

The book begins with the first four chapters providing an overview of the higher education systems and societal contexts of Japan and South Africa, aiming to pinpoint potential areas for collaboration between universities from both countries. Chapter 5 examines a partnership program between Japan and Zambia, serving as an illustrative example for South Africa. In Chapter 6, a case study explores Japanese universities' engagements in Africa, offering valuable insights for potential partnerships between South African and Japanese institutions. Chapter 7 complements Chapter 6 by presenting the firsthand experience of a Malawian student involved in the collaborative initiative discussed therein. Chapter 8 introduces yet another case study, this time focusing on webinars for professional development for teacher educators, linking the University of Malawi and the University of Zambia with universities in Southeast Asian countries. Chapter 9 broadens the scope, discussing the potential of a platform for international collaborative research, with a focus on Japan and South Africa. This chapter also includes a case study on research collaboration between Hiroshima University in Japan and Addis Ababa University in Ethiopia.

Collaboration among researchers spans different localities and even different countries. We believe that collaboration in research is important and, therefore, should be encouraged (Katz & Martin 1997). Collaboration contributes to high-quality research as ideas are shared, feedback is received from others and new skills are learned (Kraut, Galegher & Egidio 1987). Also, collaboration contributes to research progress in desirable ways, such as sharing ideas and obtaining unique data.

It is important to note that there are different levels of research collaboration (e.g., individual, university, industry and government). Moreover, while research collaboration has been conducted domestically or internationally over the years, international collaboration in research is unique.

This chapter describes the case of international research collaboration between a researcher at Hiroshima University, Japan, and researchers at Addis Ababa University, Ethiopia, at the individual level. First, the reasons why collaboration on research is necessary are summarised. Second, the type of research collaboration is described. Finally, the advantages of collaboration in research are discussed.

10.2. Why Do We Need to Collaborate in Research?

10.2.1 Previous Studies

Researchers collaborate for a variety of reasons. Kraut et al. (1987) developed a model for research collaboration through interviews with 50 researchers. The model considered three stages in progress (i.e., initiation, execution and public presentation) and two levels (i.e., relationship and task). In the initiation stage, researchers establish relationships and share their interests. In the execution stage, researchers carry out research tasks. In the public presentation stage, researchers summarise their research in a document. It generally takes approximately two years from the initiation stage to the public presentation stage. Some additional reasons for research collaboration include:

1. sharing resources such as research grants and knowledge skills;
2. improving the quality of the research product through sharing ideas and receiving feedback and
3. learning new skills.

Utilising a questionnaire, Melin (2000) found that the major reasons for research collaboration include: sharing special competence, sharing unique data or equipment and developing and testing new methods. He also found the main benefits of collaboration to be increased knowledge, higher scientific quality, contacts or connections for future work and generating new ideas. Maglaughlin and Sonnenwald (2005) identified 20 factors and categorised them into four factors: personal, resources, motivation and common ground. Personal factors are related to individual interests, skills, and feelings. Resource factors include support regarding funding, literature and time. Motivation factors are related to learning and teaching, novel discoveries and fun. Common-ground factors include cognitive factors, political common ground, physical nearness and disciplinary biases.

Some researchers have promoted an understanding of research collaboration by reviewing previous studies. Bukvova (2010) listed the potential of research collaboration: access to expertise, access to resources, exchange of ideas (especially across disciplines), pooling expertise for complex problems, keeping one's own activities focused, learning new skills, higher productivity, higher quality of results, access to funding, prestige, political and personal factors, funding and pleasure. Moreover, Bukova categorised research collaboration factors into two aspects: internal and external. Internal influence factors include issues of quality, issues of credit, coordination, preparation, communication, awareness, dealing with differences, the familiarity of team members, leadership, personal characteristics, boundary setting and legitimate authorisation. External influence factors include academic culture, funding, group size, resources, institutional support, level of institutionalisation, the existence of research

centres and national versus international collaborations. Chen, Zhang and Fu (2019) identified three periods in international research collaboration: emergence (1957-1991), fermentation (1992-2005) and take-off (2006-2015). As the period advanced from emergence to take-off, publications increased and the research trajectory went from simple to complicated. Further, they found that political, economic, cognitive and spatial factors drove collaboration.

Research collaboration between developed and developing countries entails special benefits. Minasny, Fiantis, Mulyanto, Sulaeman and Widyatmanti (2020) revealed that we could develop new knowledge and promote capacity building. In this chapter, I aim to summarise the reasons for collaboration in research.

10.2.2 This Study

I collaborated with others in conducting my research. First, relationships with government offices were an issue. Without any connection to the staff, it was difficult to smoothly secure research permission. Second, there was a language barrier issue. In Ethiopia, there are many local languages. Without knowing these languages, it became impossible to conduct research. Third, there was an access issue, as we needed to visit numerous places for research, such as government offices, institutions and schools. Travel became time-consuming. Fourth, there was a time issue. The time I would stay in Ethiopia was limited. Therefore, to use my time efficiently, research collaboration was necessary. Lastly, there was a cost issue of cost. The budget for research was limited, and by collaborating with other researchers in Ethiopia, the research quality of the data was greatly improved.

10.3. What Kinds of Research Collaboration Have Been Done Previously?

10.3.1 Preparation for Research Before Visiting Ethiopia

Due to the time limitations of my stay in Ethiopia, I prepared some necessary elements in advance in Japan. First, I contacted the researchers in Ethiopia asking for their support (see Figure 10.1). I also attached a research proposal to explain the purpose of the research (see Figure 10.2) and a research letter to obtain permission from the Ministry of Education (see Figure 10.3). Next, I explained the purpose of the research, which was to determine school effectiveness in primary schools in Ethiopia. The following research questions were asked:

1. To what extent do students have basic skills?
2. What are the strengths and weaknesses in obtaining basic skills?
3. Which student-level factors influence basic skills?
4. Which school-level factors influence basic skills?

Following this, I received mail from the Ethiopian researchers. They agreed to support me as follows:

- We will visit and consult the City Government of Addis Ababa Education Bureau about selecting the three schools (study sites).
- We will look for experts (subject specialists) to translate the test items and a professional to translate the questionnaire. Could you please let us know the amount of money you plan to pay for the translation?
- We (IER/AAU) will prepare a support letter to the schools and the sub-city Education Department.
- We will accompany you to the study sites during your data collection.

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Greeting from Japan and ask about your support
Dear Dr. A and Dr. B,

This is Kyoko Taniguchi, from Nagoya University, Japan.
I hope that you remember me.

I am writing this e-mail to ask about your support for my research.
Currently, I have been conducting my research on measuring student basic achievement in Sub-Saharan African countries, such as Malawi, Ghana, Uganda, and Botswana. I would like to extend my research to Ethiopia. I have visited Ethiopia for another research two years ago. I am very interested in conducting my research there.

Before I write this mail, I asked support to Mr. G. However, he is still in U.K. Then, he suggested that the best way to conduct research in primary schools is to ask support to Dr. A and Dr. B.

I would like to ask about your support in regard to conducting my research in primary schools and their selection [I would like to visit 3 primary schools (High-achieving, middle-achieving and low-achieving schools) in Addis Ababa], and translation to Amharic.

Regarding conducting research in primary schools, I think I need to get permission from MoE. Could you tell me that way? I wrote a letter and my research proposal. Please find the attached files. If I need to write a letter to Addis Ababa University, please let me know. I will prepare it.

Regarding translation, I am looking for a person who can translate the part of the test and questionnaire from English to Amharic.
Achievement test consists of 40 questions (Amharic 10 questions, English 10 questions, Mathematics 10 questions and environmental science 10 questions). All questions are at the basic level.
Questionnaire consists of 53 questions.

I will pay an honorarium to the cooperation of my research.
I can allow to stay in Addis Ababa for a week. So, I would like to prepare the above until my visit.

I really appreciate it if you support my research.

Best regards,
Kyoko

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Figure 10.1: The first letter to the Ethiopian researchers

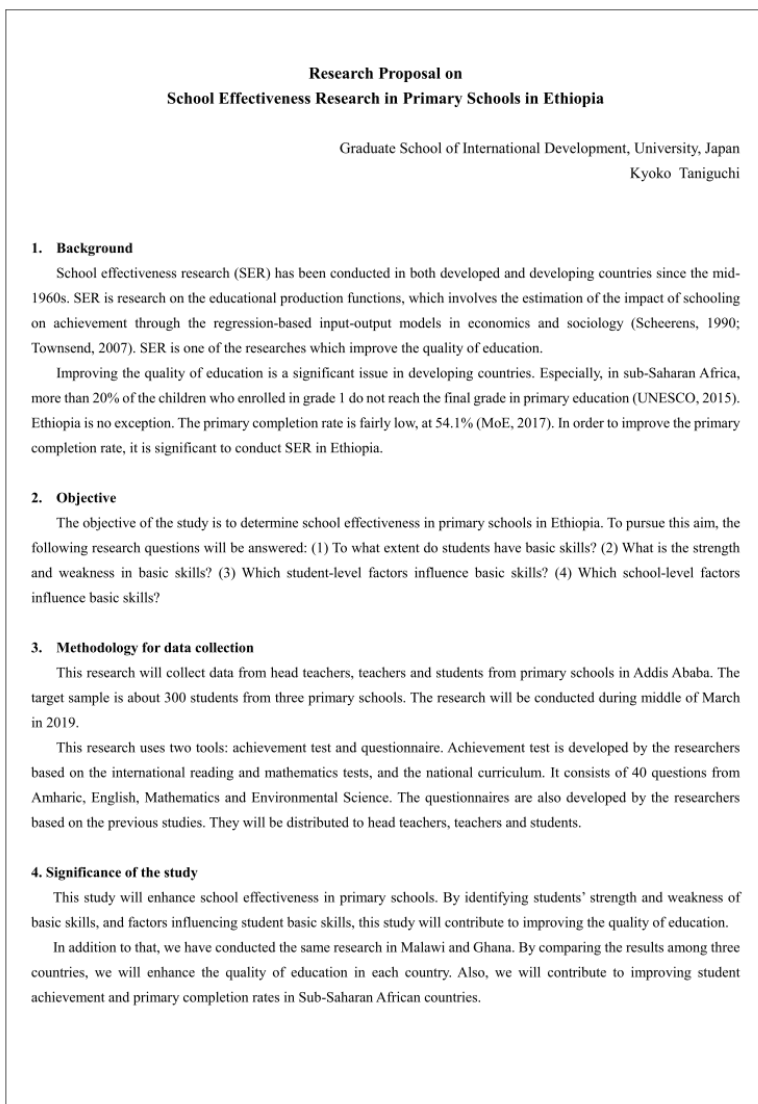


Figure 10.2: Research proposal

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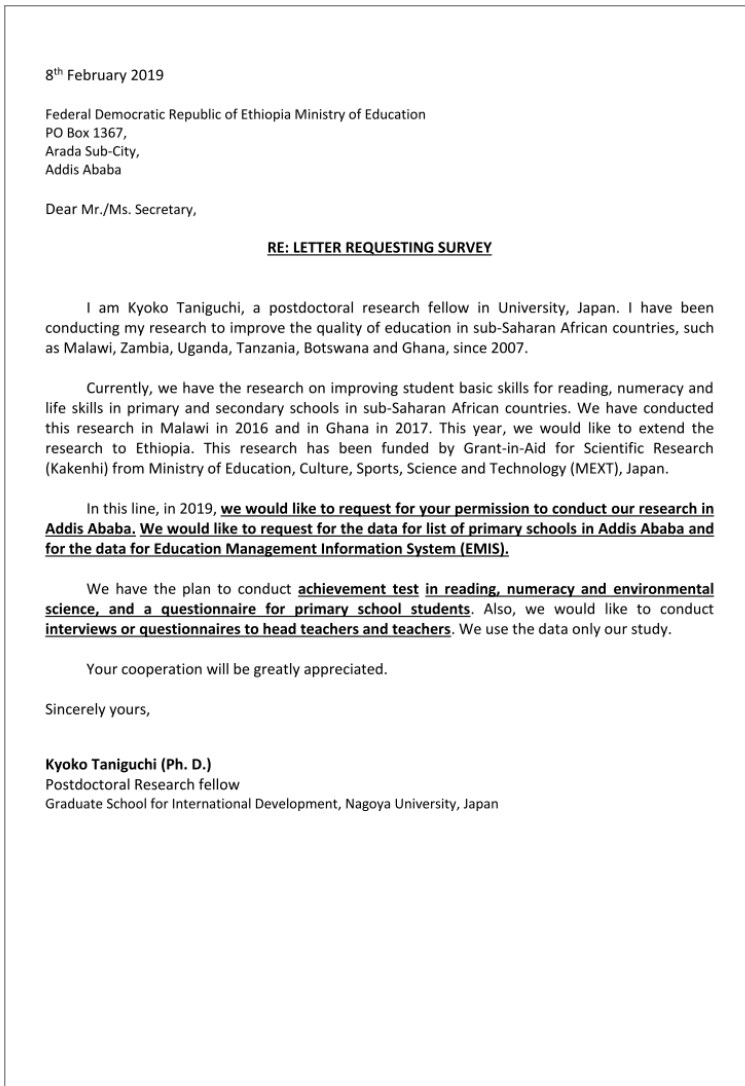


Figure 10.3: Letter to the Ministry of Education requesting permission to conduct a survey

Second, I explained the research methodology, including the research tools and the criteria for selecting the schools. My research plan was to administer an achievement test and

questionnaire to the students and to provide questionnaires to the head teachers and teachers across three primary schools in Addis Ababa. I explained the selection of three primary schools, as I planned to select high-, middle- and low-achieving schools. Furthermore, I inquired as to which schools would be suitable.

Third, I asked for the research tools, achievement tests and questionnaires to be translated from English to Amharic (the local language in Ethiopia) as students up to grade 6 use Amharic as the medium of instruction in schools. After we agreed on the translation fees, the Ethiopian researchers started translating them.

Finally, I informed the Ethiopian researchers of the possible visit dates to Ethiopia and arranged a research schedule. I sent a letter to set up a meeting upon my arrival and sought support from professors at Addis Ababa University to finalise the schedule (see Figure 10.4). After confirming their phone number, I assured them I would call when I arrived in Ethiopia.

The Plan for Research Schedule	
Date	Activity
Saturday, 16 March	Departure for Ethiopia
Sunday, 17 March	Arrive Ethiopia
Monday, 18 March	Appointment with professors in Addis Ababa University Preparation of tests and questionnaire
Tuesday, 19 March	Pre-test
Wednesday, 20 March	Visit School 1
Thursday, 21 March	Visit School 2
Friday, 22 March	Visit School 3
Saturday, 23 March	Departure for Japan
Sunday, 24 March	Arrive Japan

Figure 10.4: Research schedule plan

Since the duration of my stay in Ethiopia was limited, it was necessary to prepare the research plan before arriving in Ethiopia.

10.3.2 Research in Ethiopia

As described above, I sent a letter when I reached Addis Ababa, Ethiopia. Since it was Sunday when I arrived, I purchased a SIM card for my cell phone the following day. During this time, I visited the researchers at Addis Ababa University and discussed the research with them. First, we checked the translations of the test and questionnaire, modifying sections were necessary. Second, we discussed the ability to obtain research permission. As agreed upon previously, the researchers showed support for obtaining permission from the Ministry of Education in the afternoon. Third, we discussed the selection of schools, which resulted in the selection of three public primary schools in Addis Ababa City.

The criteria selection involved one high-achieving school, one middle-achieving school and one low-achieving school. We selected the three schools by checking academic performance and school location in the list of primary schools. Additionally, we selected one school for preliminary research. On the second day, after finishing the data preparation, we visited that school to conduct preliminary research and administered an achievement test and questionnaire to students from grades 3 to 7 to select the appropriate grades for measuring academic achievement utilising the test that I created. After checking their results, we decided to conduct the test strictly in grades 4 and 6. Some parts of the test and questionnaire were modified as a result of the findings. On the third day, we started conducting the main research. I collected data from students in grades 4 and 6, as well as from teachers and headteachers in the selected three primary schools. Although the research days were limited, we were able to collect data from three schools in the span of a week.

10.3.3 Research After Returning From Ethiopia

After my return from Ethiopia, I checked the data before sending it to a company which inputs data. After the data were returned from the company, I cleaned them for analysis. Next, I analysed the data by using statistics (i.e., descriptive statistics, Pearson correlation, t-test, analysis of variance and multiple linear regression) and then summarised the findings in a report. Finally, I shared the findings with the Ethiopian researchers. The results were also presented at conferences and reported in journal articles.

10.4. Advantages of Collaboration in Research

The advantages of the research collaboration are summarised in Figure 10.5. However, my relationships with government offices, proficiency in local languages and access to facilities, time and funds were limited. Nonetheless, these issues could be solved by collaborating with Ethiopian researchers. Additionally, research collaboration increased productivity and maintained a high degree of research quality.

10.4.1 Relationship

Because the Ethiopian researchers work at Addis Ababa University, they have a good relationship with the Ministry of Education as well as several schools. I could obtain research permission easily because they introduced our research. Without asking for their support, it might have taken a long time to obtain research permission. Also, there was the possibility that the schools would not consider my visit vital.

10.4.2 Language

Language is a fundamental issue. Unfortunately, I do not have enough experience speaking the local languages in Ethiopia. If I did not obtain support from the Ethiopian researchers, I would have had greater difficulty conducting this research, such as obtaining the necessary information and researching places where I needed to visit.

10.4.3 Access

I am not as familiar with many places in Addis Ababa because I have visited there fewer than five times. Thus, it often takes time to remember many places in general.

10.4.4 Time

I only had one week in Ethiopia to conduct this research. Therefore, time was extremely limited. If I had not received this degree of support from the Ethiopian researchers, I would have had to spend much time researching places that I needed to visit. In the end, I would not have been able to finish the research within a week's stay in Ethiopia.

10.4.5 Cost

As conducting research often comes with a budget, it was necessary to collaborate with Ethiopian researchers to use the limited budget efficiently.

The advantages of research can be summarised as follows: obtaining unique data, sharing ideas, learning new skills, receiving feedback and deepening relationships. First, I was able to obtain unique data. In this research, I was able to obtain data from high-achieving, middle-achieving and low-achieving schools. However, I did not have information on the achievement levels of the schools beforehand, as the Ethiopian researchers received this information from the Ministry of Education. Second, I shared ideas such as the purpose of the research to measure basic student achievement by asking students to answer some question items. Sharing of ideas can have a positive effect on collaborative research. Third, I learned new skills. For example, I learned how to communicate with teachers and students in Ethiopian primary schools through the Ethiopian researchers. Fourth, I received feedback from the Ethiopian researchers. I shared the findings with them and we discussed how to improve academic achievement in primary schools. Finally, our relationship became more robust than before as we conducted the research together, visited the primary schools, shared the findings and discussed

the issues. This process enhanced our relationship. As a result, we were more productive and the quality of the research was higher.

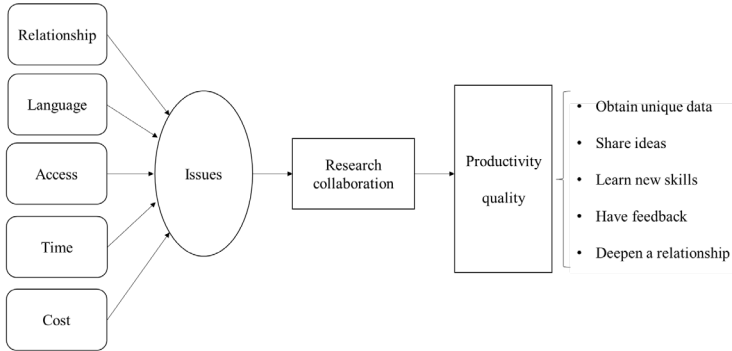


Figure 10.5: Summary of the advantages of international research collaboration

10.5. Conclusion

I have described the international research collaboration between Addis Ababa University, Ethiopia, and Hiroshima University, Japan, at the individual level. In this research, preparation prior to arrival in Ethiopia was vital due to the limited time in Ethiopia. By collaborating, we formed a relationship with the Ministry of Education and primary schools, overcame language difficulties, accessed many places easily, used the limited time efficiently and managed to minimise the research cost, accruing five advantages:

1. obtaining unique data,
2. sharing ideas,
3. learning new skills,
4. receiving feedback and
5. deepening relationships.

In the end, we had sufficient productivity and obtained high-quality research.

This form of international research collaboration is unique. Nonetheless, it is not easy to implement. Therefore,

it is necessary to have a good relationship prior to beginning the research. In this case, we needed to share the purpose of the research and gain a common understanding. Collaborating resulted in a number of beneficial outcomes and the relationship with the researchers became more robust than before.

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