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Government Sponsored Students as Agents of National Development?
Perspectives of Mongolian Alumni from Japanese Graduate Schools

BY

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Abstract

This study explored the experiences of Mongolian alumni sponsored by three types of Japanese and Mongolian government funded scholarship programs who studied and graduated from Japanese universities with Master's and/or Ph.D. degrees. While all three scholarship programs share similar aims to prepare human resources who would contribute to Mongolian national development in some ways, each program has its own scheme, characteristics, selection criteria, programming, and different types of agreements with students regarding their post-program trajectories. Through sequential mixed methods research, this study elaborated the differences in alumni's learning experiences in Japan and their career path by their scholarship programs. It also found similar patterns in how alumni conceptualize their learning process in Japan, benefits of their studies, ways in which they contribute to their home country, and the challenges they face in their efforts.

Although government-sponsored international higher education scholarship programs date back to the colonial period, it was from the latter half of 20th century when scholarships as 'a vehicle for overseas development assistance' underpinned widespread investment by governments (Dassin et al., 2017). Netherlands, Germany, the UK, or Australia have a long history of providing scholarships for foreign students to study in their countries as a form of development aid (Kent, 2017). Similarly, human resource development and self-help philosophy have been an integral part of the development strategy in Asia, particularly in Japan, Korea, and China (Yamada, 2016).

In 2015, the United Nations (UN) recommended in number four (target b) of its Sustainable Development Goals to 'substantially expand globally the number of scholarships available to developing countries...for enrolment in higher education' (UN, 2015). The rationale behind this goal and many other scholarships is that 'scholarships for individuals to pursue international education can lead to more equitable, sustainable, inclusive and prosperous communities' (Dassin et al., 2017). Another assumption is that individuals would develop not only technical and professional skills but also critical and analytical thinking, leadership skills, build personal and professional networks, and expand their perspectives to look at issues, or become better equipped to solve problems (Campbell, 2016). However, despite growth in a number of available scholarship programs, much remains unclear about sponsored students experiences—whether their learning experience prepares them to make

changes in their communities upon completion of programs and how these alumni “give back” to the home country.

Applying transformative learning theories (Mezirow, 1991; Freire, 1970), the human capital theory (McMahon, 2009), and human capability approach (Sen, 2000), this study 1) explored how Mongolian grantees make meaning of their learning experience in Japan as recipients of government-funded flagship scholarships, 2) examined the perceived contributions of scholarship alumni to the national development of Mongolia, and 3) elaborated the contextual challenges alumni face in their attempts to apply their knowledge and skills in the Mongolian contexts. Another sub-question was to examine how scholarship program agreements influence students’ choices and trajectories based on alumni accounts. The transformative learning theories made it possible to explore whether these sponsored students learn in fundamental ways beyond technical skills and academic degrees but in life-changing ways that promote “action” when they complete their programs. The human capital theory and human capability approach—the foundational theories that support the rationales of these government scholarship programs, were useful to explore how alumni understand their role in the home country development.

Employing exploratory sequential mixed methods (Creswell, 2014) this study consisted of three phases—1) phenomenological study that explored alumni experiences through semi-structured interviews, 2) questionnaire study that explored the prevalence of themes from the first phase, differences between programs, areas of studies, job positions, and 3) follow-up interview phase to elaborate findings from the two previous phases. As a result, the study had four key findings.

The first main finding was that alumni developed multiple perspectives and contextual understanding in Japan (perspective transformation), in addition to other technical knowledge and skills. This includes alumni’s ability to understand their own assumptions of self and others, see how their perceptions of reality shape their thoughts and actions, and an ability to see an issue from different perspectives. The interview findings showed that alumni had perspective transformation through three types of entry-ways: 1) by experiencing disorienting dilemma that pushed them to reflect on their assumptions of self and others, 2) through observations and constant comparisons led by their existing motivations and interests 3) by trying different roles and behaviors in order to meet the social expectations. Both academic and socio-cultural factors played an important role in alumni’s transformative experience. This included both challenges (that shook their beliefs) as well as supports (such as mentorship). Supervisors played an important role in challenging as well in supporting

alumni. Family especially the presence of children helped alumni to get out of the structured academic world and be more immersed in other extra-education activities and ordinary Japanese society. However, lack of challenging experience that stimulated growth, ineffective communication with supervisors, lack of educational and social supports to grow, and a few opportunities to act on their learning were detrimental to their perspective transformation. While most alumni experienced initial stages of transformative learning—questioning their assumptions, only about half were able to take actions on their learning.

The second main finding was that regardless of their program types alumni were motivated to contribute to their communities, institutions, as well as the economic, political and legal conditions of Mongolia. Many found ways to do so through multiple channels such as teaching, conducting research, forming NGOs, taking over projects outside their full-time jobs. Staying in Mongolia regardless of low-pay, running business, bringing foreign investments, or just improved quality of works were viewed as a contribution to the national development. Alumni viewed themselves to be role models in morals and ethics which were understood something crucial for the national development. In addition, higher education institutions and alumni hubs such as rotary clubs provided positive platforms that encouraged alumni to act on their learning and take an action.

The third main finding was that alumni face structural and institutional challenges to find suitable jobs, apply their skills and knowledge, and make positive changes once they return to Mongolia. Alumni lacked a sustainable policy framework and mechanisms to support them beyond their education abroad. The scholarship programs did not show meaningful support for alumni either—it was up to them to utilize their education and experiences. However, without support, only a few alumni could take meaningful actions. While alumni-initiated associations existed, they lacked funding and administrative support to facilitate any meaningful discourses.

The fourth finding was that while binding scholarship agreement that required alumni to return to their home country and work for government organizations for certain period partially “worked” in the short term, these agreements did not seem to work in the long term due to absence of efficient mechanisms and policies that support these agreements. The JDS and MGL alumni returned due to binding agreements that require them return to home country and work for government or state sector for a certain period of years; however, many struggled to find jobs at the institutions with which they made contracts. Also, working in such organizations did not mean that they could apply their learning in positive ways due to work culture and lack of supports that inhibit alumni share their voices. MEXT alumni, on the

other hand, did not have any agreements that required alumni return; however, many did return to their previous institutions. The findings suggest that alumni generally struggled to return to government sector due to high perception of corruption, lack of job positions or frequent restructures, or alumni avoided returning to these organizations due to low pay and lack of compelling work environment. On the other hand, alumni return rate was higher to higher education institutions, research centers, and hospitals. Alumni working in these organizations also felt that they have more contributions in their sector through teaching and research.

Overall, these findings illustrated the importance of intentional programming before, during, and after the scholarship programs. A shared understanding of scholarship programs goals between host university, program administrators, and policymakers in the home country is fundamental to ensure that students gain not only technical skills but also develop their agency to act on their learning and make changes in their home country. Policy frameworks that tie the scholarship programs with national development goals and administrative and financial support for alumni hubs are essential to ensure the long-term impact of these programs in the home country.

Finally, the transformative learning theories offer a promising approach to illuminate the learning experiences of foreign students abroad and for designing intentional intervention programs to foster students' self-agency. In addition, the framework helps researchers connect the learning with individual actions beyond learners' graduation.

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Chapter One. Introduction

International higher education scholarship programs have long been viewed as a tool to develop nations by many sending and receiving nations (Campbell, 2016). In Japan during its restoration period (Meiji period, 1868-1912), top elites of Japan were sent to study in western elite institutions of higher education to learn from the technological advancement and bring back the knowledge, skills, and networks necessary for the national development. In recent years, countries in the Middle East and South America have launched international scholarship programs to educate their undergraduate and graduates abroad (Perna et al., 2014). On the other hand, many host governments fund international scholarship programs as a form of development assistance to developing countries, to strengthen mutual understanding, and promote cooperation and network between the countries (Mawer, 2014; Perna et al., 2014; Varghese, 2008).

Silova & Steiner-Khamisi (2008) noted that educational development programs were of great importance to the former Soviet bloc countries to develop their national economy and society after the dissolution of the Soviet Union. In order to address the shortages of highly skilled workers in the newly developed transitional market-economy, many former Soviet governments established their own international education exchange programs to send students abroad mostly to highly developed countries (Perna et al., 2014) but also relied on international aids to prepare human resources who would contribute to the national development. In 1997, the government of Mongolia launched a loan-based scholarship program to prepare professionals in target fields and started funding Mongolians to study in highly developed countries around the world. According to the Education Loan Fund (ELF) (formerly known as State Training Agency) (2017), around 2076 Mongolian students have been supported by the Mongolian government to get higher education degree—mostly at the graduate level—in highly developed countries. While during the socialist era Mongolian elites were prepared in former Soviet countries, the pattern changed after the 1990s as Mongolia opened up to the world. Besides the two neighboring countries—China and Russia—, South Korea, Japan, USA, Germany, and Turkey became popular destinations for the international degree (UIS, 2018).

In East Asia and Pacific, countries such as Japan, Australia, and China provide international scholarships as part of their official development assistance (ODA). As a form of assistance to low- and middle- income countries, these governments offer their higher education for highly skilled students who are expected to be future leaders in their fields.

Through international scholarships, these governments aim to bring and prepare future leaders of these countries with a rich understanding and appreciation of their host countries and their cultures (MEXT, 2016; Dong & Chapman, 2008; Amazan, Negin, Howie, & Wood, 2016). Japan established its national scholarship scheme in 1954 first as a war reparation to Southeast Asian countries, later expanding the program to contribute to the human resource development and to prepare pro-Japanese leaders in neighboring developing countries (Sato, 2005). Then in 1999, Japan started to offer the Grant for Human Resources Development (JDS scholarship) for targeted developing countries, mainly in East Asia, with more specific goal to develop institutional capacity through human resources development. Largely funded by the Official Development Assistance (ODA), such international scholarship programs are important part of Japanese development aid (Yamada and Yoshida, 2016).

While study abroad and international education is generally well researched, scholarship programs and their recipients still lack detailed empirical studies. International higher education scholarships have a long history dating back to the British colonial time; however, it was only from the 2000s when few programs started internal evaluations of their programs. Today more programs have their own evaluation and assessment mechanisms, but they are still heavily driven by numbers—graduation, return, or employment rates upon completion of the programs. Most do not track alumni in the long-term after graduation and few evaluation studies are publicly available.

Previous scholarly works discuss both negative and positive effects of scholarship programs to the home country. Some studies argued that international scholarship programs contribute to emigration or brain drain (Tremblay, 2005), lost opportunity for the beneficiary countries as most scholarship funds are spent in the donor countries (UN, 2015a), higher per capita training cost to train students in advanced economies (Banya & Elu, 2001), or possibly reproducing the elite class further increasing the inequality within the country (Dassin and Navarette, 2018). On the other hand, some studies showed an evidence of positive benefits such as raising national economic growth and productivity (Kim, 1998), spreading democratic values in home countries (Spilimbergo, 2009), improving human rights practices (Atkinson, 2010), or making social changes through alumni associations (Campbell, 2016a; Campbell & Baxter, 2018).

Nevertheless, the importance of international higher education scholarship programs to the home country is emphasized in the Sustainable Development Goal (SDG). In 2015, the United Nations (UN) (2015) recommended in number four of its Sustainable Development Goals (SDG) to “substantially expand globally the number of scholarships available to

developing countries...for enrolment in higher education". However, still much remains unclear about the impact of international higher education scholarship programs in various contexts.

The dominant assumption of SDG 4b and other scholarship programs is that the scholarships "prepare students from developing countries for future work and that international scholarship experience will make the recipient more able, and perhaps more willing to be an agent of social change" (Balfour, 2016, p. 8). However, little is known about the learning process, outcome, or impact of government-sponsored students and how they view their role in the home country. The common measurements of scholarship programs, such as the number of returnees or post-graduation job positions, do not necessarily show how alumni contribute to society. Recent studies have started to shed some light on factors that influence alumni post-scholarship trajectories such as scholarship program conditionality, individual agency, or home country contexts (Marsh, Baxter, Di Genova, Jamison, & Madden, 2016; Campbell, 2018), and the different channels through which alumni contribute to their home countries including publications, research projects, or advocacy works (Mawer, Quraishi, & Day, 2016).

Most of these studies examined scholarship programs in the North America or Europe. Despite Japan's long history of providing higher education scholarships for developing countries especially in Asia, there is a lack of studies on scholarship students' experience in Japan, their post-graduation trajectories and their role in the home country development. On the other hand, while Mongolia is a highly mobile nation with an outbound mobility rate of 11% compared to the gross domestic enrollment rate, it has not received much attention regarding its student mobility due to its small population size of 3.2 million. In addition, as scholars noted (Baxter, 2018; Balfour, 2016), little research exists regarding regional level scholarship programs that send students within the region and their impact on home country development.

To help address this gap, this study explores how Japanese- and Mongolian-government funded Mongolian alumni of Japanese graduate schools make meaning of their learning experience in Japan as well as their post-graduation role in national development. Three scholarship programs—"Research student scholarship" by Japanese government (referred to as 'MEXT scholarship' in this study), Japanese Grant Aid for Human Resource Development (referred to as 'JDS scholarship'), and Mongolian government loan-scholarship ('MGL scholarship')—are compared to see if there are any differences in how alumni

conceptualize their role in home country development by scholarship agreements that require them to return home after graduation.

Due to the lack of basic data and limited follow-up information available, this study could not create a random sample group that can represent the program alumni in general. Through purposive snowball sampling and recruiting alumni via a broad range of social groups, alumni associations, and program administrators, this study aimed to reach broad range of alumni graduates from different host universities and disciplines. In addition, this study focuses on alumni's self-reporting data without including other perspectives such as employers or customers with whom alumni work with. Due to these reasons, this study does not aim to make an overall evaluation of each program. Rather, this study explores if and how alumni have transformative learning experiences in Japan that help them see both Mongolia and Japan from diverse critical lenses, expand their perspectives of the world and issues in their fields, explore their perspectives regarding their roles to home country development, and lastly, challenges that hinder their contributions.

1.1. The research problem

Three main problems shaped this study. First, there is a lack of research on these three government scholarship programs funded by Japanese and Mongolian governments and how the grantees understand their experience or role to the home country development. Current measures to understand the scholarship program outcome, such as by the number of returnees, does not necessarily show how alumni contribute to society. Webb (2009), for example, noted that although almost all recipients of AusAID scholarships from Cambodia had returned, few viewed their awards as part of a national development strategy for Cambodia, but rather as a route to professional advancement and out of the Cambodian public sector, where wages were very low.

Despite a stable, long-history of sponsoring thousands of international students from developing countries to study in Japan, there is very little research on their learning experience, outcome or impact of these scholarship programs not only at the personal level but also at institutional or community level. No previous studies questioned how Mongolian alumni viewed their experience in Japan and their role in the home country development. It is impossible to conduct one generalizable study that measures overall impact due to lack of efficient tracking system, difficulty to create a random group of alumni or comparison groups, changes in social, economic and legal contexts, the difficulty of attrition and contribution, long

lapse of time between the study and the research. Therefore, an in-depth study of alumni from one country will show many important details on scholarship program outcome.

Second, international education experience is little explored from transformative learning approaches for its potential to transform students' value and perspectives. The literature on learning outcomes by Deardorff (2006) and Jackson (2015) and many others well demonstrated that sending students abroad does not magically make students develop intercultural competencies, other skills, and values that the programs hope to develop. Studies indicated that the living and learning environment, language knowledge, challenges and support, engagement of the program, teaching and learning style influence students' success in higher education. The scholarship programs that aim to prepare Mongolian human resources in Japan similar to many other government scholarships indicated that they want students to develop intercultural skills, pro-Japanese values, and beliefs, motivation and skills to connect Mongolia to Japan and other international communities. Although hundreds of students are sent to Japan on scholarships, it is unclear what kind of activities influence their perspectives, values, and behaviours. It is unclear if they experience perspective transformation—to see things from different perspectives and to develop more accepting worldviews.

Third, it is unclear what challenges Mongolian alumni face in their endeavours to apply their knowledge and skills in Mongolian context. While highly mobile, Mongolia is an understudied country as a peripheral location in student mobility. With only 3.2 million population, the number of mobile students looks very small (estimated to be around 17000) on the global scale of 5.1 million mobile students as of 2017 (UNESCO, 2018). However, if compared to the home country enrollment it shows quite a different picture—the ratio of outbound student to home country enrollment is 11% for Mongolia while for China it is 2 and India—0.9 (UIS, 2018). In the recent Global Education Monitoring Report (UN, 2018), this relationship between the outbound mobility rate and the overall tertiary participation rate is explained. The bigger the overall tertiary participation, smaller outbound mobility; smaller the overall tertiary participation, larger outbound mobility rate—in other words, the outbound student mobility rate and the home country enrollment rate has a negative relationship (UN, 2018). There are many other peripheral countries similar to Mongolia that have high mobility rates but are understudied due to a small population. Understanding the perspectives of Mongolian alumni, the challenges they face, and necessary supports would help the scholarship program administrators modify their programming in order to achieve better efficiency and positive outcome.

Finally, we need program level comparisons in order to understand what conditions, schemes work and why. The three programs in this study—Japanese government scholarship (MEXT scholarship), JICE-JDS scholarship program, and the Mongolian government scholarship program—share similar aims to prepare human resources for Mongolia despite their other additional purposes such as preparing pro-Japanese leaders in the home country or to strengthen the institutional capacity. However, they have different program schemes and most importantly different requirements to return to home country. While MEXT scholarship does not require alumni to return home (non-binding agreement), the JDS and MGL scholarship programs have binding requirements (binding-agreement) that strictly require them return to home country. Therefore, comparing these programs in terms of how these different requirement influences students' choices and post-program trajectories has an important implication for scholarship program administrators.

1.2. The purpose of the study

The main purpose is to expand our understanding of how government-sponsored scholarship programs for low- and middle-income countries contribute to their national development through alumni accounts. By focusing on one home country and one host country, this case study provides a holistic analysis of how scholarship students make meaning of their experience and how they understand their role or responsibility to their home country development as a result of different scholarship programs with different schemes.

The secondary purpose is to explore the learning experience—whether alumni's perspectives changed in fundamental ways by living and learning abroad when examined from transformative learning perspectives. The scholarship students are perceived to be the best and brightest of their fields who would take important roles in their home country development and in strengthening the relationship of two countries. Therefore, it is important to explore whether students develop in meaningful ways besides acquiring knowledge in their fields and observing the different culture.

The third purpose is to explore whether scholarship program conditions, such as binding agreements that require graduates to work for government organizations for certain amount of years or non-binding agreements that generally expect graduates to return but do not bind them into any obligations, have any influence over alumni trajectories and their perceptions regarding their role in the national development.

1.3. The research questions

To answer these problems, this study poses three main questions.

1. How do the Mongolian alumni of Japanese graduate schools make meaning of their learning experience in Japan as they look back after long time?
2. How do the scholarship grantees perceive the benefits of their study to the home country?
3. What challenges do the alumni face that limits their contribution to home country?

In addition, I have one sub-question 4) How do the program conditions and requirements influence students' experiences and their choices?

1.4. Research objectives

To answer these questions, this dissertation critically examines how Mongolian alumni who graduated from Japanese higher education institutions with Master's and Ph.D. degrees between the years of 2001 and 2015 perceive and conceive their learning experience in Japan as well as their post-program trajectories. To explore how scholarship program conditions influenced alumni's learning experience and trajectories after graduation, this study focuses on graduates from three types of scholarship programs—Japanese government “Research Student scholarship” (MEXT scholarship), Japanese Grant Aid for Human Resource Development (referred to as ‘JDS scholarship’), and Mongolian government loan-scholarship (‘MGL scholarship’). The main goal of all three programs was to develop human resources who would contribute to the home country development through leadership roles in their fields, taking part in strengthening their institutional capacities, and building bridges between Mongolia and Japan. However, each program had different agreements with their students that strictly or loosely bound scholars to return home or did not require them to return at all.

All three scholarship programs have an underlying assumption that international education in Japan shapes scholarship students with mindsets, skills, and knowledge to make a positive impact on their societies. Thus, alumni learning experiences were explored through transformative learning lenses—personal transformation (Mezirow, 1978) that leads to social transformation (Freire, 1970, Brookfield, 2012). Individual perspective transformation is the process of becoming critically aware of our assumptions of self and others and understanding how such assumptions have come to constrain the way we perceive, understand, and feel about our world (Mezirow, 1978). The social critique model of transformative learning (Freire, 1970, Brookfield, 2012), on the other hand, views that such transformation builds a personal agency that allows learners to make changes in their community. Mezirow stated,

“Personal transformation leads to alliances with others of like mind to work toward effecting necessary changes in relationships, organizations, and systems” (1991, p. 252). While scholarship programs in this study did not explicitly state what type of learning experience they hope for the grantees, previous studies show that scholarship alumni largely regarded their “transformative” experiences to have fuelled their motivation to “give back” and make changes in their home country (Campbell, 2016; Campbell and Baxter, 2018).

In addition, the rationales of most international scholarship programs align with human capital theory (Becker, 1975) and human capability theory (Sen, 2000) (Campbell & Mawer, 2018). Human capital theory (Becker, 1975) posits that financial investment in an individual’s education has a positive influence on individuals’ productivity and the communities. This study, likewise, draws on McMahon’s (1999) concept of the human capital theory that argues educational investment should be measured by a wider set of factors rather than narrow measurement of individuals’ economic productivity. He termed such wider set of factors as *Endogenous Development* and included economic growth, health and population, democratization and human rights, reduction of poverty and inequality, the environment, reduction of crime and drug use, labour force participation, and education enrolment (McMahon, 1999). On the other hand, the human capability approach (Sen, 2000) views that education as emancipatory and empowering with the potential to make it possible for human beings to lead their own lives in ways they value. While scholarship programs under human capital theory would require students to return to home country in order to benefit from their spill-over effect, the programs under human capability approach would ask what options do alumni have as a result of studying abroad and what they can do with them. These two theories are used to analyze alumni’s perceived roles in the national development.

1.5. Interest in the subject

I am driven by both personal and professional passion to explore this topic on scholarship program alumni and their role in home country development. Personally, I was international scholarship student of three different programs—1) the Open Society Institute’s Undergraduate Exchange Program dedicated for undergraduate students from former Soviet bloc countries to explore civil society and American university curriculum, 2) the Fulbright Foreign Scholarship Program for my Master’s degree in the US that promotes mutual understanding between two countries, and 3) the Japanese government scholarship program for my PhD degree in Japan. Professionally, I worked as an in-country program coordinator

for the Open Society Foundation's international scholarship programs and higher education support grants in Mongolia for seven years. During this period, I witnessed many alumni becoming active in making social changes and wondered what transformational learning, home country contexts moves students toward acting as agents of social change.

Through my personal and professional experience, I observed how professionals were passionate to learn and grow from their international experience but struggled when they tried to apply their knowledge, skills, and ideas after coming back. Some were successful but some were not. Largely, there was little follow up on scholarship alumni and little support to help them utilize their international experiences. These personal and professional experiences not only motivated me to learn about Mongolian alumni's experiences but also helped me throughout this study with an insider's knowledge, and to reach out to possible participants.

1.6. The significance of the study

This in-depth mixed methods study on Mongolian alumni aimed to contribute to the understanding of international higher education programs that tend to aid the development of low- and middle-income countries. First, it aims to explore whether scholarship alumni were able to develop perspective transformation. While international education is studied from many other angles, a transformative learning approach is little explored. Factors that supported alumni to develop perspective transformation and conditions that hindered their growth would be useful for scholarship program administrators as well as host universities to promote more intentional learning experience, to foster critical thinking that challenges students' assumptions of self and others, and to help them develop more wider perspectives to see the world. Adoption of transformative learning theories to understand scholarship students' learning experience has a potential theoretical implication for future research.

Second, this study aims to identify the contextual issues that promote or hinder Mongolian alumni's ability to use their expertise in making changes in their communities. Understanding these issues would be useful for scholarship administrators but also Mongolian policy makers to more effectively utilize these alumni for national development.

Third, by comparing three different programs this study aims to identify how certain program conditions and programming can influence alumni's ability to give back to their home countries. This information would be useful for program administrators and policymakers to consider redesigning their programs—in order to increase quality and make positive impacts.

1.7. Definitions of key terms

International higher education scholarship programs

There is no one definition of international scholarship programs due to a variety of program goals, schemes, program levels, funding types, host and home countries. However, in this study the general definition by Bhandari and Mirza (2016) grounds the international higher education scholarship programs for developing countries, which is “a grant or payment (regardless of funding amount) made by a developed or developing country’s national government to students from developing countries to support their education at a tertiary level...that will result in a degree, certification, or recognized award” (2016, p. 4).

Low- and Middle-Income Countries

Definitions of low- and middle-income countries used in this study are the same as the World Bank’s definition of lower- and middle-income economies (World Bank, 2019). The Bank’s low-income economy is defined as or less than \$995 gross national income (GNI) per capita. Middle-income countries are those with a GNI per capita of more than \$996 but less than \$12,055.

Binding and Non-binding agreements

Campbell (2018) defined three main types of post-scholarship conditions. The first type is *binding agreements* which are “mostly associated with international scholarships funded by private companies or national governments that expect students will return with new skills and apply them when they come back. They usually specify the academic degree, work conditions, the length of service needed to fulfill the requirements”. The second type is called *social contracts*, when “funder delivers a strong, consistent message of what is expected of the grantee following their studies, without putting a binding agreement in place”. The third type is called *vague post-scholarship* guidelines that have little or no information provided to the scholars about post-program expectations. In this study, I called the third type as non-binding agreement.

Alumni as Agents

Dassin (2018b) identified change agent pathway was one of the five main pathways that international higher education scholarship programs contribute to social change. They noted, “individual recipients generate positive social change through personal action, ranging from

professional activities such as teaching or practicing law to policymaking at the highest levels" (p.4).

Perspective transformation

The *Perspective Transformation* refers to Mezirow's conceptualization of transformative learning as,

the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and finally, making choices or otherwise acting upon these new understandings. (Mezirow, 1991, p. 167)

Perspective transformation is one of the guiding theoretical concepts in this study that help elaborate alumni's learning experience in Japan. Detailed explanation is presented in the next chapter, Literature Review.

1.8. Overview of the Dissertation

Following this introductory chapter, chapter II situates the study within related theories (transformative learning theories and human capital theory and human capabilities approach) as well as scholarly works on international students learning experiences including scholarship students, positive and negative impact of international higher education scholarship programs on national development. The literature review ends with gaps identified for further research, and the focus of this study including the conceptual framework that guide this study.

Chapter III reports key background information regarding international education and student mobility in Japan and Mongolia. Then Mongolian students' mobility trend to Japan is presented based on survey data from Japan Student Services Organization (JASSO). Next, the three focal scholarship programs in this study—the MEXT scholarship program, JDS scholarship program, and MGL scholarship programs are presented in terms of their brief descriptions, conditions, selection criteria, and return requirements.

Chapter IV presents the methodology and research design for this study—Exploratory Sequential Mixed Methods Design—qualitative phenomenological study, quantitative survey study and follow-up interview phase. The chapter explains the rationales behind choosing the research paradigm, methodological approach, and explains research processes in each phase, as well as concerns and reflections over the validity and ethical issues.

Chapter V reports the main findings from the phenomenological study, the first phase of the study. The chapter is divided into three sections according to the research questions. First, alumni's learning experiences are explored as they reflected on their journey to and in Japan. Alumni developed multiple perspectives and contextual understandings through three main pathways: by being pushed in, by diving in, and by testing the waters. Most alumni who developed such perspective transformation had experienced a disorienting experience that made them realize that their current assumptions did not fit their current reality. Second, alumni's perceptions regarding their contribution in the socioeconomic development are explored. While some alumni could act on their self-agency to make changes in the society (e.g. by forming alliances and groups), some faced much obstacles to even apply their skills and knowledge in Mongolian context. The third section explores these contextual challenges that hinder Mongolian alumni's contribution for their home country socioeconomic development.

Chapter VI presents the findings from online survey and follow-up interviews. The first three sections report the extent of perspective transformation by demographic and program variables, learning activities that promoted transformative learning, and alumni's general feelings regarding their experience in Japan. The latter three sections present alumni's individual level outcome, their perceived contribution, and challenges they face. While the survey aimed to test the prevalence of findings from the phenomenological study in the first phase, the follow up interview aimed to elaborate alumni's responses in the survey.

Finally, chapter VII reflects on findings from all three phases of the study and highlights salient areas with regards to the overarching research focus of the study and in relation to previous research. These areas, such as the perspective transformation process, main factors that help alumni question their assumptions and develop their agencies, ways in which alumni contribute to the home country development, and the challenges that limit their efforts to give back. The chapter then offers both theoretical and practical implications for researchers, scholarship program administrators, funders, host universities, as well as Mongolian public policymakers. The chapter concludes with limitations of this study, and future areas for the proposed research.

Chapter Two. Literature Review

This chapter introduces existing scholarly works in the field of international education, learning theories, and the relationships between international higher education and home country development with a focus on scholarship programs. It consists of six sections first starting with theories that underpin this study highlighting their relevance to the topic. Then literature on scholarship program research, followed by studies regarding learning experiences of international students, particularly scholarship students are presented. Next, studies concerning the relationship between international education and national development are presented. The chapter concludes by identifying the gaps in the scholarly works and the conceptual framework of this study.

The first section presents transformative learning theories that are useful to understand how alumni make meaning of their learning experience and whether their experience helped them develop their agency. The transformative learning theories from a cognitive/rational perspective (Mezirow, 1991) emphasize the process of making meaning of one's experience such as living in a foreign country while the social critique perspective (Freire, 1970) emphasizes the social action by learners as a result of the emancipatory learning experience. These theories postulate that transformative learning experience expands learners' frames of reference and prompts the learner to act on their expanded perspectives and possibly make changes in their communities.

The second section provides background on human capital theory (Becker, 1964; Schultz, 1961). The human capital theory (HCT) is one of the central theories of change that ground international higher education scholarship programs including the Japanese and Mongolian government scholarship programs in this study. The HCT postulates that investment in an individual's education is related to enhanced individual and community outcomes—both economic and social benefits (McMahon, 2009).

The third section presents the human capabilities approach (Sen, 2000) as another theory of change for supporting individual growth. Many philanthropic programs are based on human capabilities approach aiming to enable scholars to make choices and lead their lives in ways they value for. Campbell & Mawer (2018) called for human capabilities approach as a more suitable approach for sustainable development goal four target b.

The fourth section focuses on international scholarship programs and pathways for social change agents. This section has four sub-sections. The first subsection presents international scholarship programs as a field of study. The second subsection explores

literature on international students' learning experience, in particular, those that promote social change agents. The third subsection presents literature that reported a positive relationship between international higher education and home country development. Finally, the fourth subsection presents earlier studies that reported a negative relationship between international higher education and home country development.

Finally, the fifth section presents the gaps in the literature, research questions and the conceptual framework guiding this study. The conceptual framework is built on existing literature regarding international higher education scholarship programs and their outcomes for the home country development.

2.1. Transformative Learning Theory

The rationales underpinning international scholarship programs that aim to develop human resources with widened perspectives, skills, and motivations to make changes in the home country call for an emancipatory learning experience. The transformative learning theories postulate that adults expand their existing frames of references by critically challenging their assumptions, beliefs, and ideas about self and the world, and developing more inclusive, discriminatory perspectives towards self and others through an active participation in emancipatory education or by being challenged by distorting experience or dilemma. Graduate education fosters an intellectual growth that requires a high degree of specialization in disciplinary subfield leading to cognitive development (Stevens-Long, Schapiro, & McClintock, 2012). In addition, living in another country in a new system and culture promotes other dimensions of development in emotional and behavioral areas.

While transformative learning (TL) is conceptualized slightly differently by scholars, the outcome is similar—"more inclusive, discriminating, and permeable worldview" (Mezirow, 1991). The three dominant conceptions are 1) cognitive rational perspectives by Mezirow (1991) that emphasize critical reflection and rationality 2) extrarational perspective (e.g. Dirkx, 1998 or Tisdell, 2000) that focus on emotional, imaginal, spiritual learning and 3) social critique perspective (Freire, 1970) that focus on social action. From cognitive rational perspectives, perspective transformation is,

the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and finally, making

choices or otherwise acting upon these new understandings. (Mezirow, 1991, p.167).

Mezirow proposed ten steps to reach perspective transformation that includes, facing a disorienting dilemma or challenges; reflection on existing assumptions and values; critical dialogues with others understanding that this process is shared; trying and testing different roles, and taking an action or making decisions based on new inclusive perspectives. While proposing ten steps, Mezirow noted that they do not have to be followed in a linear fashion for transformation to occur (Taylor, 1998, p.40; Mezirow, 1991, p.160); however, once changed, the person does not go back to previous perspectives. For example, a person after developing more inclusive perspectives of LGBT communities would not go back to being homophobic. Mezirow's perspective transformation is based on a constructivist and universal view of learning "explaining a process of constructing and appropriating new or revised interpretations of the meaning of one's experience with a goal of greater personal autonomy and independence" (Taylor & Cranton, 2012, p. 213). In other words, individuals are perceived to make meaning of their experiences by questioning and revising their perceptions drawing on their previous experiences (Falk et al., 2012; Kegan, 2000; Taylor & Elias, 2012), and that they have a responsibility to improve their life while also improving the conditions of those around them (Baumgartner, 2012; Gambrell, 2016; Taylor & Cranton, 2012).

In extrarational perspectives, Boyd and Myers (1998) addressed transformative learning as a process of becoming aware of our unconscious selves and accepting them through reflection and internal dialogue. By understanding and accepting one's unconscious 'shadows' in relation to the outside world, an individual becomes more interdependent and experiences a "heightened sensitivity to life and people" (Lin & Cranton, 2005). Expanding this perspective, Dirkx (2001) described the role of symbols and images in fostering a deeper understanding of ourselves and our relationships with the world around us. Undertaking this view of transformative learning as holistic, emotional and spiritual development many educational programs encourage arts, literature, images, or films as tools for inner reflection and dialogue.

On the other hand, social critique perspective calls for social accountability and change through individual transformative learning. It moves beyond individual awareness about self and others towards making changes. It urges "constructivist epistemology to be tied to political action, thereby creating structures, systems, and institutions that equalize access to healthcare, education, and economic social mobility" (Gambrell, 2016, p. 101). This concept arose from Freire's (1970) concept of critical consciousness or conscientization

(*conscientização*), which he defined as ‘learning to perceive social, political, and economic contradictions, and to take action against the oppressive elements of reality’ (p.35). Freire (1970) promoted problem-based critical pedagogy that helps people develop the power to critically perceive the social norms, values and “come to see the world not as a static reality, but as a reality in process, in transformation” (p.83). He perceived that emancipatory learning and critical consciousness provide the learner with a voice and words, an ability to describe their experiences and the world, and critical lenses to question the status quo (Freire, 1970, p.88). Scholars coming from the social critique stance looks beyond understanding how learners experience perspective transformation as individuals towards empowering the learners to take actions and make changes in their communities. They call for education experience that challenges students’ understanding of social norms, power relations, and reproduction of economic, political, and social domination and promote students’ agency to be critical and oppose ideological forces (Brookfield, 2012; Gambrell, 2016). Brookfield (2012) noted that these changes are possible only when structures, systems, and institutions change. Therefore, he argued that a societal disorienting dilemma is needed in order to change culture, ideology, and reified forms of thought.

Mezirow (2009) noted that change in learner’s social context, the feeling of ‘otherness’, challenges in the new context, or other disorienting dilemmas can trigger critical reflection on learners’ pre-existing assumptions. Liu Farrar’s (2007) study on Chinese educationally channeled migrants in Japan reported that the ‘extreme hardship’ especially in the early student years— ‘the physical hardship on the jobs, the humiliation of being low status part-time workers, the knowledge about Japanese work ethics and the frustration with many social conflicts and cultural clashes’, helped the Chinese migrants develop important cultural assets and build social relationships despite the bitter memories (p.189). While many studies note challenges that international students face in Japan (e.g. Lee, 2017), a few discuss how such challenges fostered critical reflections to question their existing assumptions, the social norms as they try to overcome such challenges. Intervention courses to foster transformative learning and intercultural relationship have been introduced in some study abroad programs (Jackson, 2015). However, studies on international students in Japan from critical theory and transformative learning are still rare.

In Mezirow’s (1997) perspective transformation theory, critical reflection, role taking, dialogue, and action are important elements that lead to transformative learning. Expanding Freire’s ideas of praxis, Mezirow proposed two types of reflection: a critical reflection of assumptions (CRA) and critical reflection on self-assumptions (CRSA). Critical reflection of

assumptions occurs when individuals reflect on outside or external matters, the content and the process of making decisions. On the other hand, critical reflection on self-assumptions occurs when individuals reflect on own biases, values, beliefs, ideas of morality and ethics. Whereas CRA leads to a gradual transformation through accumulation or constellation of beliefs, concepts, judgments, and feelings that shape how we make an interpretation, CRSA leads to an epochal transformation, dramatic changes that challenge an individual's core identity, worldview, or very sense of who they are (Mezirow, 2009).

Daloz (2000) argued that four main conditions are important to support transformative learning. These are 1) the presence of others who embody difference, 2) reflective discourse regarding the differing assumptions of each, 3) a community of mentorship, 4) opportunities for committed action. Daloz (2000) also viewed transformative learning as part of a developmental movement of our lives. As a person enters the new developmental stage, the learner builds new meaning structures to make sense of their lives. In other words, the learner shifts their previous meaning structures with more appropriate ways to make meaning of new encounters as they grow but also as the context changes (Dirkx, 1998).

Glisczinski (2005) proposed a Transformative Learning Quadrant model drawing on Mezirow's perspective transformation by condensing Mezirow's 10 steps into four following Herbers's (1998) work (as cited in Glisczinski, 2005) that emphasized the foundational components of transformative learning. The four quadrants are 1) disorienting event or dilemma as a catalyst for challenging one's beliefs and values, 2) critical self-reflection that leads to 3) dialogue and to 4) action or reintegration process. These foundational four quadrants share similarities with Kolb's (2014) experiential learning cycle, which consists of cycles of concrete experiences, reflection, abstract conceptualization, and active experimentation.

Glisczinski (2005) utilized this model for his doctoral dissertation work and conducted a survey as well as follow up interviews from a sample of 135 teacher education students in their final year at one US university. The study found that while 73% of students reported disorienting experiences, 43% had engaged in critical reflection and only 35% of participants had taken an action on their newly developed perspectives (Glisczinski, 2005). In other words, while university curriculum challenges majority of students' assumptions, it still fell short of making students to critically reflect on those assumptions or prompting students to carry out discourses on their reflections, or helping students act on their learning.

TRANSFORMATIVE LEARNING QUADRANTS

MEZIROW (1970) AND HERBERS (1998)

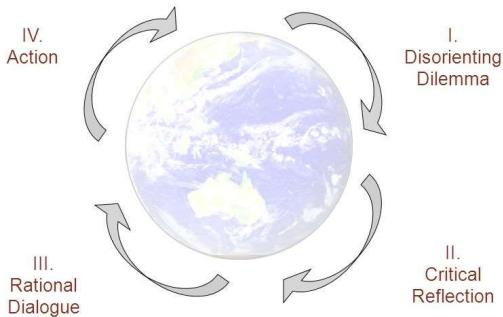


Figure 2-1 *Transformative learning quadrants* by Glisczinski (2005)

2.2. Human capital theory

Formally introduced in the 1950s by Theodore Schultz and Gary Becker, the Human Capital Theory (HCT) posits that a financial investment in education yields increased economic capability or higher income for educated individuals (Becker, 1975; Schultz, 1963; Tan, 2014). Underlying assumptions of many international scholarship programmes share the human capital theory rationales which scholars (Perna, 2014; Campbell, 2016; Campbell & Mawer, 2018) illustrated. Campbell & Mawer (2018) illustrated this shared rationale,

HCT aligns with the rationale of many international scholarship programmes' design: significant financial investment in international higher education will lead to post education economic activity, which spills over to generate returns within the wider community of the student's home country (p. 6).

For example, the Joint Japan/World Bank Graduate Scholarship Program described its program as, "scholarships for graduate studies to well-qualified mid-career professionals, who are then expected to apply and disseminate the newly acquired knowledge and skills in promoting the socio-economic development of their own and other developing countries" in their public statement (2008, p. 1).

According to the original human capital theory, individuals develop skills and knowledge through education and training and that improved skills and knowledge would have a positive effect on an individual's productivity and earning. The spillover effect of individual benefits contributes to the community where the individuals work and live (Becker, 1964; Campbell, 2016). It was a radical concept at the time that provided a different way to understand education and labor. Through HCT, education and labor could be analyzed

as a commodity, through economic supply and demand analysis (Klees, 2016). The theory assumes that there are a meritocracy and an equal opportunity for everyone to increase their wage and social position if they invest in education and develop the “right” type of skills and knowledge (Piketty, 2014). In addition, it is often criticized for its “assumption that individuals are rational and they will invest in education so long as the material benefits exceed or equal the marginal costs” (Tan, 2014; p. 420).

However, despite this focus on individual economic return and meritocracy, many scholars expanded the focus of the theory to broader external benefits including an improvement in an educated person’s health and nutrition behaviour (Schultz, 1981), improved quality of life (Becker, 1993), and enhanced social development of the individual’s community (McMahon, 1999). These societal benefits are often neglected in the discourses of human capital theory, partially due to the difficulty of quantification (Sweetland, 1996; Campbell, 2016) and because these benefits are viewed as the spillover effect or externalities.

McMahon (2009) noted that the modern Human Capital perspective is concerned not only with the economics of job markets and earnings but also to ‘living a life’. He argued that education contributes to the welfare of individuals and their families, as well as to the economy and the “community”. He called the contribution to the community as “community structural effect” defining “community” as the firm or household in which individuals works or lives. McMahon (1999) called these social benefits as the ‘externalities’ of human capital defining them as, "benefits realized by others in society that are not realized by those who do the investing in education, whether it be students, families, or researchers. These externalities can be either monetary or non-monetary" (McMahon, 2009, p. 184).

To explain these externalities, McMahon developed *Endogenous Development Model* and included the non-market benefits of education. Under this *Endogenous Development Model*, he listed eight sectors with public social benefits. Each sector consists of 2 to 4 subsector benefits or effects: Economic growth (measured by per capita growth and investment in physical capital), Population and health (measured by new population growth, Fertility, Longevity, Infant mortality), Democratization and human rights (Democratization, Human Rights, Political Stability), Reduction of poverty and inequality (Urban poverty, Rural poverty, Income inequality), the Environment (Forest and wildlife preservation, Air pollution, Water pollution), Crime and drug use (Homicide rate, Property crime, Drug use), Labor force participation (Female labour force participation, Percent of labour force in agriculture, Total labour force participation rate), Education rates (Male and Female

enrolment rates in Primary, Secondary, and Higher Education, Investment in education as a percent of GDP).

In other words, the indirect effects of higher education include 1) The effect of education on increased rates of investment in physical capital; 2) The effects of government support for education on increased rates of total saving; 3) The effects of education on fertility rates with respect to the average education level of females in the community, effects on infant mortality rates, the net effects of these on population growth rates; 4) The indirect effect of education via the rule of law, democratization, and political stability; 5) New knowledge via investment in R&D. These areas provide a useful framework to study the impact of international higher education and the areas in which learners and graduates contribute to the society beyond individual returns. While this study does not aim to quantify the impact of scholarship programs on home country, these areas of indirect social benefits of higher education in *Endogenous Development Model* provide a conceptual framework useful to understand alumni's contribution to the home country.

In her dissertation work, Anne Campbell used McMahon's *Endogenous Development Model* of HCT situating them within social and economic development. Using them as a heuristic framework for her study, she examined the perceived impact of scholarship programs to the social and economic development of the home country in two former Soviet countries—Georgia and Moldova (Campbell, 2016). Her study illustrated the ways in which alumni “give back” to the home country such as through employment and by staying in the home country. In addition, Campbell (2016) found that specific home country contexts shaped how alumni contributed. For example, the government's pathway for independence from the Soviet Union including the national revolution and political shifts influenced alumni's career opportunities and their choices which either promoted or discouraged alumni to stay in the country. Another contextual factor was the size, strength, and vitality of alumni networks in each country that determined how alumni “gave back”. Part of this study on Mongolian alumni's perceived contribution builds on Campbell (2016)'s study to further study the differences and similarities of Mongolian alumni's experiences of contribution to the home country by the scholarship program requirements.

2.3. Human Capability Approach

First introduced by Amartya Sen (1991), this approach views education as emancipatory and empowering with potentials to make it possible for human beings to lead

their own lives in ways they value. Rather than solely focusing on the productivity or economic gain, this approach mainly focuses on the freedom of individuals and the range of choices they have to make a decision and lead their lives. Sen (1991) wrote, “The evaluative focus of this 'capability approach' can be either on the *realized* functionings (what a person is actually able to do) or on the *capability set* of alternatives she has (her real opportunities)” (p. 75). Under this approach, the outcome of scholarship programs would be either what real opportunities and alternatives the learner gains or what actions the learner is actually able to take. Walker (2012) noted, “Capabilities are the potential to (...) be knowledgeable, to use one's knowledge in worthwhile ways, to be interculturally aware and sensitive, and so on. The question we ask of education is then: what are people actually able to do and be?” (p. 388).

While the Human Capital Theory focuses on the productivity of individuals, particularly their contribution to economic development, the human capabilities approach introduced and promoted by Sen (1991, 2000) and Nussbaum (2006) focuses on the ability, “the substantive freedom”, of people to “lead the lives they have reason to value and to enhance the real choices they have” (Sen, 2000, p. 293). Human capabilities approach “recognizes and underscores the importance of individual agency, both during scholarship (e.g., joining an advocacy group) and in how individuals apply their capabilities afterward (e.g., start a community organization)” (Campbell & Mawer, 2018, p. 8).

HCT emphasizes the relationship between the location of individuals and their contributions (that individuals contribute to the workplace and the community where they work and reside). On the other hand, human capabilities approach views individuals as having the freedom to decide where to live and work but they also bear responsibilities. Sen (2009) wrote,

Freedom to choose gives us the opportunity to decide what we should do, but with that opportunity comes the responsibility for what we do – to the extent that they are chosen actions. Since a capability is a power to do something, the accountability that emanates from that ability – that power – is part of the capability perspective. (p. 19).

Most programs that are based on HCT, thus, tend to require scholarship recipients to return to their home country through strict binding contracts (Campbell, 2018). On the other hand, programs that prioritize a human capabilities approach encourage participants “to explore new fields and topics, flexible to student's changing interests, emphasize personal choice in their post-scholarship activities. These programs have vague or flexible guidelines, but consistently send a message for scholars to maximize their potential impact regardless of

residency” (Campbell, 2018, p. 181). Rather than making strict contracts with grantees, these programs send subtle messages, provide programming support to foster their contribution to their communities.

Many philanthropic scholarship programs (e.g. Open Society Foundations) support human capabilities approach and invest in providing the grantees freedom to make decisions for their lives without imposing strict post-scholarship conditions. Campbell & Mawer (2018) drew the following example from the Open Society Foundations,

University-based education will empower these [scholarship grantees] to explore and develop intelligent and humane ideas generated by free and open inquiry, critical analysis, and a nuanced understanding of the complex challenges facing open societies (p. 7).

Without forcing alumni with program conditionality such as the requirements for alumni to work for certain organizations, programs rooted in human capabilities approach help the individuals “understand their place in society — and their ability to change it” (Campbell & Mawer, 2018, p. 9). However, it is often unclear whether scholarship programs intentionally draw on theories of change—whether HCT, the human capability approach or others. While it is necessary for programs to clarify their stance in order to measure the program outcomes, these theories can also be useful to understand how programs influence alumni’s choices and whether the program requirement enables learner’s contribution to the home country or not.

2.4. International Higher Education Scholarship Programs and National (Socioeconomic) Development for Low and Middle-Income Countries

This section explores existing literature on international higher education scholarships and their relationship with national development, specifically for developing countries. First, it presents the international scholarship programs as an emerging field of study including various definitions, scopes, varieties of scholarship programs, issues related to studying scholarship program outcomes. Second, it presents previous studies on students’ learning experience in the host country. Third, literature that reported positive relationship between international education and home country development is presented. Finally, the negative outcomes of international education to home country such as issues regarding brain drain are presented.

2.4.1. Overview of Scholarship Programs as a Field of Study

Definition and Typologies of International Scholarship Programs

The history of scholarship programs for international study dates back to the British colonial period in 1850s when governments, universities and individuals in the settler colonies established travelling scholarships to study in Britain not only to foster an imperial citizenship but also to provide the best graduates of settler universities with opportunities not available locally (Pietsch, 2011). In Meiji period (1868-1912), the Japanese government sent youths to Western countries to bring back knowledge and skills that would contribute to national development (Fry, 1984). After the World War II and during the Cold War era, both Western and Soviet governments supported scholarship programs aligned with their diplomatic and foreign policy goals. During the cold war era, international scholarship programs were utilized to counteract the ideological influence of the Communist Bloc in the Third World countries (Varghese, 2008). The educational and cultural exchange between the United States and the Soviet Union that started in 1958 is believed to have contributed to the erosion of the Soviet Union in 1989 (Spilimbergo, 2009). Russian intellectuals who studied in the US, their interactions in Western political, scientific, and academic circles helped foster gradual liberalization in the Soviet Union which contributed to the eventual collapse of the Soviet system (Atkinson, 2010). In the latter half of 20th century, “a new engagement with scholarships as a vehicle for overseas development assistance underpinned widespread investment by governments” such as in Netherlands, Germany, the UK, and Australia (Dassin et al., 2018).

Scholars (e.g. Balfour, 2016; Campbell, 2018; Kirkland, 2018; Loerke, 2018; Perna, 2014; or Mawer, 2014b) attempted to categorize international scholarship programs by their origins, aims, policies, and conditions. Martha Loerke (2018) proposed three overall categories of scholarship programs by their origins and aims: 1) programs originating after the World War II that viewed international exchange of scholars and students as a way to foster peace and cross-cultural understanding between nations such as the Fulbright Scholar Program (USA), the Commonwealth Scholarships and Fellowships (mainly UK), and the Deutsche Akademische Austauschdienst awards (DAAD, Germany); 2) programs that emphasized “capacity building and leadership development for newly emerging countries in the post- colonial and post-communist arenas” to support the politically transitioning societies and economies... [such as] the Joint Japan-World Bank Global Scholarship Program (JJ-WB GSP), the US Department of State’s Edmund S. Muskie and Freedom Support Act Graduate

Fellowships (Muskie/FSA), and the Chevening Awards of the British Foreign and Commonwealth Office; 3) programs that were influenced by the new concept of social change leadership and human development promoted by thinkers such as Amartya Sen (1999) and Martha Nussbaum (2011) aiming to “cultivate social change leaders and promote new visions of inclusion by giving voice to non-traditional profiles from marginalized communities” such as the Civil Society Leadership Awards (Open Society Foundations), the Rhodes Scholars, and the Gates-Cambridge Scholarships. While category 3 had explicit change agendas, category 2 has implicit change agendas under the development and reform goals as these programs expect multiplier effects generated by individual grantees (Loerke, 2018, p. 188).

While Loerke (2018) suggested an important category of international scholarship programs based on their origins, NORRAG (2011), Kirkland (2018), and Boeren (2018) attempted to develop general types of international scholarship programs based on their general aims. These scholars all viewed at programs sponsored by the host government or donor organizations. While they point to different characteristics of programs, their categories share similarities: 1) the diplomatic and economic interest of the host country, 2) development assistance for developing countries, 3) strengthening the host country’s higher education institutions. Table 2-1 illustrates NORRAG (2011), Kirkland (2018), and Boeren (2018)’s categories highlighting the similarities and the differences.

While these scholars attempted to illustrate the different objectives of scholarship programs, they all noted that programs can have a mixture of these aims. In other words, these categories are not mutually exclusive; for example, programs that are mainly in a host country’s national interest can also bring development benefits to the home country.

Table 2-1 *Categories of international scholarship programs sponsored by host countries based on program objectives*

Category Sources	Host country’s national interest dominated	Assistance for developing countries	Development of Higher education institutions in the host country
Boeren (2018)	<ul style="list-style-type: none"> - Diplomatic - Economic interests of host country 	<ul style="list-style-type: none"> - Human resource development for home countries 	<ul style="list-style-type: none"> - Quality and attractiveness of academic institutions in bilateral donor countries
Kirkland (2018)	<u>1. Host Country’s Interest Narrowly Defined:</u>	<u>1. Individually Focused:</u> <ul style="list-style-type: none"> - Prioritize candidates who are under-represented in 	<ul style="list-style-type: none"> - Enhancing the reputation of national higher education systems.

	<ul style="list-style-type: none"> - Aim to fill particular skills or other labor market shortages in the host country. - Recipients are encouraged (or even obliged) to remain in host country upon completion of the award. <p><u>2. Host Country's Interest Broadly Defined:</u> - less direct or measurable ways, for example, winning long-term friends for public diplomacy purposes</p>	<p>some way (such as refugees).</p> <ul style="list-style-type: none"> - The main aim is to help the individual, although by doing so there may be wider development benefits, for example, the emergence of role models. <p><u>2. Society Focused:</u></p> <ul style="list-style-type: none"> - Prioritize candidates who appear most likely to address development problems in their respective countries, regardless of personal background. - Recipients may be encouraged or required to return home (or work on relevant projects) following completion 	<ul style="list-style-type: none"> - One of the broadly defined interests for the home country
NORRAG (2011)	<ol style="list-style-type: none"> 1. Public diplomacy and influence 2. Develop cooperation and exchanges in fields of politics, economy, culture, education, and trade 	<ul style="list-style-type: none"> - Human resource development 	<ul style="list-style-type: none"> - Enhance the nation as a centre of excellence in higher education;

On the other hand, governments of the home countries also sponsor domestic students for outward mobility to study at foreign higher education institutions such as Japan during the Meiji period. The typologies of such national scholarship programs developed by Perna et al. (2014) and British Council & DAAD (2014) are useful to understand the rationales of domestic governments for sponsoring students to study abroad.

Perna et al. (2014) examined scholarship programs sponsored by 196 national and federal governments and developed the following four main types: 1) development of basic skills (majority supported undergraduate programs such as Saudi Arabia's King Abdullah Scholarship, and Turkey's Government Scholarship); 2) development of advanced knowledge in developing nations (mostly supported graduate degree programs while all required obligatory return to home country); 3) development of advanced knowledge in developed nations (mostly developed or democratic countries that supported graduate degree education; and only half of these programs required alumni return to home country after program completion); 4) promotion of short-term study abroad (all programs (91%) support short-term exchange rather than degree attainment such as Brazil's Scientific Mobility program,

Germany's DAAD Scholarship). The authors noted that country's economic situation, political context, higher education policy and other home country contexts influence the governments to decide what type of programs, areas of study, destination countries or universities to send their students to and what selection criteria or post-program conditionalities to assign. Perna et al. (2014) found that the majority of programs funded by the national governments aimed to develop human capital with advanced knowledge, required the recipients to return to home country after program completion, and supported degree attainment at graduate school level (Perna et al., 2014).

British Council & DAAD (2014) further examined international scholarship programs of 11 countries (Brazil, China, Egypt, India, Indonesia, Kazakhstan, Mexico, Pakistan, Russia, Saudi Arabia, and Vietnam) to understand the overall rationales for sponsoring programs. The comparative analysis showed that most programs sponsored by the national governments for outward mobility are based on human capital rationale—more education leads to prosperity—to prepare human resources in key fields and promote national development despite their differences in process, scope of funding, program level, type of universities to study, areas of study and so on.

While the individual and institutional motivations for international higher education mobility vary, the national government motivations for outward mobility are grounded in developing the country in target areas, improving their tertiary schools and higher education institutions, and establishing interpersonal and international connections between institutions. Governments, especially in developing countries, seek for foreign universities when the domestic universities are perceived to lack sufficient capacity to train experts.

Table 2-2 *Main rationales of national governments to sponsor students to study abroad*

Rationale for scholarships	Purpose
National development	Advancements in the home country's education, health, society, and economics through knowledge acquisition and improved understanding of different people, places, and languages
Human capacity development in key fields	Knowledge and skill areas that are not very available in the home country Note: the majority of programs in 11 countries target science, technology, engineering and mathematics (STEM) followed by business, management, economics, and agriculture
Organizational reform and performance enhancement	As part of tertiary level organizational reform e.g. Indonesia's SPIRIT program to prepare university professionals

Interpersonal and international connections	<ul style="list-style-type: none"> - Establish long-term collaboration between HEIs - Allow alumni to be the reforming agent at their home HEIs - Part of internationalization policy for HEIs
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Based on: *British Council & DAAD (2014, p.52-53)*

National governments have a mixture of these rationales. For example, the Chinese government initiatives to send students abroad mainly at the graduate level are tightly linked to their higher education reform policy—to gain access to top international higher education technology and expertise in order to create world-class universities—as part of China’s overall national development plan (Pan, 2011). Similarly, Brazil and Kazakhstan see education from top world institutions as a tool for economic progress through building international connections (British Council & DAAD, 2014). Saudi Arabia’s King Abdullah Scholarship Program promotes networking and professional development by funding grantees to attend academic conferences. Such international networks are expected to serve as tools to internationalize higher education institutions in the home country.

Evaluations of international scholarship programs and issues of methodologies

Due to the variety of scholarship programs and the complexity of international education experience, the evaluation and assessment of these programs started appearing more widely only from 2000s (Mawer, 2017; British Council & DAAD, 2014; Enders & Kottman, 2013; Hansen et al., 2005; Webb, 2009) despite their long history. In the 1950s, studies on US government scholarships such as Fulbright and Humphrey graduates were conducted (Schwantes, 1955; MacGregor, 1957; Dudden & Dynes, 1987; Uyeki, 1993) that mostly focused on sojourners’ satisfaction. For example, MacGregor (1957) presented narratives of Fulbright research scholars and lecturers who went to Egypt, India, and Iraq while Rose (1976) studied several hundred American and foreign Fulbright-Hayes scholars who had gone to or from East Asia and the Pacific. Uyeki (1997) conducted an extensive study of Japanese and American Fulbright alumni (who participated in international exchange in the time period of 1949-1991) that included not only the satisfaction but also their social and education backgrounds compared to those who did not participate in the program, alumni perceptions of US or Japan compared to comparison groups—the colleagues of Fulbright alumni in their home countries. The study found that the majority of alumni were males (86.3% among Japanese Fulbright alumni) who predominantly worked in private and government sector while the majority of female Fulbrighters had worked in the academia. Although such studies

provide important information on early scholarship program schemes, until the end of the 1980s there was no clear approach to program evaluation among major donors (Strömbom, 1989).

Up until recently, the general focus of program evaluations has been mostly on a number of program recipients, program completion rate, recipients' satisfaction with the scholarship programs, or career trajectories right after program completion. Most programs' evaluations were conducted for internal purposes and lacked public access (Campbell, 2016). Consequently, evaluation reports produced by the program administrators tend to be biased, based on anecdotal and superficial results and mostly positive-oriented about long-term impacts as they tend to select or feature success stories (Mawer, 2014).

In her Ph.D. dissertation, Campbell (2016) presented a logic model common in scholarship programs offered in low- or middle-income countries, often viewed as an effective tool to foster social and economic development (Figure 2.2). The model shows that international higher education scholarship programs does not refer only to the period when students study in the host country. In fact, it involves 4-5 main cycles from the time the program is developed to the anticipated impact or the ultimate goal.

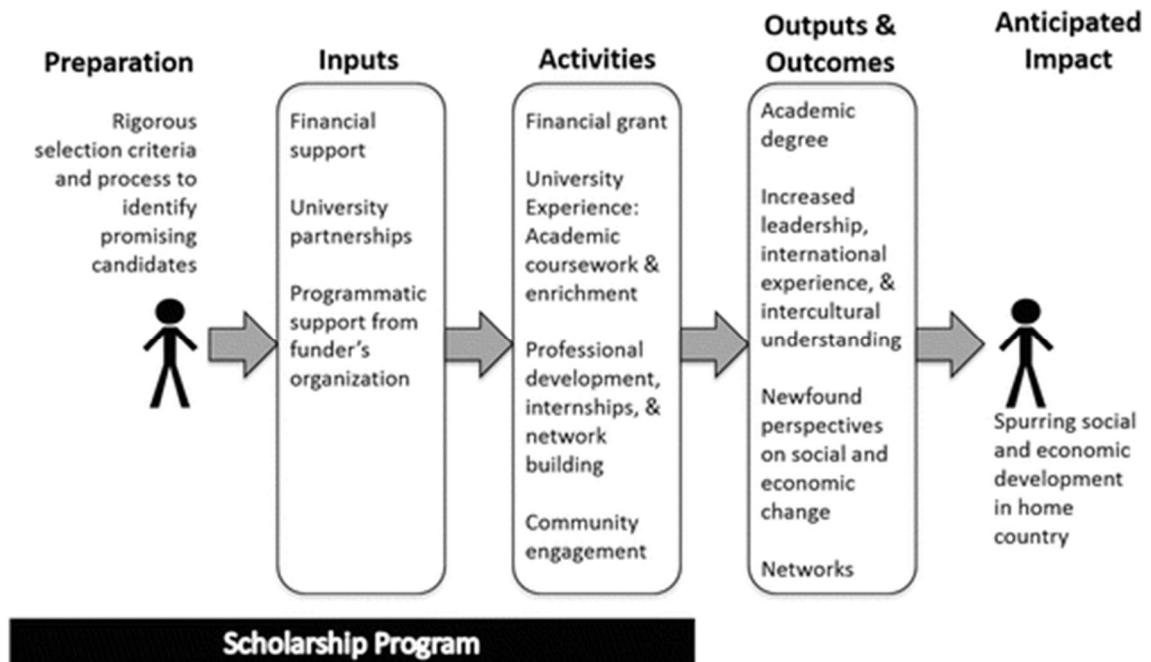


Figure 2-2 *Logic Model of International Scholarship Programs That Aim to Promote Social and Economic Change in Low- and Middle-Income Countries (Campbell, 2016)*

First of all, “preparation period” involves program recruiting (distributing information among prospective applicants), application process (candidates self-select based on the program descriptions and eligibility criteria, and rigorous selection process), forming selection committees, reviewing applications, tests (language or cognitive), and identifying candidates that fit the program goals. Second, “inputs” for the scholars, are financial support, agreement with the host institution (tuition waiver, programming, accommodation etc.), and programmatic support (orientation, networking events, conferences). Third, “activities” refer to not only the classroom learning but also participation in academic enrichment opportunities” (Campbell, 2016, p. 43). The fourth part, “outputs and outcomes”, includes academic degrees, development of various competencies and skills necessary for students’ professional field. Finally, the fifth, anticipated impact, is the end goal of most programs—long-term social impact through alumni’s works and projects. The distinction made by Creed et al., (2012) is helpful to understand what outputs and effect usually refer to in international scholarship programs.

Outputs are defined as the specific products or services which an activity is expected to produce from its inputs. *Effects* are then the outcome of the use of the project's outputs while the impact is the outcome of project effects and an expression of the results produced, usually in terms of broad and long-term social aims (p. 4).

The program completion rate or the number of graduates is one indicator of outputs while the improved career track and increased research outcome after program completion can be indicators of an effect. The impact, on the other hand, is the outcome of graduates’ jobs, publications, advocacy works and so on. Therefore, developing common indicators for social impacts is hard and complicated requiring a long-term tracking of graduates as well as a longitudinal research conducted case by case considering different social, cultural, or economic contexts.

Mawer (2017) noted the main challenges in evaluation studies that aim to understand the long-term impact of programs are 1) the relationship between program aim and outcomes is often vague—unclear aims of programs; program policy change over the years; and lack of baseline data to compare any progress, and 2) difficulties with attribution and contribution, i.e., difficulty to distinguish the effects of programs from other social factors in long term after program completion. Although programs could use counterfactual argument, in other words, constructing a comparison group, it is highly difficult to create a comparison group to scholarship students because these students are not randomly selected. Each program has its own selection criteria and the recipients already have extensive years of education and social

conditioning that compel them to consider an international scholarship (Martel, 2018). Chesterfield and Dant (2013) were able to conduct a counterfactual study by creating a control group of semi-finalists of USAID scholarship program, nevertheless, had a lot of difficulties to locate and find the non-selected applicants. Uyeki (1993) also established a comparison group of non-scholarship professionals in their study of American and Japanese Fulbright alumni to compare alumni's perception of the host country compared to the non-Fulbright colleagues. The Fulbright alumni were asked to hand in a survey invitation to their professional colleagues creating a comparison group of respondents who did not study abroad. However, working in similar positions do not necessarily mean that their motivation, personality, or family upbringings are similar. The findings from these studies are presented later in the next section 2.4.3 and 2.4.4. on scholarship programs and their relationship with national development.

The outcome of scholarship programs depends on many factors—"a program goal, design, number of participants, the type of knowledge and skills recipients acquired, and how that collective experiences are applied and absorbed into a country's workforce and infrastructure" (British Council & DAAD, 2014; p. 58). Given this challenge, most programs collect basic quantitative information that is easy to track such as a number of awards, degrees, fields of study, or host countries; however, the qualitative impacts (how international study influences the recipients, the organizations and the nation) are often left behind.

Although a long-time lapse after scholarship program completion could allow alumni to apply their skills and knowledge, a long-term retrospective evaluation is not common in this field. Creed, Perraton, & Waage, (2012) pointed out that due to the financial burden and the question of causality—whether or not alumni's actions after a decade can be caused by the scholarship, the long-term evaluation study has not been common. However, in recent years programs started conducting such evaluations. For example, Schlumberger Foundation and MasterCard Foundation conducted a 10-year retrospective evaluation while Commonwealth scholarships in the UK and the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) conducted a retrospective survey study of graduates who studied in Japan during 1983-2009. Both UK and MEXT studies relied on surveys; however, both programs did not have full contacts of all alumni. Commonwealth scholarship programs did not employ any tracking until 2000 except occasional surveys (Mawer et al., 2016). Similarly, while Japanese government scholarship was granted to 188, 506 individuals during 1983-2009 (with an average of 7,000 grantees per year), only 11,804 individuals or around

6% of scholarship grantees contact information was available at JASSO at the time of evaluation study (MEXT, 2011).

This section presented how previous studies on international scholarship programs were conducted, common instruments utilized and main challenges that hinder evaluation studies. Efficient collection of information regarding the program recipients and the long-term tracking of alumni through ongoing communications, events, networks are vital. In addition, in order to create comparison groups, applicants who also applied for the scholarship programs, who passed the first application review process but could not get the scholarship could be recruited. While these measures are costly, they would help build more valid, credible information regarding program impacts.

2.4.2. Literature on international students' learning experience in the host country

Previous scholarly works on international students' learning experience in foreign countries is rich; however, few studies exist that specifically discuss scholarship students' learning experience. Scholars have studied sojourners (mostly defined as non-degree exchange students) and degree-seeking international students' learning experience from a variety of angles such as identity formation, intercultural competency, global citizenship, transformative learning or development of new perspectives.

For example, intercultural competence is an area that is highly studied. Deardorff (2006) defined intercultural competence as "the ability to develop targeted knowledge, skills and attitudes that lead to visible behavior and communication that are both effective and appropriate in intercultural interactions". Scholars use various instruments and methodologies to "measure" the level of students' intercultural competence. Fantini & Tirmizi (2006) reported that there are over 80 instruments to assess intercultural competence. Despite the high number of alternatives and lack of standardized methods for assessment, most studies conclude that studying abroad has a significant effect on the development of intercultural competence (Vande Berg et al., 2012).

Global citizenship (or sometimes called as global engagement), is another angle that explores individual level outcome more broadly including students' identity, intercultural competency as well as global outlook, civic engagement, social responsibility, philanthropy, or global awareness (Baxter, 2018). These studies that focus on global citizenship generally view that students are exposed to diversity through international education abroad and as students deepen their sense of self- and global awareness, they are better equipped to work toward change on a local and global scale (Baxter, 2018). SAGE study by Paige, Fry,

Stallman, Josić, & Jon (2009) that involved 6,391 U.S. alumni from 22 programs from 1950-2007 concluded that study abroad experience has a positive impact on global engagement of alumni in the long-term. The defined global engagement in five domains such as civic engagement, knowledge production, philanthropy, in terms of volunteer time and monetary donations, social entrepreneurship, and voluntary simplicity.

Similarly, efforts to understand students' experience from transformative learning perspective concur that students expand their cultural and traditional understandings, beliefs, and perspectives to view themselves and the world (Cranton & Taylor, 2012). While scholarship students' international experience has not been studied from transformative learning lenses, a number of studies applied TL theories to understand international students' learning process in study abroad or international education programs (Coghlan & Gooch, 2011; Kumi-Yeboah, 2014; Trilokekar & Kukar, 2011; Mwebi & Brigham, 2009; Smith et al., 2014), and to assess the outcome of international education in general (e.g. Le & Raven, 2015; Stone, 2014). Alex Kumi-Yeboah (2014) focused on factors that led to transformative learning among international students from Africa studying in the US, while Garrett Stone (2014) aimed to find a relationship between transformative learning processes and study abroad outcomes through linear regression models. Both studies were quantitative and drew on King's (2009) Learning Activity Survey that has been validated through a series of interviews, pilot studies, and a panel review. Kumi-Yeboah (2014) found that classroom activities, faculty support, and learning a new language were important tools for transformative learning. In this study, the international students from Africa noted that the student-centered teaching approach in the US, in contrast to teacher-centered instruction type in the home country, team-based class projects, the importance placed on participation in discussion, and the freedom given to offer personal opinions helped them expand their perspectives.

Many studies noted that the challenges associated with living and learning in a foreign country, in a different academic environment and unfamiliar socio-cultural norms have potentials to foster growth and perspective transformation especially when challenges are coupled with appropriate support and intentional activities to facilitate self-reflection. Trilokekar & Kukar (2011) reported from their study on American pre-service teacher candidates who participated in the international exchange, 'being an outsider in their host society and being away from home enabled more risk-taking behavior, an opportunity to experience a new or different identity' (p.1146). Sims & Nishida (2018) found that short-term study abroad experience in Japan had influenced the Australian pre-service early education

pre-teacher students to challenge their existing understanding of good quality and safe early education provisions—e.g. whether the quality provisions in Australia rather limit children’s growth due to constant monitoring.

The literature on international students in Japan often discusses challenging experiences (e.g. Lee, 2017), adjustment and adaptation processes (e.g. Simic-Yamashita & Tanaka, 2010, Ikeguchi, 2012), and areas of satisfaction (Iwao & Hagiwara, 1987) in their experiences. However, few discuss intentional engagement and support to facilitate growth. The challenges that students faced vary from financial to psychological, emotional and other adjustment and communication challenges. Simic-Yamashita & Tanaka (2010) reported that international students from different regions and cultural background had a different level of adjustment in Japan due to their familiarity/unfamiliarity of Japanese culture, the ease in navigating the system as well as the perceived racial hierarchy in Japan. They reported that students from Africa and Middle-East had the least psychological and sociocultural adaptation in Japan while East Asian students (Chinese, Korean) mostly adapted better. On the other hand, European students in this study reported the highest interpersonal adaptation. Hsiao-Ying (1995) also indicated that foreign residents and international students in Japan had a very different psychological adjustment. The author interpreted this finding to be representative of the social and racial hierarchy in Japan regarding their treatment of foreign students; however, Hsiao-Ying (1995) did not further develop this argument.

Other studies on international students in Japan have discussed the difficulties in making friends with Japanese, or feeling accepted in Japan’s society (Ikeguchi, 2012, p. 176). Tanaka et al. (1994, 1997) noted that international students frequently interact with other international students more than Japanese students (p. 67). This tendency is common across programs even in the US as international students often prefer friends who are from the same country or region; however, interaction with local students increase students level of adjustment and satisfaction (Zhao, Kuh, & Carini, 2005). As it is natural for students to look for those who share similar beliefs and values, academic institutions need to intentionally structure programs to improve interactions and communications among international and local students.

Murphy-Shigematsu’s (2002a) study on Korean students in Japan noted that while some students became ethnocentric, developing negative perspectives about Japan and Japanese people while developing nationalistic perspectives as Korean, other students viewed their experience with more critical lenses. “Other students learn to develop a new and more open perspective, looking at Japanese and Koreans objectively without prejudice. Although

they are critical of Japanese they also begin to look critically at their relations with fellow Koreans" (Murphy-Shigematsu, 2002a, p. 81).

Murphy-Shigematsu (2002b) also noted that international students, especially those who are used to direct communication style, struggled to understand their professors' subtle messages or nonverbal communications.

Students who come from cultures where direct communication is valued find it hard to know how the professor judges their research when they receive little feedback.

They may misinterpret the professor's lack of negative comments as an indication that their research is positively evaluated, failing to catch subtle messages or nonverbal communications from the professor. Professors, on the other hand, often say that they have made themselves clear to the student (Murphy-Shigematsu, 2002b, p. 22).

Efficient communication and advice from professors are important also for students' satisfaction with their experience. Tamaoka, Ninomiya, & Nakaya (2003) found that academic success was the main goal for her participants, international graduate students in Japan. Earlier studies often noted the mismatch between professors' and the students' research interest playing a negative role in students' academic success. Murphy-Shigematsu (2002a) noted that many MEXT scholarship students arrived in Japan with little understanding of the university enrollment system, the exams they had to take in order to enroll in degree programs, as well as whether it was possible or not to conduct the research they are interested in at their specific laboratories. She wrote, "...students thought they could find an advisor in a certain area or that they can study certain fields but found out that they could not only after arrival" (p. 20-21).

In addition, the duration of time in "other" culture has a different effect especially on changes evident. Generally, it is assumed that the longer the time spent abroad the more lasting will be the impact. For example, Dwyer (2004) showed that long-term study abroad (a year or more) had a more significant impact on students that can last a lifetime such as career change, development of greater intercultural skills, acquisition of another language, and diverse social networks. On the other hand, several studies noted that the longer international students stayed in Japan, the less satisfied they became. Ikeguchi (2012) concluded that Chinese students who lived more than two years had more negative socio-psychological adjustment compared to those who spent less time in Japan. Similarly, early studies such as by Iwao & Hagiwara (1991) noted that Korean students who spent more than one year in Japan are less likely to feel Japanese people as kind, unprejudiced, warm, or easy to get along

with (Murphy-Shigematsu, 2002b, p. 75). In Lee's (2017) ethnographic study of international students in Japan, participants in a Japanese language school also reported perceived discrimination in finding housing, jobs, or struggling with language, or overcoming financial difficulties.

The above studies, however, did not discuss in depth about whether the research participants reflected on their challenging experiences and how their experience shaped their perceptions of self and others. The literature on sojourners' learning experience report that students could develop more ethnocentric perspectives and become less willing to interact with those from other ethnic, cultural, language background, thus, losing the opportunity to develop intercultural understanding and communication skills (Vande-Berg, 2007; Jackson, 2015). In addition to the exposure to a new culture and pedagogy, literature on intercultural competence and transformative learning often emphasize an intentional and regularly occurring reflection facilitated by interculturally competent mentors (e.g. Jackson, 2015). Extra- or co-curricular, service-learning or community service activities connected with curricular activities including reflection and discussion are other important tools to foster growth, overcome academic and social obstacles, and use the challenges to expand learners' assumptions.

In other words, not all learning is transformative. Foronda and Belknap (2012) identified egocentrism/emotional disconnect, perceived powerlessness/being overwhelmed, and a vacation mindset as the main factors that hinder transformative learning. Similarly, Charaniya (2012) noted that lack of challenging experiences, strong individual/national identity, and perceived powerlessness play out as obstacles for transformative learning. In addition, students' intellectual development stage plays an important factor to make meaning of their experience. Merriam (2004) noted that "mature cognitive development is foundational to engaging in critical reflection and rational discourse necessary for transformational learning" (p.65). Similarly, Mezirow (1991) also noted, "the transformations likely to produce developmentally advanced meaning perspectives usually appear to occur after the age of thirty" (p. 193).

Scholarship program students and their experiences

Evaluation studies on scholarship programs report capacity development, theoretical knowledge, and methodological competence, intercultural competency, networks, soft skills, and new perspectives on governance and society as individual outcomes. For example,

Indonesian alumni of Australian Development Scholarships universities reported high development of soft skills and intercultural competence as a result of their Masters and Ph.D. study that include problem-solving skills and critical thinking (Chalid, 2014).

One of the few qualitative studies that explored scholarship students' experience in host country, Baxter's (2014) ethnographic study on Rwandan undergraduate students studying in the US under the Rwandan Presidential Scholarship Program found that the expectations associated with their scholarship and the US education did not align with students' lived experiences in the US. The national government expected the students to return and contribute to the home country, the families of these students expected students to excel in their personal lives, but students faced a dilemma in their decisions to return to home country or further gain more experience and education in the US. While these students were privileged to receive the prestigious scholarship from their national government, they felt a high burden to meet the expectations of their family, friends, and home country.

Another ethnographic study by Dant (2010) presented that Humphrey fellowship program alumni from African countries (to the US) viewed that the exposure and participation in grassroots movements, democratic forms of governance, and civil society in the US during their one-year long fellowship inspired them to take leadership roles in their home countries and motivated them to make changes in their community. In a retrospective study by Marsh et al. (2016) African alumni in the MasterCard program described the importance of their involvement in social and political works through volunteer works and advocacy organizations. These experiences helped them expand their understanding of social injustice and fostered participants' civic and social engagement after graduation. Service learning and involvement in community organizations are often mentioned to be motivational for alumni to become engaged in their own communities after return.

A survey study by Dong & Chapman (2008) studied the satisfaction of international students in China who received Chinese government scholarships. The three main factors for satisfaction were 1) the frequency of interactions with faculty, 2) the cultural and intellectual engagement of the recipient, and 3) the personal efforts invested in the study experience (Dong & Chapman, 2008). The study by Makundi, Huyse, Develtere, Mongula, & Rutashobya (2017) found that the lack of Chinese language knowledge and little understanding from the donor country and the host institution regarding students' home country context posed challenges for students to contribute to the home country. Although the scholarship program aims to develop economic partnership and cooperation, it was difficult for students to pursue trading and other entrepreneurial activities.

In general, evaluation studies do not usually explore the learning process or how students developed any new perspectives and skills (Mawer, 2018, p. 261). Scholarship programs rely on host universities to develop these skills through their academic programs, engagement activities, and other services. Baxter (2018) highlighted two main assumptions in scholarship programs regarding students' learning experience, 1) skills-transfer assumptions that presume students develop locally relevant skills from international education abroad that are not available in home country; 2) guaranteed to learn assumption that supposes students automatically develop skills without intentional programs or support (p. 106-108). However, scholars agree that mere exposure to diversity or different culture does not develop any of the originally intended learning outcomes—whether it is the development of intercultural competency, global citizenship, or development of personal agency (e.g. Deardorff, 2006). Similarly, facing challenges alone does not bring growth or transformation. International education scholars have been increasingly calling for intentional research-based educational support to foster intercultural relationships for sojourners (Engle & Engle, 2012).

Baxter (2018) and Dassin (2018b) emphasized the importance of collaboration between host university and scholarship programs in order to offer more tailored academic programs and activities that would develop students' skills that meet the scholarship program aims. Some programs already offer such tailored programs. For example, both IFP Ford Foundation and ATLAS programs in the US offer programming to develop target students' leadership and other soft skills such as critical thinking, international communication, research technique, and managerial skills. Australian government scholarship started offering on-award advising service for their grantees in order to increase their satisfaction with their experience in Australia (Kent, 2018).

Dassin (2018) emphasized the importance of different on-award enhancement throughout the scholarship period from the selection to study period to post-program. The type of enhancement activities could vary depending on scholarship program goals. Dassin wrote,

...the most practical way to design enhancements is to consider the aims and objectives of each stage in the scholarship cycle. The scholarship cycle does not begin with the individual's study program. Rather, the cycle begins with the selection process, moves through academic preparation, placement and pre-departure activities, encompasses the actual study period, and then concludes with the transition to post-study and alumni activities. (Dassin, 2018b, p. 5).

This section presented scholarly works related to international students' learning experience in the host country with a special focus on transformative learning, international students in Japan, and scholarship program students in general. The next section moves on towards the outcome of scholarship program.

2.4.3. Positive Impact of International Education to Home Country Development

The assumption implicit in many scholarship programs, especially those funded from Official Development Assistance as well as international organizations such as UN, is that international education has a positive impact on home country development. This section presents studies that reported a positive impact.

Previous literature reports a positive impact of international higher education exchange at *micro*, *meso*, and *macro* levels (Mawer, 2018). The *micro* level benefits include individual benefits such as career development, increase in earnings, enhancement of personal and professional networks, development of intercultural communication skills, or analytical and critical thinking. The *meso* level benefits include organizational level impacts including institutional capacity development through increased productivity of employees. The *macro* level includes socio-economic, governance, and political level impacts to home country (Mawer, 2018).

While individual benefits are well documented, the institutional and social impacts are less explored. These few studies generally investigated individuals' career positions after program assuming if alumni are in leadership positions or in public service sectors, they have a higher likelihood of contributing to their countries. The retrospective tracer study of MEXT scholarship alumni (MEXT, 2011) that involved 4,691 alumni who studied in Japan during 1983-2009 period reported that 76.8% of participants "expanded their horizons", 73.7% "conducted research at a high level" in Japan. As for post-program benefits, 90% of respondents viewed that their experience "has been useful in [their] jobs", 85% viewed that the personal connection from Japan was useful, 83% used what they learned in class. While these figures were similarly distributed across different fields of study, regions of origin, the number of East Asian alumni reporting positive individual benefits were higher (MEXT, 2011). MEXT alumni in East Asia were mostly in leadership positions with many in HEIs as deans or faculties compared to the alumni in American, European or African regions.

Nearly all participants in an evaluation of the ADB's Japan Scholarship Program (JSP) felt that the knowledge and skills gained through their studies were relevant and useful in their organization (Asian Development Bank, 2007). 77% of DAAD scholarship holders reported a

close match between the content of their academic studies and their current occupation, compared to only 63% of self-paying students that undertook the same courses (DAAD, 2013).

On the other hand, MEXT survey found that 57% of respondents viewed that their earnings increased due to their experience and 30% was able to set up business building on their experience in Japan (MEXT, 2011). Joint Japan/World Bank scholarship program evaluation by World Bank Institute (2008) noted that salary gains were the least frequently experienced professional impact because many scholarship recipients return to public sector institutions with inflexible salary progression.

Sato (2005) analyzed the impact of Thai alumni who studied in the US (US group) and Japan for at least one year (Japan group) during the period of 1954-2001 as well as graduates from domestic universities as a control group. While US group reported higher satisfaction in terms of how their study abroad experience influenced their professions the Japan group were more likely to report that they introduced Japanese working styles in their workplaces and utilized personal connections. She found that alumni of both groups had better career perspectives after coming back than before study abroad with 29.4% of alumni from Japan group were reinstated in their former posts, 44.7% found new jobs and 18.8% fall into other categories such as working in family companies or having started their own businesses.

In 2015, Yokota and colleagues (2016) conducted a comprehensive survey of Japanese citizens with study abroad experience regarding their long-term impact. The study compared Japanese with three-month or longer study abroad experience after graduating from senior high school in Japan with those who did not. In addition to personal benefits such as intercultural skills, language knowledge, and other abilities, those who studied abroad had higher income and better job positions than those who did not. The difference was higher for those who obtained Master's or Ph.D. degree abroad across different areas of study, had a higher income than those who studied in the home country for Masters and Ph.D. degree. In addition, those who studied abroad reported greater religious tolerance, greater awareness of global issues such as environment and poverty issues.

Long-term tracer study on Commonwealth scholarship alumni found differences in alumni impact to home country by regions of origin and program level (Mawer et al., 2016). Sub-Saharan African citizenship was associated with a higher likelihood of reporting socioeconomic impact while the opposite was true of North American and Australasian citizenships. As for program levels, doctoral degree graduates were more likely to report impact than those who studied for Master's degree regardless of their origins. Furthermore,

Mawer et al., (2016) identified that the main channels of contribution to socioeconomic development of home country and government policy-making for their alumni were the production of analytic research; teaching and training; design, invention and development; implementation and coordination; policy development and technical assistance; advocacy; and publication and dissemination (Mawer et al., 2016).

Several studies report on intentional critical mass at the institutional level in order to foster institutional capacity, especially in public service and higher education sector. In order to maximize the effect of scholarship programs, these programs place alumni at certain institutions that they aim to strengthen. The World Bank Institute (2007) noted that "...the [Joint Japan/World Bank Scholarship Program] has created clusters of alumni who return home to work in the same institutions, thus helping to build a critical mass of well-educated staff and managers who can bring about institutional reform" (p. 14). Similarly, the College of Basic Sciences at the University of Nairobi has a high concentration of DAAD alumni as strategic capacity development programs (DAAD, 2013).

A critical mass of alumni within geographical spaces is reported to influence the socio-economic development. In an early study of the long-term impact of study abroad to the economic and political development of home countries, Fry (1984) found positive relationships between the number of people with international higher education experience and the economic and political development based on data from the 1970s. As one of his independent variables, Fry included a number of people who studied in Germany and Japan—the economic powers in the 1970s. He asserted that the empirical data on 80 developing countries as well as a qualitative case study on Thailand showed that the "heavy investments supporting study abroad for individuals from developing nations" positively correlates with economic success that "strongly suggest that such investments have been well justified" (p. 220).

Wilson (2015) has argued that scholarship programs have two main pathways to yielding broader impacts. The first is, "elite multiplier" referring to potential impact elite individuals can make within their capacities when they study abroad and return to the same or higher positions (elected official or senior administrator). The second type is "catalytic multiplier" referring to those who "exert a disproportionate influence on public opinion and the actions of others (such as teachers, journalists, or through public advocacy)". However, these discussions are at a theoretical level and only few empirical studies investigated the long-term impact of the international scholarship programs due to methodological and contextual challenges.

Campbell (2017) noted, “despite [the] recognition of higher education scholarships as tools for development, little scholarly research exists about what happens to scholarship program participants following their overseas studies” (p.1). In her qualitative study that explored the home country context that supported or hindered alumni’s contribution to their community, Campbell (2017) found that alumni of US government scholarships from Georgia and Moldova—former Soviet countries—perceived that their greatest contribution to their countries of origin is through their professional activities. Her finding emphasized the role of new, government-led initiatives for social and economic development, embedded in policy, in supporting alumni to “give back”. Similarly, earlier studies such as an article by Vanichakorn (2006) emphasized the importance of strategic support for returnees in their job placements and in their collaborated endeavors. Vanichakorn (2006) reported that the Thai returnees, most of whom were teacher education students, faced challenges in applying their knowledge and skills in Thailand although the participants gained important knowledge and skills from international higher education abroad. While some returnees reported a mismatch between their knowledge acquired abroad and the home country context, others discussed the lack of facilities in the home country to fully utilize their newly acquired pedagogical approaches.

Perna, Orosz, and Jumakulov (2015) noted that home country’s historical, political, economic, cultural, educational, and demographic contexts shape the ways in which alumni contribute to the socioeconomic development of the home country. In their qualitative study of Bolashak—government-sponsored international scholarship program of Kazakhstan—they found that alumni who often had graduated from top universities in the West with graduate degrees had difficulties finding jobs after return (before the employment support policies were implemented). Although Bolashak alumni had a high return rate due to the requirement to work for five years after graduation, many were unemployed or self-employed for at least first few months to years. Alumni perceived that they had high expectations for increased salary, comfortable working environment, but had difficulties to readjust to the local work culture. Another interesting finding that Perna and colleagues (2015) noted was that alumni who worked in an environment where very few other employees have international educational experience had difficulties in attempting to apply their knowledge in practice—feeling alienated and not being fully understood or appreciated—often left the work.

Few other studies focused on the role of international education in influencing social justice, democracy, and public diplomacy (Atkinson, 2011; Dassin, 2009; Spilimbergo, 2009) and all noted some positive benefits of studying abroad to home country development. Spilimbergo (2009) examined whether there is any correlation between democracy in the

home country and foreign education by including 183 countries in the period of 1960-2005. He considered the total population of the sending country, the number of students to study abroad, destination country, the level of home country democracy in the past and at present, and the level of host country democracy. His dynamic panel regressions study found that international education before 1985 had more impact on the home country than later period. In addition, he found that “the number of students abroad has no impact on democracy at home. In contrast, the quality of democracy in a host country has a strong and significant impact on domestic democracy, which increases with the number of students abroad” (p. 535)

Atkinson (2010) provided an evidence of an association between higher rates of students pursuing an education in the US and the improvement in human rights record based on his regression analysis of data between 1980-2006 (from countries with a population of at least 500,000). Atkinson (2010) said that three contextual conditions are important for international education exchange participants to diffuse liberal values and practices in their home country, especially in authoritarian states. These were 1) the depth and extent of social interactions that occur while abroad; 2) a shared sense of community or common identity between participants and their hosts; 3) and an attainment of a politically influential position by the exchange participant when they return home (p. 2).

Del Sordi (2018) looked at political implications of scholarship programs that send domestic students abroad through Bolashak scholarship, Kazakhstan's national scholarship program. She viewed that scholarship program is utilized not only as a tool to develop national economies through skilled human capital and their networks, but also as a vehicle to build positive outlook of Kazakhstan at international level and foster nationalistic attitude of Kazakhs through generous support to their education abroad, through fostering shared community, and subtly passing messages to give back to the home country after graduation.

Although most evaluation studies focus only on returnees considering non-returnees as negative outcome (Campbell, 2016), a few studies reported positive impact of non-returnees to home country such as educational support networks (Zweig, 2006), financial remittances (OECD, 2007), and direct investments (Baraulina et al., 2007) to home country by the alumni from overseas. Financial remittances can even reach households or rural villages in a way that other large-scale financial investments do not and can support economic and social growth through paying children's school fees, affording health care, or reinforcing a family's resilience during the time of economic or environmental stress (Campbell, 2016). Baraulina, Bommes, and El-Cherkeh (2007) noted that the diaspora in foreign countries who are in

positions of international business or development of their countries of origin contribute to their nations by exploiting their good contacts to their home country governments (p. 23).

2.4.4. Brain drain, brain circulation, or brain exchange

Despite many scholars that assert positive outcome of international education to home country, other scholars argue that international higher education scholarship programs, especially those funded by host governments as part of Official Development Assistance for developing countries, contribute to brain drain for the developing countries when grantees do not return back (Kim, Bankart, and Isdell, 2011), when outward migration at tertiary education increases (Capuano & Marfouk, 2013), or that these programs bring lost opportunity for the beneficiary countries when most funds are spent in the donor countries (UN, 2015b). Students who choose to pursue their graduate education abroad or those who qualify for competitive scholarship programs tend to come from higher socioeconomic backgrounds, graduate from selective undergraduate institutions, and tend to be better prepared academically than their counterparts who choose to pursue graduate education at home (Kim, Bankart, and Istell, 2011). Therefore, when graduates stay in the host country, the home countries lose their talented human resources and intellectual capabilities, thus called “brain drain”.

Docquier, Lowell, and Marfouk (2009) noted the Caribbean, the Pacific (Oceania), Central America, and sub-Saharan Africa have had the highest rates of brain drain. Brain drain is observed to be acute in lower-income countries as well as in STEM fields where postdoctoral appointments after doctoral degrees have become the norm in the host countries (Johnson and Regets, 1998) or due to more opportunities in host countries in these fields (Altbach, 2004; Marsh & Oyelere, 2018). Kim, Bankart, & Istell (2011) found that among international PhD graduates from US universities in 1980-2000s “India had the largest predicted probability of staying in the US (82%), followed by China (76%), while individuals from places other than China or India had a predicted probability of 45%” (p. 152). Kim, Bankart, & Istell (2011) showed that the factors to stay in the US such as countries of origin or fields of study changed over the years due to other contextual changes in home or host country. While in 1980s graduates with Ph.D. in engineering were 80% more likely to stay in the US than biology degree holders, in 2000s this trend reversed with biology graduates significantly staying than engineering or other fields of study following increased funding for the biology field of research. In addition, Kim, Bankart, and Istell, (2011) found that international graduates whose primary source of funding was from their home governments,

employer support, or fellowships, were less likely to stay than those whose primary funding was from personal or family sources.

The HCT postulates that individuals contribute to the firms and companies and the community where they work and reside (McMahon, 2009). Researchers viewed that alumni contribute their skills and knowledge to organizations they work for or the country they live in; thus, they contribute to the foreign organization or country that they reside in. In other words, scholars and program administer view that scholarship alumni who leave their countries cannot substantially contribute to their home country's socioeconomic development (Atkinson, 2010; Campbell, 2016).

Policy makers in source countries started employing various strategies to call for skilled migrants. Jonkers (2008) suggests that policies employed by governments to encourage the return of skilled immigrants can be divided into three: first, incentives to build *migrant networks*; second, *temporary return programs*; and third, programs aimed at *permanent return*. Some efficient ways are multiyear competitive grants for transnational peer-reviewed researches to encourage collaboration between diaspora and local researchers while strengthening the local tertiary education, and creating jobs at science parks (Marsh and Oyelerem, 2018). The Chinese government has been able to bring back 2,263 "high-caliber talents"—researchers, entrepreneurs, senior-level managers, and other Chinese migrants abroad with innovative and entrepreneurship skills and networks—by 2012 through government-initiated plans such as 1000 Talent program (Zha & Wang, 2018).

As noted earlier, the home country context, policies to retain alumni are important for brain gain. Gribble (2008) noted that successful countries in attracting highly skilled post-graduate professionals back home were those with the most aggressive programs for supporting higher education, as well as innovation in research. On the other hand, Ethiopian alumni and diaspora members in Amazan's (2014) study criticized the government of Ethiopia for focusing on financial benefits from diaspora such as bringing investments and financial flow from diaspora communities to home country but not being interested in actually using their knowledge and skills in the home country. Larger developing countries such as emerging economies of China, India, Brazil, and Indonesia started experiencing return migration or brain gain whereas smaller countries with high emigration rates of 20 percent or higher experienced brain drain without the compensatory brain gain (Beine et al., 2008). This return movement is called brain circulation when the outflow of migrants turns homeward after some time in host country coming back with talent and experience benefiting both the home and host countries.

In the globalized world, scholars (e.g. Barauline et al., 2007) emphasize that individuals can have social benefits to their home countries regardless of the location. Growing studies on diaspora indicate that the talents who have left their countries can contribute back to their home country—although there are structural and sociopolitical and economic challenges, such efforts have more possibilities now than before with ICT developments, virtual network, growing possibilities to cooperate and collaborate between institutions across the world (Pan, 2011; Teferra, 2005). Marsh and Oyelerem (2018) emphasized that when the home government is supportive, the network and collaboration with diaspora and local institutions are stronger, and have more transnationally mobile citizens who go back and forth between multiple countries (transnational entrepreneurs). In addition, the authors emphasized the need and importance of host institution's support for such joint collaborations with small and low-income countries suffering from brain drain.

Return to the home country, in general, is a complex decision-making process for the individual students. Students weigh various socioeconomic, professional, family benefits and costs and could delay their return to home country or choose another third country to reside. The push factors that compel students to delay their return to home countries include factors in the home countries such as unstable political and economic conditions, underdeveloped research facilities or lack of opportunity to utilize their knowledge (Tansel & Güngör, 2003) while the pull factors that compel students to stay in host countries include increasing research grants or favorable immigration policies. In a retrospective study of MasterCard Foundation Scholar Program alumni, Marsh et al. (2016) noted that alumni delayed their return to pursue strategies for securing resources and establishing relationships and networks abroad in order to prepare for a successful return. They noted, "several alumni delayed their return for more than three decades, pursuing careers and raising children in the diaspora, and eventually returning to their home countries as social entrepreneurs, businesspeople and academic and thought leaders" (p. 7). Showing the complexity and non-linear post-scholarship path, Marsh et al. (2016) defined four main post-program trajectories that African alumni of MasterCard Foundation Scholar Program undertook: 1) direct return to Africa; 2) remain in diaspora to attend graduate school (master's or PhD); 3) remain in diaspora to access work opportunities, with the possibility of delayed return; and 4) direct return to Africa to work, with eventual seeking of a higher degree or outside career opportunity.

In this complex context of post-scholarship trajectories, it is not clear how long is considered a reasonable 'return' on the scholarship, before which a mobility out of the country or into another sector might be considered brain drain (Mawer, 2014). If alumni

leave their home country after a decade, is it still counted as negative brain drain effect? Moreover, some studies showed (e.g. Webb, 2009 or Chesterfield and Dant, 2013) that returning to the home country does not mean that alumni would work in their previous work sector, especially in public sector and higher education sectors. Webb (2009) noted that while most Cambodian alumni of AusAID scholarships returned to Cambodia, most moved out of public sector within the country for better salary and professional advancement. DAAD (2013) reported that while graduates had a high rate of return (96% return to their region of origin), 63% changed their employer for better financial incentives and opportunities for personal advancement.

Due to potential brain drain, some scholarship programs set conditions that require grantees to return to their home country or to their sector, or prior employer at the completion of their program. Some programs require collateral such as apartments or number of guarantors who would pay back the scholarship funding in case grantees fail to graduate from their programs or return to the home country. Campbell (2018b) illustrated these conditions by defining three main types of post-scholarship conditions. The first type is *binding agreements*:

Binding agreements are often associated with international scholarships funded by private companies or national governments that expect students will return with new skills and apply them when they come back... Scholarships in this category are likely to specify the academic degree, work conditions, the length of service needed to fulfill the requirements. (Campbell, 2018b, p. 169).

The second type is called *social contracts*, when “funder delivers a strong, consistent message of what is expected of the grantee following their studies, without putting a binding agreement in place” (p. 169). Program with these conditions are more flexible about individualized pathways for graduates and “funders may design specific program components aiming to prepare the student for their return such as internships, project development or grant-writing courses” incentivizing the behaviors they wish to promote among their graduates (Campbell, 2018b, p. 169-170). Such programs have goals of political, social, or economic development and are mostly funded by private foundations, host university programs, and high-income country government aid programs whose goals are broad. The third type is called *vague post-scholarship* guidelines that have little or no information provided to the scholars about post-program expectations. Such programs can be designed for mere providing access to education, can be aligned with diplomatic goodwill and cooperation

or the funders might be in the beginning stage of the program and might not be sure what to expect from graduates.

While some programs are very clear and strict about the return-to-home country requirement such as US Fulbright scholarship, Kazakhstan Bolashak Scholarship, Japanese Aid for Human Resource Development program, most host government scholarship programs such as DAAD (Loerke, 2018) or the Japanese government scholarship program are vague what they expect from alumni including a return to their home country. The latter might happen when the program aims to contribute to the home country while also trying to encourage inward migration to host country (Loerke, 2018). Nevertheless, the question of ways in which scholarship program conditions influence alumni in their post-program trajectories remains unclear.

The above sections presented existing literature on international student learning experience with a particular focus on Japan as a host country, the international scholarship programs and their relationship to the national development including studies that show positive as well as literature that reported negative impact such as brain drain phenomenon. The above-mentioned scholarly works have contributed to our understanding of ways in which international scholarship programs influence the socioeconomic development of home countries; however, gaps remain that needs further study. The following section elaborates some of these gaps that are relevant for this study.

2.5. Gaps in the literature and the focus of this study

The literature review illustrates the following main gaps in four areas: 1) scholarship students' learning experience, 2) post-program impacts of alumni; 3) influence of scholarship program design and conditionality on students' post-program choices, 4) country-specific case studies.

1. *The learning experience of scholarship students.* Baxter (2018) stated, “[S]tudies of international scholarship programs (...) give limited attention to student experiences during their studies” (p. 106). While the literature on study abroad and international education is rich, few studies have examined scholarship students' learning experience from critical perspectives that go beyond developing technical skills and building knowledge. Programs often rely on host institutions to offer high-quality education and research as well as programming dedicated to building students' intercultural skills. In addition, programs assume that individuals would take

initiatives to take advantage of opportunities available to them. However, as studies on international students have shown, international students often struggle to build a friendship with peers and local residents of host countries, and may become more ethnocentric, avoiding interactions with those from other cultural backgrounds (Vande Berg & Paige, 2009). In order to realize the full potentials of international education scholarship programs to positively contribute to home country development, learning experience that promotes perspective transformation is important to promote self-agencies to make changes. Although transformative learning theories appear as a relevant approach to explore students' learning experience, only a few studies—none of which focused on scholarship programs—analyzed foreign students' experience from these lenses.

2. *Post-program impacts of alumni.* While recent studies started to focus on the outcome of international education, qualitative studies on long-term impacts remain few. Franklin (2010) stated, "Study abroad outcomes assessments are routinely conducted immediately following a participant's return from abroad or shortly after graduation" (p. 169). Most studies on student learning are concerned about students' learning outcome right after the program. These studies do not examine how students apply these skills and competencies in their lives or communities after two or more years. In addition, as Dassin & Navarette (2018) reminded "less is known about alumni who may return home but fail to advance professionally". Scholarship programs consider returning home as an indicator of success, and social impact; however, as some literature started to show (e.g. Webb, 2009), this is not the case. This lack of tracing alumni in a long-term fails to capture the social impacts including those who did not return immediately after the program or those who are mobile—returning to home country but leaving after some time.
3. *Scholarship programs' conditions and programming.* As this literature review shows, scholarship programs are diverse with different goals, objectives, processes, conditions, funding size, programming and so on. Only in 2018, Campbell presented general types of scholarship conditions that potentially influence alumni's decisions to return home or stay abroad. Thus, the next step would be to compare scholarship programs by their conditions and explore how they influence students' choices, successes, satisfaction, or decisions about post-program trajectories.
4. *Study on Mongolian students and alumni.* There is lack of study on Mongolian students who studied abroad. Dassin & Navarette (2018) called for "detailed research

in each country or region” involving insiders such as local researchers or former scholarship holders in order to understand the complexity of alumni trajectories, the challenges and supports-needed in applying their knowledge and skills for the home country benefits (pp.318-319). This understanding would not only help fill in gaps on societal benefits of scholarship programs useful for public policy but also provide information on how to efficiently support alumni after their programs in order to maximize their impacts to the home country. Although recent studies started to emphasize the importance of post-program support for alumni (Loerke, 2018; Dassin, 2018), there is still a lack of understanding about ways to support alumni in different home country contexts.

2.6. The focus of this dissertation and conceptual framework

The literature review shows that international scholarship programs are highly valued as a tool for social change, and national development. However, the question of how alumni make meaning of their experience in the host country and how they apply the knowledge, skills, and international experiences to contribute to their home country still remains unclear. As mentioned earlier, however, measuring the societal benefits or impacts of scholarship programs to the home country is a major challenge. Scholarship alumni are diverse, as are their host institutions, fields of studies, their learning experiences or the ways they contribute to the home country. Therefore, as Campbell (2016) asserted, “development impact of scholarship programs is best explained through the experiences of these ‘agents of change’ themselves”, how alumni conceptualize their experiences and their contribution to the home country is important (p. 47). This study, thus, aims to fill in some of the above-mentioned gaps by posing the following questions.

1. How do the Mongolian alumni of Japanese graduate schools make meaning of their learning experience in Japan as scholarship grantees after long term?
2. How do the scholarship grantees perceive the benefits of their study to the home country?
3. What challenges do the alumni face that limit their contribution to home country?

Conceptual framework

In order to answer these questions, this study employs the following framework (Figure 2.3) based on the literature review as well as the “logic model of international scholarship

programs that aim to promote social and economic change in low- and middle-income countries" proposed by Campbell (2016).

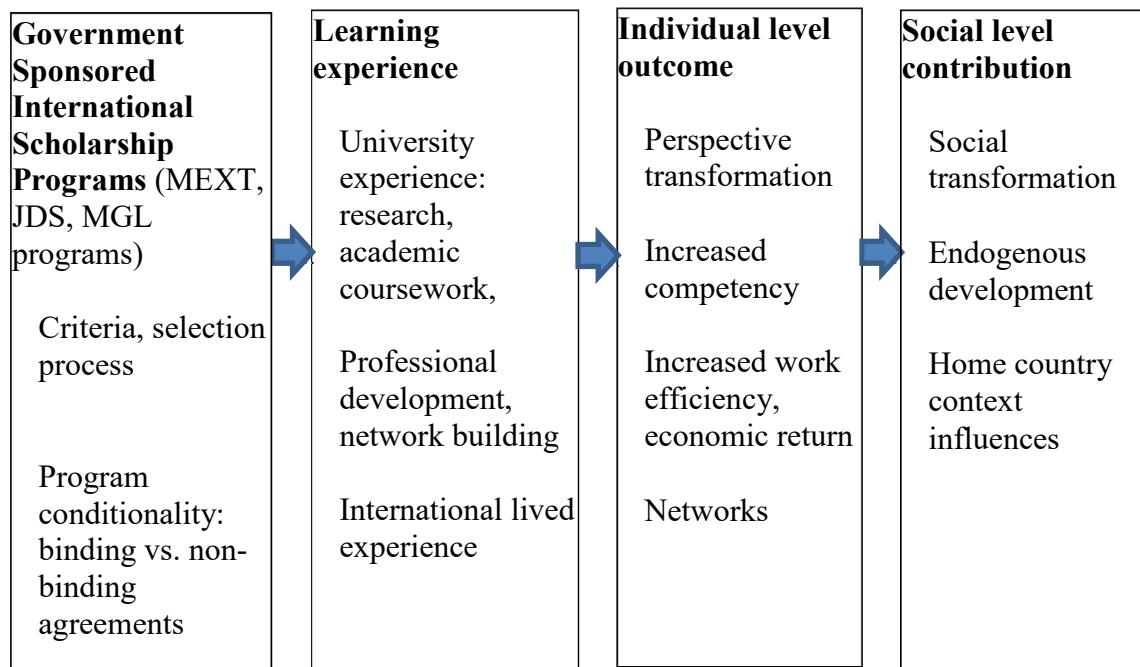


Figure 2-3 *Conceptual Framework*

- **Scholarship program conditions and selection.** The literature review showed that scholarship programs are diverse in their goals, conditions, or selection process. This study includes three types of international scholarship programs sponsored by Japanese or Mongolian governments. The Japanese government-sponsored scholarships are MEXT scholarship and Japan Grant-in-Aid for Human Development (hereinafter referred to as JDS scholarship). The Mongolian government scholarship is referred to as MGL scholarship. More information about these programs will be presented in the background chapter (Chapter 3). The selection criteria, process, size of funding, and conditions imposed on scholarship grantees are assumed to influence alumni's experience in the host country as well as their post-program trajectories.
- **Learning experience.** After successfully been selected, students are expected to take advantage of host institution's academic and social programs, professional development activities opportunities, and be immersed in an international experience in another country. Most students to enroll in graduate degree programs especially PhD course, have to spend 1-2 semesters in the HEIs as research students during which they prepare for and take the entrance exams. While JDS students directly enroll in their programs, some MGL and all MEXT students spend time as research students.

In order to understand how alumni make meaning of their learning experience, Mezirow's (1991) perspective transformation theory is drawn as a heuristic model and Glisczinski's (2005) Transformative Learning Quadrant model and King's (1999, 2008) Learning Activities Survey both of which build on Mezirow's theory are utilized in this study.

- **Individual-level outcome.** From this international learning experience, the financial and other programming support, scholarship students are expected to have benefits at the individual-level. Besides academic degrees, these benefits include perspective transformation—an ability to see things from another angle, a new way to see self, critical views of norms and ideologies in their home country; or professional capacity development skills and competencies needed in their career and professional advancement.
- **Social level contribution.** The transformative learning theories, especially from critical lenses (e.g. Freire, 1970), view that the goal of education is to develop agencies to make positive changes in society. Similarly, international scholarship programs as ODA for low- and middle-income countries as well as those funded by the national governments of such countries, have underlying rationales that assume these programs bring societal level benefits. Assumptions of both individual and societal benefits of scholarship programs are grounded in the human capital theory that posits investment in education and training has both individual and societal impacts. Such impacts can have monetary value (e.g. increased earning, contribution to economic development) and non-monetary values (e.g. personal agency, policy-making). McMahon's (1999) *endogenous development* framework provides a good lens to approach and understand these societal level benefits. In addition, these benefits are also influenced by contextual factors such as the home country's economic, political, social state (e.g. availability of specialized jobs, work conditions).

Chapter Three. Relevant Background of Student Mobility in Japan and Mongolia and Government-Sponsored Scholarship Programs

This chapter first presents the summary of international student mobility and the role of international scholarships as part of official development assistance in Japan and policies and trends in Mongolia to prepare its human resources abroad. The chapter ends with a synopsis and comparison of the three focal scholarship programs of this study, in terms of their purposes, selection criteria, number of grantees, and program conditions.

3.1. Japanese government policy for international student mobility and the role of scholarships

3.1.1. Policies for international student mobility.

According to the JASSO (2017) report, there are 267,042 international students in Japan as of 2017, with 188,384 international students in higher education institutions and 78,658 in Japanese language schools. While the total number of international students is small compared to 903,127 degree-students in the US (OpenDoor, as of 2016), 567,864 in Australia (as of 2018, Australian Government), or 440,000 students in China (as of 2017, Ministry of Education, China), Japan is still one of the top destinations of international students in Asia. In the 1990s and early 2000s, the number of international students from China, South-Korea, or Taiwan used to lead the list; however, last ten years have seen more diversity as students from Vietnam (increased by twelve-fold), Nepal (increased by tenfold), and Indonesia (increased by two-fold) dramatically grew (see table 3-1). The table 3-1 below does not include the number of international students in language schools.

Table 3-1 *International Students in Japan in 2008-2017*

Country	Number of inbound international students by country									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
China	72,766	79,082	86,173	87,533	86,324	81,884	77,792	74,921	75,262	79,502
S. Korea	18,862	19,605	20,202	17,640	16,651	15,304	13,940	13,397	13,571	13,538
Taiwan	5,082	5,332	5,297	4,571	4,617	4,719	4,971	5,610	6,401	6,994
Vietnam	2,873	3,199	3,597	4,033	4,373	6,290	11,174	20,131	28,579	35,489
Malaysia	2,271	2,395	2,465	2,417	2,319	2,293	2,361	2,460	2,581	2,750
Thailand	2,203	2,360	2,429	2,396	2,167	2,383	2,676	2,904	3,185	3,266

USA	2,024	2,230	2,348	1,456	2,133	2,083	1,975	2,223	2,428	2,516
Indonesia	1,791	1,996	2,190	2,162	2,276	2,410	2,705	2,995	3,670	4,235
Bangladesh	1,686	1,683	1,540	1,322	1,052	875	825	1,015	1,402	1,919
Nepal	1,476	1,628	1,829	2,016	2,451	3,188	5,291	8,691	13,456	14,850
Mongolia	1,145	1,215	1,282	1,170	1,114	1,138	1,222	1,350	1,495	1,711
Sri Lanka	1,097	934	777	737	670	794	902	1,200	1,905	3,020
Myanmar	922	1,012	1,093	1,118	1,151	1,193	1,280	1,652	2,079	2,686
Others	9,631	10,049	10,552	9,504	10,458	10,965	12,071	13,513	15,108	15,908
Total	123829	132720	141774	138075	137756	135519	139185	152062	171122	188384

* An increase by more than one-fold over the ten-period are highlighted with gray

The Japanese government efforts to attract international students from foreign countries have evolved since World War II with three main milestones. 1) The start of the national scholarship scheme in 1954, 2) the 100,000 international students plan in 1983, 3) and the 300,000 international students plan in 2008. In 1954, Japan established its national scholarship program and accepted 23 international students mostly from East Asian countries to promote mutual understanding, peace, and to provide technical assistance.

In the 1970s, Japan moved to the next phase of internationalization in the face of rapid economic expansion. The OECD recommended Japan to increase its financial assistance to developing countries and provide educational opportunities (Watanabe, Sato & Murasawa, 2018, p.6). In 1974, the Japan International Cooperation Agency (JICA) was established to support human resource development and institutional building, and to contribute to the economic and social development of developing countries in East Asia (Watanabe, Sato & Murasawa, 2018, p.6). In 1983, largely as a response to the OECD suggestions, Japan passed a plan to host 100,000 international students.

100,000 International Students Plan (1983-2003)

Prime Minister Nakasone's 1983 initiative to recruit 100,000 international students to Japanese HEIs by the year 2000 was one of the major policies for international student mobility and internationalization of HEIs in Japan (cf. Horie, 2002; Huang, 2007; Kameoka, 1996; Kamibeppu, 2012; Tsuneyoshi, 2005; Umakoshi, 1997). The initiative led to the expansion of overseas development assistance in the 1980s, and the development of short-term student exchange programs (Bradford, 2015; Furuoka, Oishi & Kato, 2010; Kamibeppu, 2012; Ninomiya et al., 2009; Tsuneyoshi, 2005; Zhou, 1991). The main aim was to support human resources development in developing countries, specifically in Asia and increase the

number of international students up to 100,000 (Yoshida, 2015). In this period, the Japanese were the main language of instruction for foreign students; thus, Japanese language education was expanded both in and out of Japan (Yoshida, 2015).

Within two decades, Japan fulfilled its plan to attract 100,000 international students. The majority of international students were enrolled in undergraduate programs with 26 percent in graduate schools (Goodman, 2005, p. 12). The Ministry of Education's budget expansion for incoming international students, establishment of NGOs and other support group for international students (e.g. Japanese language programs), the economic growth, and the science and technology development in the first decade of the plan played an important role in reaching the goal to increase the international students (Ota, 2003).

The 300,000 International Students Plan (2008-2020)

In 2008, the government of Japan set a new target to recruit 300,000 international exchange students based on its success of the 100,000 International Students Plan (MEXT, 2014). The difference from the previous plan was that it aimed to strengthen Japanese universities and contribute to Japanese economic development through highly skilled international students (Yoshida, 2015). Calling this strategy as “Global Strategy” the Japanese government aimed to not only increase the number but to foster its global competitiveness. While the previous plan aimed to bring in those willing to study in Japanese, the 300,000 student plan targets highly skilled students who are willing to study in English. Under this plan, various projects have been implemented such as “Global 30 Project” in 2008, “Re-Inventing Japan Project” in 2011, “Go Global Japan Project” in 2012, “Project for Promotion of Global Human Resource Development” in 2012 and Top Global University Project in 2014 with slightly different purposes under the same overarching goal.

3.1.2. International higher education scholarship programs as ODA

With the Meiji Restoration in 1868, government-sponsored Japanese students, as well as Japanese bureaucrats and academics, were sent to Europe and North America to bring back Western knowledge (Nakayama, 1989 as cited in Bradford, 2015). After WWII, Japanese students were sent to the US again “to bring back skills to rebuild and modernize Japan” first through US government program, called GARIOA program (1946-1952) then Japanese Fulbright Program from 1952 (Uyeki, 1993, p. 5). Predominantly coming from highly

educated family, the Japanese Fulbrighters were following in the footsteps of earlier generations of Japanese students during the Meiji period (Uyeki, 1993).

The rationales for international student exchange began to shift from a desire to learn from the West to promoting mutual understanding and friendship and providing technical aid to developing countries. Japan was the first Asian country to join the Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD). In 1954, Japan began to offer technical aid through the Colombo Plan with war reparation payments to Southeast Asian countries. The Colombo plan was an international technical aid program for former British colonies in Asia, launched in 1950 (Yamada, 2013). The technical aid consisted of training human resources of these countries, dispatch of Japanese experts and volunteers, in addition to other grants and loans. Out of 961 technical cooperation projects conducted by Japan from 1966 to 2003, about one-third (28.9) was designed for the development of human resources, while the two-thirds were for technology development and research (JICA, 2005a, p. 15, as cited in Yamada, 2016, p. 218).

Originating in war reparation payments, Japanese ODA avoided intervention or participation in domestic matters of assisted countries but rather focused on technical assistance and providing access to Japanese higher education with unclear expectations from alumni. Development of human resources (*hitozukuri*) as the foundation for nation-building has been the Japanese philosophy of development. Assisting "Self-help" efforts of developing nations was a sense of responsibility for demonstrating a model to the countries that follow on the developmental path (Yamada, 2016).

While the aim to prepare human resources still remains as one of the main goals of MEXT scholarship programs, it is incorporated into a national strategy to bring highly skilled international students into Japan. The MEXT scholarship and JICA scholarship schemes are parts of the larger strategic policy, but they also have distinctive expected outcomes—that the graduates would return to home country and achieve leadership positions there while other routes aim to retain the graduates in Japan (MEXT, 2016b).

3.2. Background to Mongolian practice to prepare human resources abroad

Mongolia is a landlocked country positioned at the intersection of Russia, China, and Central Asia with a vast land (1.5 million km²), a small population (3.2 million) and a harsh climate. Due to this geopolitical position, Mongolia has been largely dependent on its two big neighbours. For almost seventy years (1924-1990), Mongolia was a part of the Soviet bloc

(but not the Soviet Union) and was part of Council for Mutual Economic Assistance (COMICON) under the leadership of Soviet Union. With the dissolution of Soviet Union, Mongolia transited from socialist communism to democracy in 1990.

Culturally, Mongolia is a product of a pastoral nomadic heritage specialized “in the domestication and control of a large number of animals and management of great tracts of semi-arid land in order to provide food and water for his/her family and animals” (Batbayar, 2002, p. 326). The nomadic lifestyle requires flexibility and adaptability to everchanging harsh weather. “The outlook of nomads was that of free men—free to roam where they chose, free from the restraints of walled cities and obligations to feudal rulers, and free to live as they wished. This freedom tended to create an independent, almost an arrogance, in the nomad’s outlook” (Batbayar, 2002, p. 326). While the number of households solely depending on livestock and herding has diminished to 30% of the population (Statistical Office of Mongolia, 2017), the nomadic culture has deeply shaped Mongolians’ identity and mentality.

Economically, Mongolia is classified as a lower-middle income economy by the World Bank (World Bank, 2017). Over the past two decades, Mongolian economy has grown rapidly expanding by 10 times over the last 15 years (UNDP Mongolia, 2017). The GDP growth had peaked at 17.5% in 2011 due to the mining boom before it went down to 2.3% in 2015. On the human development index (HDI), Mongolia stands at 92 in the high human development category (since 2015). However, poverty and the regional disparities within the country are visible. The rapid urban settlement (that was largely unplanned) following the shift from a centrally planned system to a market economy created a big gap between urban cities and rural countryside. Following greater economic opportunities in the cities coupled with difficulty to sustain a rural nomadic life in harsh weather, countryside men and women started to migrate to the cities. The National Human Development Reports of Mongolia (2016) noted that “nearly one person in five is living below the poverty line”.

Since becoming a democratic country in 1990, Mongolia “has ratified a number of international treaties and adopted of a number of related sectoral policies, including in the field of health and child labour” (UNDP Mongolia, 2017). However, a large gap in the implementation capacities is a big hurdle for the country’s development. UNDP Mongolia noted, “implementation capacity gaps identified include incoherence between different sectoral policies, a lack of clear division of powers, transparency and accountability challenges notably in relation to major development projects and related investments, as well

as a weak civil service, and underrepresentation and lack of political participation of women and youth" (UNDP Mongolia, 2017, p. 11)

Higher education and outbound student mobility

Since the transition to democracy, the higher education enrollment rate dramatically expanded with gross enrollment rate (GER) of 64% (as of 2017) (UIS, 2018). The female enrollment rate (76%) is higher than male (53%) opposite to the general trend in many countries. While this general indicator seems to be at similar level with developed countries (e.g. Japan's GER was 63% in 2016), lack of quality higher education system has been one of the reasons for outbound mobility of Mongolian students (Loo, 2017).

As of 2017, 17,674 students are estimated to be studying abroad at tertiary level (UIS, 2018; CSIS, 2018) which is a large number when compared to the total domestic gross enrollment (GER) ratio of 155,248 in 2017 (MECSS, 2018). In other words, the outbound student ratio to domestic gross enrollment ratio (GER) is around 11.3%. This ratio is large compared to some of the top countries of origin that send most international students abroad such as China (869,387 outbound students but the outbound student ratio to GER is only 2.0), India (323,526 outbound students but the outbound ratio is only 0.9), or South Korea (159,339 outbound students with 4.9 outbound ratio). On the other hand, this number is slightly lower than other highly mobile countries such as Nepal (14.4%) or Kazakhstan (16%) after adding outbound students to China (UIS, 2018; CSIS, 2018).

During the Cold War period, the majority of Mongolian outbound students went to the Soviet Union and other communist countries such as East Germany. As Mongolia was one of the closest satellite countries of Soviet Union, the leaders and top professionals were prepared in the Soviet Union. The host countries have diversified over the last two decades and in 2017 the top destination countries with most Mongolian students were China, South Korea, Japan, Russia, and United States (see Table 3.2).

Table 3-2 *Top destination countries of Mongolian outbound students (total outbound students 17,674)*

Top country of destination (as of 2017)	Number of students enrolled in HEI
China*	7628 (43%)
South Korea**	2259 (12.7%)

Japan***	1711 (9%)
Russia**	1654 (9%)
USA**	1425 (8%)

* CSIS, 2018 (Data from China's Foreign Affairs)

** UIS, 2018

*** JASSO, 2018

The number of students leaving to study in China has dramatically increased since the 2000s as the diplomatic relations between two countries improved, the Chinese economy boomed and efforts from the Chinese government to recruit international students, especially from Belt and Road countries increased (CSIS, 2018). South Korea is one of the major economic and trade partners of Mongolia (Battur, 2013) and a major destination country for Mongolian migrant workers reaching 1% of Mongolian population or 32,000 Mongolians in South Korea as of 2016 (IkonNews, 2016). This high migration rate, economic partnership, and popularity of Korean culture may have influenced the surge of Mongolian students pursuing higher education in South Korea. In comparison, there are 6,500 Mongolians in Japan.

There is no official data that reports outbound students' sources of funding. During the Cold War period, students were mostly financed by host governments as higher education was free of tuition fees in Soviet Union system (Prokofiev, Chilikin, & Tulpanov, 1961). During the first decade of transition after USSR dissolution, most Mongolians could not afford to study abroad; the outbound students dropping from 7000 in 1990 to 1,500 in 1995 (Statistical Office of Mongolia, 2001). Those who went abroad were largely dependent on government, philanthropic and other international organizations; however, from 2000s students pursuing higher education abroad have increased with diverse sources of funding including host universities, international organizations and private sources.

3.3. Mongolian student mobility to Japan

In 1972, Mongolia and Japan established a cultural exchange dialogue. The first two Mongolian students were sent to study in Japan under the Japanese government scholarship scheme in 1976. While until 1990 the economic cooperation was very limited, Japan invested in Mongolia's first cashmere factory, "Gobi" in 1977 with technology, production, and distribution. During the transition period after the dissolution of Soviet Union, Japan was one

of the first countries to support Mongolia through official development assistance, partnership between government and private agencies, scholarships for education and cultural exchanges (Udo, 2008).

Since the 1990s, the number of Mongolian students studying in Japan has slowly increased due to scholarship grants from the Japanese government, increasing the popularity of Japanese language in Mongolia, cultural ties such as Sumo wrestling, and improved economic and trade agreements (MOFA Japan). As of 2015, Mongolia stands at 11th in the list of international students with 1,350 students enrolled in higher education institutions (JASSO, 2016). Recent developments between the countries such as JICA's Engineering Higher Education Development project to prepare 1,000 engineers in Japan by 2023 and the Economic Partnership Agreement will influence the total number of Mongolian students in Japan. In addition, in recent MEXT (2016a) document, Mongolia is specified as a strategic country in East Asia for promoting Japan and student mobility to Japan (Appendix A).

Figure 3-1 shows the outbound Mongolian student mobility to Japan during the 2004-2016 period. "Others" category includes students in vocational, language schools, junior colleges, and other training programs. Over the last four years, students in Japanese language school increased dramatically many of whom are interested in working part-time under student visa to save some money.

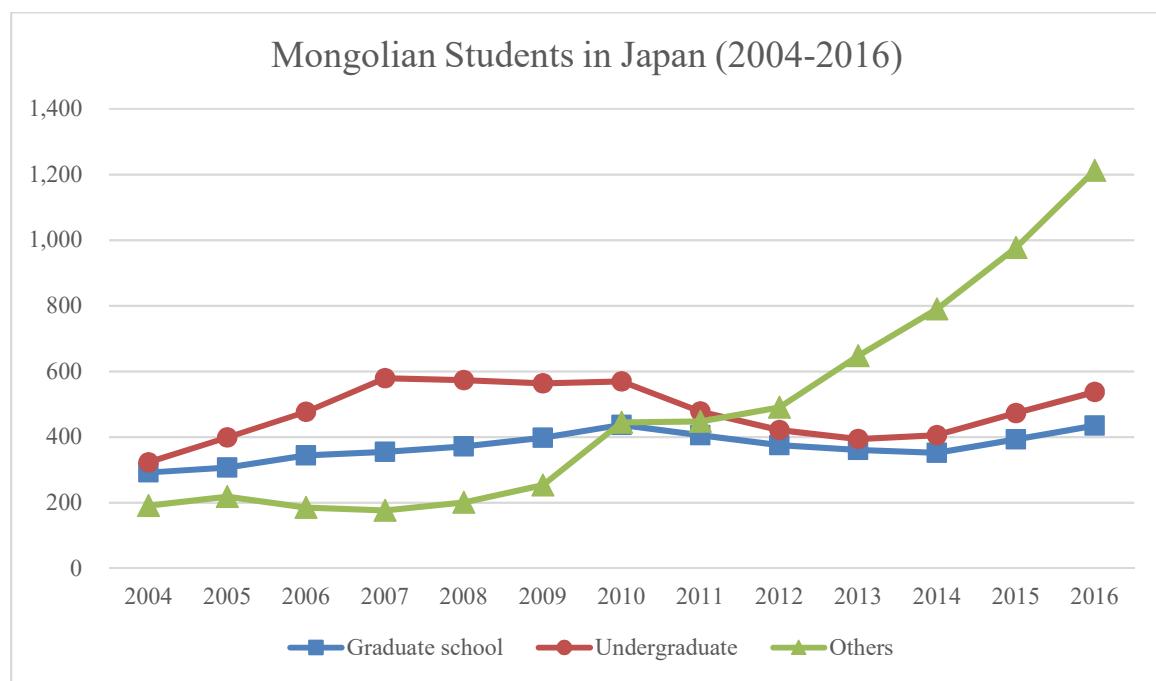


Figure 3-1 *Mongolian students in Japan (2004-2017)*. Source: JASSO, 2017

Similar to overall international student trend in Japan that decreased briefly following the Great East Japan Earthquake and Tsunami in 2011, Mongolian students enrolled in Japanese HEIs decreased slightly in 2011-2013 but slowly increased from 2014. In addition, Mongolian economic fluctuation that improved in 2012-2013 but dropped again in 2014 could have also influenced this trend. Table 3-3 shows the number of Mongolian graduate students and its percentage to the total Mongolian students enrolled in graduate schools in Japan.

Mongolian graduate students enrolled in Japanese HEIs (2004-2016)

	2004	2006	2008	2010	2012	2014	2016
number (percentage)							
Doctor	93 (32)	112 (33)	130 (35)	149 (34)	158 (42)	146 (41)	156 (36)
Master	155 (53)	156 (45)	184 (50)	221 (51)	166 (44)	164 (47)	204 (47)
Professional	2 (1)	8 (2)	12 (3)	8 (2)	16 (4)	12 (3)	23 (5)
Non-regular	42 (14)	68 (20)	45 (12)	59 (14)	35 (9)	30 (9)	52 (12)
Total	292	344	371	437	375	352	435

Source: *JASSO (2017)*

Table 3-3 shows that Mongolian graduate students in Japanese HEIs have been rather stable over the years with Masters' program students slightly higher than Ph.D. program students. As for the field of study, healthcare and medicine were the most popular fields of study for doctoral students while social science has been dominant among Master's degree students (Figure 3-2).

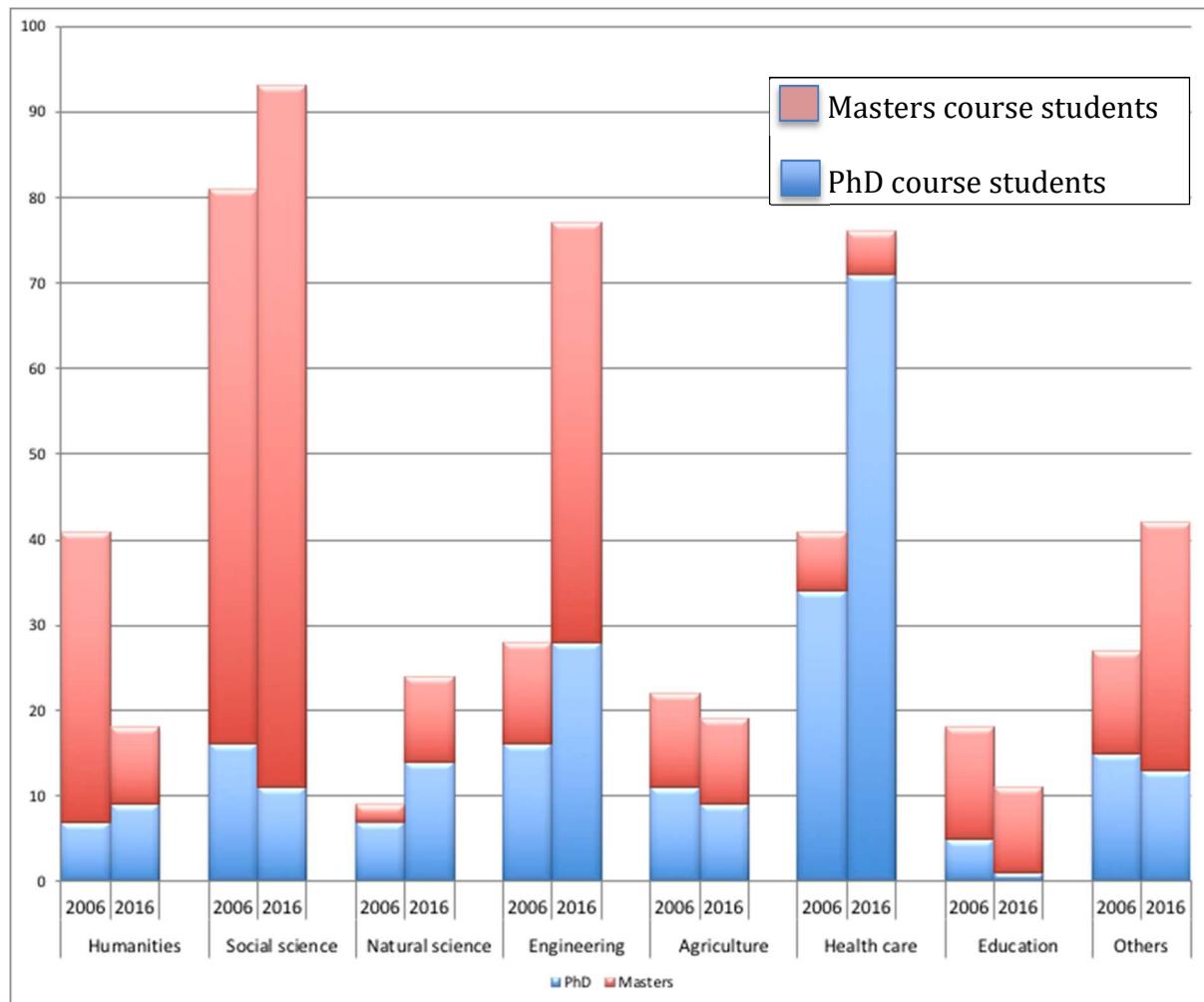


Figure 3-2 Mongolian Graduate Students in Japan: Field of Study in 2006 vs 2016
Source: JASSO (2017)

In the last ten years, engineering program started to become a dominant field of study both for Ph.D. and Master's program as Mongolia emphasizes the need of skilled engineers to work in major mining companies. This trend will continue following the project with JICA to strengthen engineering program at Mongolian HEIs and prepare professionals and faculty in Japan. Under the scheme, 1000 engineers will study in Japan for dual degree programs, master's and doctoral degree programs (Engineer, Technology, Higher Education Project introduction, 2017).

3.4. Comparison of Focal Scholarship Programs in This Study

Japanese Government Scholarship Program (MEXT Scholarship)

Since 1954, the Japanese Government Scholarship (hereinafter referred to as MEXT scholarship) scheme expanded from focusing on Southeast Asian countries to a global level

including both developing and highly developed countries. In 1983-2009 only, 188,506 students from around the world have received the scholarship to study in Japan at various levels. The scheme has six types of programs—four at the undergraduate and two at the graduate level (MEXT, 2010). The undergraduate scheme consists of “Undergraduate Degree Program”, “Japanese Studies program”, “Technology College Program”, and “Special Training”. The graduate level scheme consists of “Research Student” program and “Teacher Training” program. This research focuses only on the Research student program in order to include only graduate degree holders.

In 1976 the first two Mongolian students received MEXT scholarship to study in Japan under Research Student program. In 2017, the total Mongolian grantees under seven types of MEXT scholarships reached 1411 (Japanese Embassy in Ulaanbaatar, 2017). 36% of them were research students, enrolled in the pathway program for a graduate degree while 19% were for undergraduate degree programs (see Table 3-4). The rest of the scholarships were for vocational schools, language, and culture, teacher training scholarship programs. This study focused only on Research Student scholarship alumni who graduated from Japanese graduate schools with Master’s and/or Ph.D. degrees.

The Research Student scholarship program selects students through two routes—through embassies in home countries and host universities in Japan. Table 3-4 shows that 299 Mongolian students received this scholarship through Embassy route. The embassy conducts the pre-selection in Mongolia through language tests (Japanese, English) followed by interviews. Applicants are not required to know the Japanese language. The interview committee consists of Embassy staff in charge of educational affairs and other professionals from Japan. The interview focuses on research proposals, leadership potentials, and the likelihood to enter top Japanese universities including language knowledge (English or Japanese), transcripts, professional experience in Mongolia, and applicants plan to apply their knowledge from Japan in Mongolia (Education and cultural attaché at Japanese Embassy in Ulaanbaatar, personal communication, August 2017). As a result, around 10-12 students have received Research Student scholarships every year (Japanese Embassy in Ulaanbaatar, 2017).

Table 3-3 *MEXT scholarship grantees from Mongolia by program type*¹

¹ Source: Japanese Embassy in Ulaanbaatar, Mongolia (2017).

*Parenthesis () represents where students were nominated from. Only several programs have options to be nominated from the host university.

Program name	Number of grantees (1976-2017)
Undergraduate program (recommended by the Embassy)	271
Undergraduate scholarship (recommended by the university)	4
Technical college (Embassy)	269
Technical college (college)	4
Vocational school	105
Research student (Embassy)	299
Research student (university)	218
Japanese language and culture research program (Embassy)	159
Japanese language culture research (university)	20
Teacher training program	62
Young Leaders Program	46
Total	1411

MEXT or JASSO did not officially track the alumni after the program completion up until 2013 (personal communication with JASSO, 2017). While we know how many students were first dispatched in each year, we do not know how many actually graduated. The program does not have a binding agreement with grantees that require them to return to their home country.

JDS scholarship

The Japanese Grant Aid for Human Resource Development Scholarship (hereinafter referred to as JDS scholarship) was first launched in 1999 for Uzbekistan and Laos under the name, “the Project for Human Resource Development Scholarship”, with an aim to develop human resources who would play core roles in the formulation and implementation of social and economic development policies (JDS website, 2018). The program became available for Mongolia in 2001. As of 2018, the program is available for 15 countries. In 2008, the project objective changed its target from individuals to state institution’s capacity building. Since then the project focused on supporting young government officials, who have potentials to shape the policy and development in their home institutions.

Every four years, the program reviews its program scheme including its selection process, target fields, host universities, academic programs, or student quota per program.

The target fields are developed in line with JICA's target areas and the development plan of the home country (JDS representative in Mongolia, personal communication, August 2017). Application eligibility requirements include an age limit between 25-39 years old, at least two-year full-time work experience at current position as a government employee, and good English language ability (determined by TOEFL score). The selection process consists of three-stage: document screening, interview by host university representatives, and final interview by committee members in Mongolia. Every year, around 20 applicants are selected with 2-4 students per field of study.

Selected students participate in mandatory orientation programs both in Mongolia and in Japan. The program also started to offer an on-award advising, monitoring, and networking events for students during their program in Japan. JDS scholarship has agreements with grantees requiring them to return to their institutions in the home country upon graduation. The program writes, 'Each fellow is expected to use knowledge, network, and experience gained in Japan for the betterment of your own country' (JDS website, 2018). Since 2001, when the program opened in Mongolia, 300 Mongolians studied in Japan under the JDS scholarship (JICA website, 2018).

Mongolian government loan-scholarship—MGL Scholarship

Since 1997 when the government of Mongolia launched loan-scholarship programs to prepare professionals in target fields of study in highly developed countries, 2076 Mongolian students received MGL scholarship (ELF, 2017). 1514 (73%) were for Master's and 251 (12%) students were for doctoral degrees. The Ministry of Education lists eligible fields of study to be sponsored. While the program rules and regulations were amended many times, it always targeted top ranking universities in world university rankings. The latest amendment (order# 271 passed on July 2013) states that the eligible applicants should have received admissions letter from top world universities listed in "Times Higher Education World University Rankings" (THE) or "Academic Ranking of World Universities" (ARWU). Those admitted to the top 20 universities in these lists can study in any field of choice while applicants admitted to top 21-100 universities need to be studying the top priority fields assigned by the Ministry of Education in each year. This requirement has an impact on the number of Mongolians to study in Japan. While 925 students studied in the US and 205 in the UK, only 81 Mongolians studied under this scholarship in Japan.

The selection process is administrated by the Ministry of Education which forms

a selection committee consisting of representatives from HEIs, research institutes as well as administrative officials. Once students are selected, the funding process is administered by another agency, “Education Loan Fund” (ELF) (former State Training Agency). ELF is in charge of extending the funding based on students’ academic performance. In addition, ELF is the main agency to track the graduates after program completion. Except for ELF’s director who sits in the selection committee, ELF staffs do not participate in main decision-making process due to a possible conflict of interest (personal communication, ELF, 2017).

Table 3-4 *Comparison of scholarship program schemes (as of 2017)*

Program	MEXT Scholarship	JDS Scholarship	MGL Scholarship
Main purpose	Strengthen bilateral relations through human resources development (MEXT, 2016b)	Strengthen organizational capacity through the preparation of human resources (JDS, 2018)	Development of skills and human resources in target fields (MECSS, 2017)
Funding source	Predominantly ODA	ODA (grant-in-aid)	National budget
Program level	Masters, Doctoral	Masters	Masters and Doctoral
Scholarship amount	Full*	Full*	Fixed amount (\$16,000 per year)
Age requirement	Under 35	25-39	-
Prior work experience	2 years or more	2 years or more in state organizations	3 years or more
Field of study	Any fields	Target fields of study	Target fields of study
Language of instruction	English/Japanese	English	English/Japanese
Post-graduation requirement	No requirement	Binding agreement /Mandatory return; 2-year work requirement/	A binding agreement with collateral / 5-year work requirement/
Number of grantees	299	300	81
Administered by	The Japanese embassy in Mongolia	JDS representative office in Ulaanbaatar	Ministry of Education, Mongolia

* Full includes living and learning costs as well as return air tickets

Once selected, all scholarship students conclude trilateral contracts with the Ministry of Education and the “sending” state organization where students are expected to work after graduation. Most of these “sending” organizations were ministries, especially prior to 2011. The contract demands collateral either in grantees’ or their relatives’ names. The collateral should be an immovable property with the market value equal to the scholarship amount. If graduates fail to return to Mongolia or work efficiently in state organizations for five years, they have to pay back the scholarship amount; thus, calling the program as “loan”. However, students do not generally pay back the loan amount; in other words, the “loan” or paying back is to leverage students to return and work in Mongolia. In addition, students may postpone their return to the home country in order to pursue further education or internship opportunities after notifying the regulating agency, Education Development Center (ELF, 2017). Besides forming contracts, scholars do not receive any orientation, training or other supports for successful completion of their programs. MGL scholarship also does not systematically track the grantees and graduates.

All three programs aim to prepare human resources for the home country and align with the Human Capital discourse—to prepare professionals in target fields whose spillover effect would contribute to their communities, institutions in Mongolia. On the other hand, the Japanese government scholarship aims to prepare pro-Japanese leaders through human resource development aids. MEXT indicated in the strategic plan for the recruitment of highly skilled international students, that they aim to select candidates with leadership attributes who are likely to go to influential positions in their home country after their programs (MEXT, 2016b).

Hart (2017) noted that alumni’s contribution to the economic and social development in their home countries will increase alumni’s visibility and influence in the country and increase the soft power for the foreign government as their achievements are often linked to their education. While Japanese government scholarship has dual motives to both foster pro-Japanese leaders and contribute to the receiving country’s self-help (Sato, 2005; Yamada, 2016), this study mainly focused on alumni learning experience and their perceived contributions in home country development. The findings and discussion chapters that follow the Methodology chapter will present how Mongolian alumni perceived their role in home country development.

4. Chapter Four. Methodology

Through sequential exploratory mixed methods, this study aimed to 1) explore the phenomenon of how alumni perceive their international scholarship experience in Japan and how that was translated to their post-scholarship experience 2) identify any differences or similarities in the learning process and post-scholarship trajectories by scholarship program types and conditions. The study consisted of three phases—qualitative phenomenological phase, survey study, and follow up interviews. This chapter describes the research paradigm, methodological approach, methods and instrumentation, participant recruitment and selection, data collection process, analysis, validity, and ethical concerns.

4.1. Research paradigm

This study design assumed a pragmatist stance or paradigm. Pragmatism is driven by the research problem, oriented towards the outcome of research, interested in determining the meaning of things (Johnson and Onwuegbuzie, 2006). It emphasizes communication and shared meaning-making (e.g. among constructivists and post-positivists) in order to create practical solutions to social problems (Shannon-Baker, 2016). In earlier literature (Greene, 2007) the pragmatic perspectives of research were categorized as a form of research stance, particularly suitable for mixed methods research. However, in recent years, the pragmatism is increasingly viewed as a new research paradigm. Morgan (2014) warns about seeing pragmatism as a “what works” approach to social inquiry and emphasizes the importance of understanding the philosophical aspect of pragmatism. Although there are many forms of pragmatism as a philosophy, the following list presents general characteristics of pragmatism based on Creswell (2014) and Morgan (2007, 2014):

- Pragmatism is not committed to any one system of philosophy and reality. While post-positivists believe that the world exists apart from our understanding of it, constructivists claim that the world is constructed by our conceptions of it. However, for pragmatists, such as John Dewey, these two assertions are equally important claims about the nature of human experience. “On one hand, our experiences in the world are necessarily constrained by the nature of that world; on the other hand, our understanding of the world is inherently limited to our interpretations of our experiences”. (Morgan, 2014; p. 1048)

- Truth is contextual, temporal, and related to the action. It is not based on a duality between reality independent of the mind or within the mind. Thus, in mixed methods research, investigators use both quantitative and qualitative data because they work to provide the best understanding of a research problem.
- The pragmatist researchers look to what and how to research based on the intended consequences—where they want to go with it.
- Individual researchers have freedom of choice. In this way, researchers are free to choose the methods, techniques, and procedures of research that best meet their needs and purposes.
- Pragmatists agree that research always occurs in social, historical, political, and other contexts.
- Thus, for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis. (Creswell, 2014, p.39-40)

Although Morgan (2014) claims that research of all types of methodological approach—qualitative, quantitative, or mixed methods can be situated in pragmatic paradigm framework, most studies under this paradigm are mixed methodology studies. This study also employed mixed methods to approach research questions. In this study, I acknowledged the factors of historical, economic and political contexts of Japan and Mongolia at different times--and included such consideration in interview questions and data analysis, as well as interpretation and discussion section. While the main focus of the study is to help policymakers, practitioners, and researchers understand the phenomena from alumni's perspectives, it also aimed to generate suggestions for ways to increase the potential contributions that alumni can make to the socio-economic development of Mongolia.

4.2. Methodological Approach

Situated in the pragmatist paradigm, the overall research employed mixed methods approach in order to explore the holistic experience of Mongolian alumni both in-depth and in extent across three scholarship programs. Creswell and Clark (2007) defined mixed methods research as the combination of quantitative and qualitative approaches that provide a better understanding of research problems than either approach alone. Johnson, Onwuebuzie, & Turner (2007) offered more detailed definition of mixed methods approach,

mixed methods research is an intellectual and practical synthesis based on qualitative and quantitative research...It recognizes the importance of traditional quantitative and qualitative research but also a powerful third paradigm choice that often will provide the most informative, complete, balanced, and useful research results...[it] (a) partners with the philosophy of pragmatism in one of its forms (left, right, middle); (b) follows the logic of mixed methods research; (c) relies on qualitative and quantitative viewpoints, data collection, analysis, and inference techniques combined according to the logic of mixed methods research to address one's research question(s); and (d) is cognizant, appreciative, and inclusive of local and broader sociopolitical realities, resources, and needs. (p. 129)

In other words, mixed methods study is not just combination of quantitative and qualitative methods—it is a purposeful synthesis of approaches holistic investigation of research problems with intentional development of research design, instruments, data collection methods, analysis, and interpretation.

Greene (2007) provided five main purposes of mixed methods research. These are *triangulation* (convergence, corroboration, and correspondence of results from multiple methods to measure the same conceptualization of the same phenomena), *complementary* (different facets of the same complex phenomenon to broaden, elaborate, and deepen the interpretations), *development* (implemented sequentially to better understand the phenomena by capitalizing on inherent method strengths), *initiation* (evoking paradox, contradiction, divergence to generate new perspectives by employing significantly different methods in stance, form, perspective), and *expansion* (different methods are used to assess different phenomena to expand the scope and range of study).

The current study employed mixed methods for three main purposes: *expansion*, *development*, and *complementary*. First of all, the study aimed to understand not only the learning process of alumni but also how that relates to their post-scholarship experiences and their concept of “giving back”. In other words, the study employed different methods to explore and assess different aspects of phenomena—learning process and post-program aspects.

The second purpose was *development*—sequential use of data from one method to plan and develop another method. In order to understand the phenomena through alumni perspectives and then to see if there are any differences or similarities by their scholarship types and other demographic characteristics, the findings from the first stage were

intentionally utilized to develop the second stage. At last, the study had a complimentary purpose as follow up interviews were utilized to explore different aspects of the post-graduation trajectories.

While mixed methods approach makes it possible to explore the focal point both in-depth and in extent, it requires time, resources, and expertise in both quantitative and qualitative methodologies. Mixed methods scholars often consider these facts before deciding to employ mixed methods design. In this case, it was feasible for the researcher to conduct mixed methods research due to the small population size, relative convenience to recruit participants, researcher's background knowledge and experience related to the research topic.

4.3. Research Design: Sequential Exploratory Mixed Methods Design

This study used an exploratory sequential mixed methods design (QUAL-quan) (Creswell, 2009) to explore the phenomenon in detail and then to test the prevalence of the findings and make comparisons. Creswell (2009) described the exploratory sequential approach as, “design in which the researcher first begins by exploring with qualitative data and analysis and then uses the findings in a second quantitative phase...the intent of the strategy is to develop better measurements with specific samples of populations and to see if data from a few individuals can be generalized to a large sample of a population” (p. 276). There are two main types within this design, as Creswell (2014) and others (Morgan, 1998; Morse, 1991) have indicated. The first type aims to develop a quantitative instrument when the variables are unknown (qual-QUAN). In this type, the researcher explores the phenomena in order to develop certain variables to use in the instrument. Here, the emphasis is on the second phase, a valid quantitative instrument development while the qualitative part plays a secondary role to identify the variables. On the other hand, the second type aims to understand the phenomena and then see if findings apply among the wider population (QUAL-quan). This type is useful especially when there is no guiding framework or theory to explore the phenomenon. Thus, the emphasis is on qualitative phase to explore the phenomena rather than the second phase. The diagram by Johnson and Onwuegbuzie (2004) presents the different types of mixed methods design with ranging emphasis on either or both qualitative and quantitative phases (Figure 4-1).

This study utilized the QUAL-quan exploratory sequential design with a priority on the first qualitative phase for three reasons. 1. The exploratory design is appropriate to examine an under-studied phenomenon, such as the government funded Mongolian international students and alumni. While studies on international scholarship programs started to show the program outcomes at various levels from the individual level to societal, there is a limited study on the learning process, and how it can translate to their post-scholarship trajectories. 2. This design is most suitable to answer the research questions. To understand how alumni make meaning of their experience, it was important to have an in-depth

		Time Order Decision	
		Concurrent	Sequential
		QUAL + QUAN	QUAL → QUAN QUAN → QUAL
Paradigm Emphasis Decision	Dominant Status	QUAL + quan	QUAL → quan qual → QUAN
		QUAN + qual	QUAN → qual quan → QUAL

Note. "qual" stands for qualitative, "quan" stands for quantitative, "+" stands for concurrent, "→" stands for sequential, capital letters denote high priority or weight, and lower case letters denote lower priority or weight.

Figure 3-3 Mixed-method design matrix by Johnson & Onwuegbuzie, 2004

discussion with each alumnus and allow them to tell their stories. Therefore, the first qualitative phase used a phenomenological approach. 3. The quantitative survey made it possible to reach a wider population and make comparisons between different demographic qualities as well as scholarship programs. It was difficult to develop such an overall picture only with qualitative findings.

With an emphasis on understanding how alumni make meaning of their experience and then compare their experiences by scholarship programs and other demographic features, this study had three phases. The first phase was a phenomenological study with 24 alumni in Mongolia and abroad. The first phase of the study utilized a phenomenological study approach. This phenomenological approach was inspired by Schutz's (1967) theory of social phenomenology to explore the subjective experiences of alumni, their reflection on their learning process and post-scholarship trajectory, allowing them to make meaning of their experiences, and then to create judgments of these experiences. The scholarship alumni were

asked to reflect on their learning experience in Japan and to share important moments of learning that they value. Then they were asked to reflect on their experiences after completing their program and to share any moments or experiences of “giving back” to the home country.

In the second phase, a quantitative survey instrument was developed based on the qualitative findings and literature review. In this process, two previously existing research instruments were identified as relevant for this study and thus, relevant questions were adopted and modified with permission from the developers. This new survey was then reviewed by researchers working on Mongolian-Japanese student mobility, alumni association administrators in Mongolia. The pilot study was conducted on a sample of 46 current students in Japan. After adjustments, the survey was disseminated to the target group, the alumni. 101 alumni responded to the survey. Then in the third phase, a follow-up interview was administered with selected participants from the survey in order to expand the qualitative findings from the first phase and elaborate on survey findings. In addition, the qualitative and quantitative data were also merged in the discussion and interpretation of the study through the development of joint display where the data were compared side by side.

Timing. The study was conducted in a sequential order, from the qualitative phenomenological study to the quantitative survey phase followed by follow-up interviews. The three phases were connected, with the former one leading to the next phases. Figure 4-2 shows the timeframe of the study.

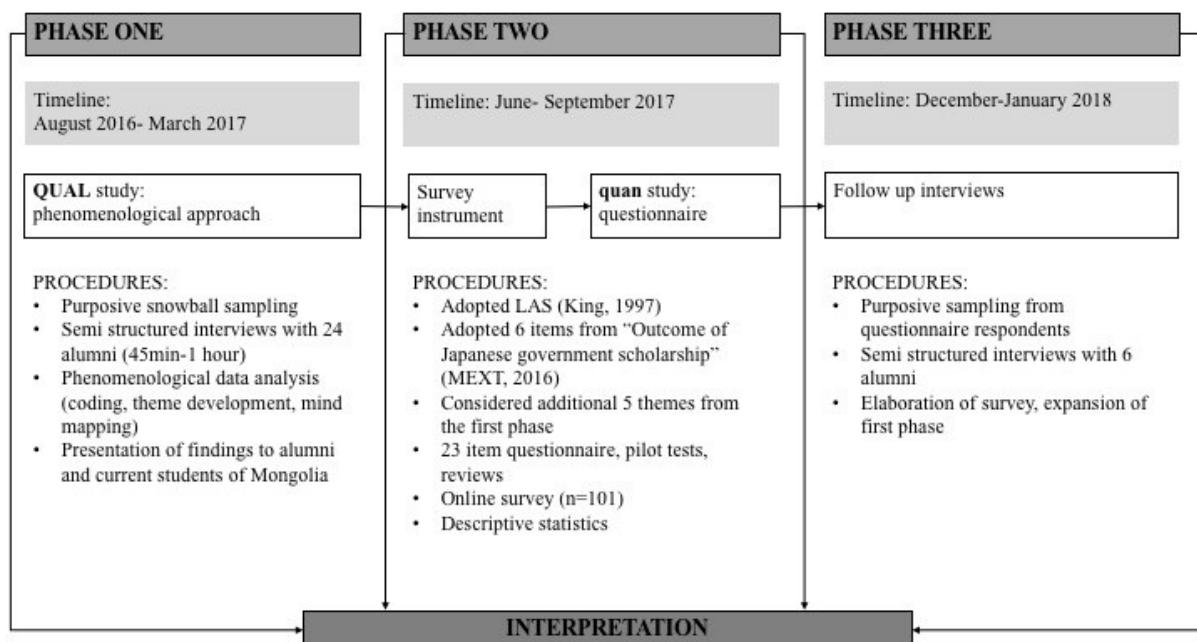


Figure 3-4 *Exploratory sequential mixed methods research design*

Researcher's Position. For mixed methods research, it is important to identify the researcher's position in the study. The researcher in this study took an insider role as a native Mongolian, a Japanese government scholarship student, and having a professional experience with scholarship programs and students for seven years. The lived experience of being a scholarship student sponsored by the Japanese government (MEXT) as well as the prior experience of being supported by US-Mongolian governments (Fulbright scholarship) or philanthropic international organization (Open Society Foundation) gave an insider's perspective and helped the researcher to connect with other alumni—which was important to collect data efficiently. Being a native Mongolian helped the researcher conduct both interviews and surveys in participants' native language allowing them to express their thoughts without any language barrier. While insider's position has merits such an increased possibility to collect rich data from higher number of alumni, there are also demerits. For example, participants may not fully explain what they mean with an assumption that the researcher would understand it, or the researcher can be biased during data analysis including over reliance on her own experience, or choosing areas that are more closely related to the researcher's experience. Thus, during the interview, researcher often asked participants to elaborate what they mean by certain phrases and give examples. In addition, the researcher reflected on her own beliefs and pre-assumptions, and attempted to concentrate on alumni's words during data analysis, and being aware of during the data analysis.

4.4. First phase: Phenomenological study

Methods and instruments. Interview data were collected through a series of semi-structured interviews. An interview schedule (Appendix B) was developed based on previous literature, and two pilot interviews with Mongolian graduate students in Japan who were supported by the Mongolian government. The interview schedule consisted of three main parts with possible probing questions: 1) their path to Japan—motivations and goals to study in Japan, and about scholarship application process; 2) their learning process in Japan, both academic and non-academic learning experience, about times when their way of thinking was challenged or times when they realized any personal, academic or other development; 3) their perception of government scholarship programs and alumni's role in home country development. The first part aimed to start the interview smoothly and let the participants start reflecting on their journey to Japan. The second part naturally led to the third part as they reflected how they used or could not use their knowledge and skills in Mongolia, what they

value or do not value from their experiences, and about their role in their community. The third part specifically asked about their experience of giving back to the home country as well as other alumni experiences. While these main parts gave a loose structure to the interview, the interview participants were encouraged to talk without interruption guided by probing questions. During the interview, the researcher took notes and oftentimes came back to their earlier comments to make connections or to elaborate.

The interview schedule and the consent form were developed in English. Then the researcher translated them into Mongolian. In order to ensure validity, the Mongolian translation was backward translated into English by a professional translator with no prior knowledge of this research. Adjustment to the Mongolian translation was made based on English backward translation.

Data Collection. Through purposive snowball sampling method, alumni from three scholarship programs were invited to participate in the interviews. In order to present diverse range of experiences as well as shared experiences across different fields, disciplines, or host universities, this study aimed to recruit alumni from all fields. The initial call to the study was disseminated through Japanese University Graduates' Association in Mongolia (JUGAMO), Association of Mongolian Students in Japan (YAMOH), as well as other social media pages and groups. Participants who met the following criteria were invited to interviews: 1) successfully completed their master's or doctoral degree in Japan under one of the scholarship programs; 2) received the scholarship prior to their departure to Japan; 3) graduated at least 2 years ago. Although the snowball sampling yielded around 30 alumni who wanted to participate in the interview, twenty-four alumni were able to give an interview. The other six either did not meet the criteria or could not make it to the appointment due to work emergency, internet connection failure, or other schedule conflicts. The researcher did not pursue these potential participants after two, three attempts to reschedule the appointment because there were already enough data generated from the interviews with twenty-four alumni.

Most meetings were held in Mongolia in August-December, 2016. Only 4 alumni were living abroad while the rest were in Mongolia. Each interview lasted from 45 minutes to an hour and a half. Prior to interviews, potential participants received the description of the interview and the general purpose of the study (APPENDIX B) and the informed consent form (APPENDIX C) together with a description about the research. All interview was a one-on-one session, mostly face-to-face, in Mongolia. The participants chose the location convenient for them. This included their office rooms, coffee shops, restaurants, parks,

laboratories, lecture rooms, and other meeting rooms. In some cases, the interviews were conducted through online calls when the alumni were in foreign countries or when the interview was made after the researcher went back to Japan. All online interviews were made through video calls.

Table 3-5 *Demographic information of interviewees*

	Number (%)	Mean	Median	Range
Gender				
Female	14 (58)			
Male	10 (42)			
Age				
Age in Japan (at the time of graduation)		32	32	Min: 26, Max: 36
Age at the time of interview		37	37	Min: 28, Max: 45
Degree				
Masters	11 (46)			
PhD	13 (54)			
Scholarship program				
MEXT	10 (42)			
JDS	6 (25)			
MGL	8 (33)			
Length of stay in Japan		4.1	4	Min: 2, Max: 10
Years since graduation		5.3	4	Min: 2, Max: 16
Field of Study				
Health Science	6 (25)			
Social Science	5 (21)			
Public Policy and Law	5 (21)			
Natural Science	4 (17)			
Engineering	2 (8)			
Humanities	1 (4)			
Agriculture	1 (4)			

On the interview day, the researcher reviewed the purpose of the study and the consent form together with the participant. All participants except one agreed to have the interview recorded. When the recording was not consented, the researcher relied on her notes taken during and after the interview session.

During the interview, alumni reflected back on their journey to Japan and their post-graduation experiences. For many alumni, it meant more than a decade-long journey to

reflect. While some alumni had thought over their experiences and spent time thinking what their experiences meant for them, others said it was maybe the first time they were intentionally reflecting on those experiences. Alumni who had previously reflected on their experiences were quick in describing moments that were important for their learning while the rest spent more time going through their memories.

In addition, three scholarship administrators in Mongolia were interviewed in summer 2017 to collect more background information on scholarship schemes, goals, and objectives, selection procedures, program evaluations, any activities or policies towards alumni. This information is used only for background information.

Data analysis. All interviews were transcribed and then translated into English for analysis. Then, each translation was compared to the originals for accuracy and necessary edits were made. These transcription, translation and verification processes helped the researcher to get immersed in the interview and understand the meanings alumni made that the researcher did not catch during the interview or initial reading processes.

Following the phenomenological approach, the data analysis aimed to understand and recognize meaningful themes for alumni in their own voices and experiences. For this purpose, all transcripts were coded using open and axial coding method. Through open coding, the researcher allowed codes to emerge without being restrained by existing theories or the researcher's preconceived notions. In other words, in this initial process, concepts and ideas in the data were coded or labeled trying not to impose the researcher's perceptions. Thus, during this process, it was important for the researcher to be reflexive and self-aware of her notions and perceptions and that her perspectives are likely to influence the choice of coding.

Then axial coding was used to explore the relationship between codes across the data sets. During this process, some codes were combined, some were discarded and the key codes were identified. During this process, the researcher was mindful of previous literature, the research questions and the conceptual framework analyzing the data both inductively and deductively. The key codes were used to build a list of categories. In this process, the researcher developed an initial codebook in an excel sheet putting together the categories, codes, their descriptions, as well as "meaningful units" from the supporting passages. These meaningful units were short excerpts from the passages that contained the key expressions supportive of codes and categories.

In this process, excel sheets were replaced by the usage of nVivo 11 software to increase the efficiency of data management. The nVivo software allowed me to see the

density of each code and category across datasets while making it easier to go back and forward between coded parts and the transcripts, develop demographic cases, and thematic sets. This way, it was possible to focus on areas that were shared by most participants and that answered the research questions.

After the initial development of themes, the researcher checked the raw data again to verify whether the data supported the thematic interpretations. In addition, by using simplemind+ application the “mind map” of codes and categories were developed (see Appendix D) to help map out main themes, categories, and their supportive codes. During this process, some initial thematic areas that did not answer the research questions, or were not very supported by the datasets were eliminated.

4.5. Second phase: Online survey

The online survey aimed to 1) capture the extent of transformative learning experience among bigger group of alumni and factors that influenced this experience; 2) post-graduation trajectories of alumni including whether they find their experience in Japan useful to their post-graduation career, if so in which areas; 3) ways in which alumni contribute to home country development; challenges and support they face; and finally, 4) if there is any statistical difference in these above-mentioned areas by scholarship programs.

Instruments. The themes from the phenomenological study and the previous literature shaped the development of an online questionnaire. The following scheme shows the questionnaire development process.

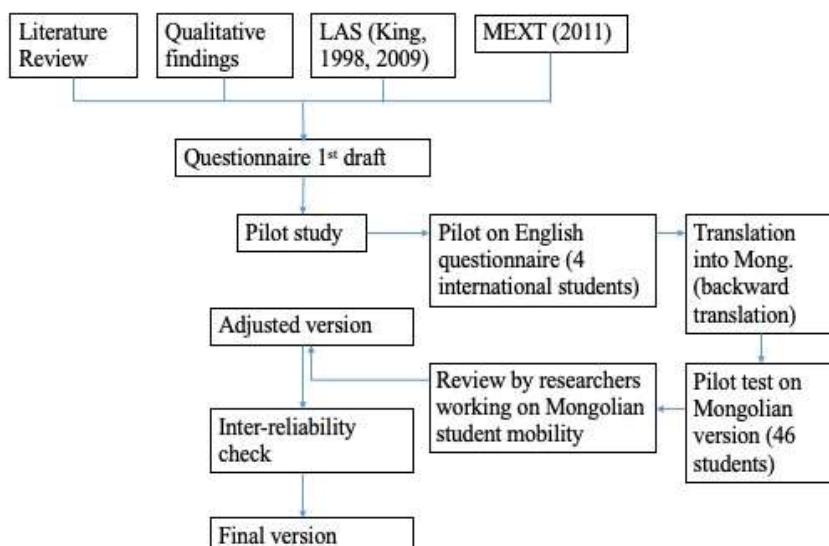


Figure 3-5 *Questionnaire development scheme*

Two main questionnaires were identified as relevant to the study—1) Kathleen King’s Learning Activities Survey (1998, 2009) that test students’ perspective transformation and learning activities; 2) Evaluation study on MEXT scholarship alumni, “Outcome of Japanese Government Scholarship Program” (MEXT, 2011). Upon acquiring permission to use these instruments, the researcher combined items from these studies and modified them based on literature review and the findings from the first phase.

Pilot tests consisted of reviews by supervisors, researchers working on Mongolian student mobility, small-scale pilot test of English version of questionnaire (4 students), translation of questionnaire into Mongolian language, backward translation into English by third-party who does not have any knowledge of study; necessary changes in the Mongolian version; and finally, pilot test on sample of 46 current students.

The inter-reliability of questions with multiple choice questions (MC) and Likert scale questions

The final survey was estimated to take 15-20 minutes.

The questionnaire was cross-sectional, with data collected at one point in time rather than longitudinally. It was available online as most Mongolian population has an access to internet services even on their mobile phones. The questionnaire (Appendix E) had three main parts: I. demographic information II. Learning activities survey (King, 2009), III. perceived outcome of studying in Japan. The following sections explain each part of the questionnaire.

I. Demographic information (6 items)

This section asked basic demographic questions such as the current country of residence, age, sex, scholarship program, received a degree, and areas of studies.

II. Learning activities survey (3 items)

The Learning Activities Survey (LAS) was originally developed by King (2009) drawing on Mezirow’s perspective transformation theory (1978, 1981, 1995). The survey has been used in various higher education settings to assess students’ learning process and measure effects of different types of teaching methods on students’ learning in order to promote more transformative learning in higher education settings (Kumi-Yeboah, 2012; Stone, 2014). Identifying this questionnaire to be useful to further study alumni’s learning experience in Japan, the researcher obtained permission from Prof. King to modify the variables for learning activities and use the survey in the questionnaire (see Appendix F).

The main LAS questions (Q8, Q9) were adopted without any modification. However, the learning activities (Q10) were significantly modified based on the findings from the first phase. Here, the learning activities outside of the classroom (Q10.3), sociocultural factors of Japan (Q10.4), and work experience in Japan (Q10.5) were added based on the findings from the first phase. While the original survey intended to measure students' learning activities in higher education settings, this study had to look at students' international experience in Japan as a whole. Thus, the activities were expanded.

III. The outcome of scholarship program (14 items)

This section adopted 5 items from a previous study, "Outcome of the Japanese Government Scholarship Program" (MEXT, 2011) with permission from the developers (see Appendix G). These items included a general evaluation of their experience (Q6), alumni's current job positions (Q13, 14), post-scholarship activities (Q15), perceived usefulness of their study (Q16). One answer option for Q7 and two options for Q17 were added.

In addition, this section had 8 items developed based on the findings from the first phase. These were years since graduation (Q11), return to jobs prior to the study in Japan (Q12), areas and ways of contribution to home country (Q18, Q18a), challenges in applying their knowledge and skills for home country development (Q19), necessary support to overcome the challenge (Q20), questions about involvement in alumni associations (Q21-23). Table 4-2 shows the link between qualitative findings from the first phase and the questionnaire item development.

Table 3-6 *Joint Display of Qualitative Findings and Questionnaire Items*

Research questions	Qualitative findings	Questionnaire items
1. Learning experience in Japan	1. Alumni developed multiple perspectives and contextual understanding of different cultures	Q7 & Q8: Perspective Transformation
	2. Main factors that influenced to transformative experiences were <ul style="list-style-type: none"> • Living in Japan (observing Japanese social norms) • Academic challenges (supervisor and research works) • Work experiences 	Q9: learning activities
	3. Alumni also developed technical skills, intercultural communication, professional competencies	Q6: general perception of study abroad experience

2. Perceived contribution to Mongolia	1. Through job, part-time work, community service 2. Through social network 3. By being a role model	Q14: applying knowledge, skills, and network Q15: usefulness of study in Japan Q16: about areas of contribution Q17: ways of contribution
3. Perceived challenges	1. The mismatch between learning experience and home country context 2. Politics and precarious job 3. Poor work environment 4. Difficulty to reach decision making level 5. Lack of policy to support alumni's post-graduation activities	Q18: Perceived challenges Q19: Recommended support

In order to ensure that the multiple-choice items and the Likert scale items were consistent within the question, Cronbach's alpha inter-reliability test was conducted on SPSS v.24. Coefficient above 0.5 is considered reliable (Perry et al., 2004). Although there is a debate on cut off point for reliability across disciplines, 0.5-0.7 is considered as moderate, 0.7-0.9 as high, 0.9 and above as excellent reliability. A high coefficient means high consistency of items or high correlations.

Table 3-7 *Cronbach's alpha coefficients: Inter reliability check of MC and Likert scale questions*

#	Question	Number of items within questions	Cronbach's alpha coefficient
Q6	Perception of study abroad experience	8*	0.628
Q7	Perspective Transformation (King, 2009)	12*	0.685
Q9.	Learning activities		
Q9a	Person	5*	0.7
Q9b	Course assignment	7*	0.796
Q9c	Out of class activities	7*	0.868
Q9d	Socio-cultural activities outside of school	6*	0.687
Q9e	Work experience	4*	0.506

Q14	The outcome of study abroad experience	13*	0.628
Q15	Usefulness of study abroad experience	10**	0.790
Q16	Perceived areas of contribution to Mongolia	12*	0.554
Q17	Ways of contribution	8*	0.546
Q18	Perceived challenges	4*	0.777
Q19	Recommended support	4*	0.753

Note: * refers to multiple choice questions; ** Likert scale questions

Data Collection: Sampling. The questionnaire was uploaded online at Google Forms together with short descriptions of the study, concerns regarding information confidentiality, expected time to complete the survey, and contact information of the investigator and her supervisor. Alumni were invited through emails sent by JDS and Mongolian government scholarship administrators, JUGAMO alumni associations (that include all Mongolian alumni from Japanese universities), and alumni's social media groups. JDS office in Ulaanbaatar sent the invitation to 244 alumni and 41 alumni responded with a response rate of 16.8%. The Education Loan Fund that administer the MGL scholarship program did not have grantees' email addresses but only phone numbers. Often the grantees phone number had changed making it difficult to reach them. Thus, through phone calls, email addresses of only 39 MGL alumni had been collected. Twenty-three alumni responded with a response rate of 58.9%. As for MEXT scholarship, there the scholarship program administrators in Ulaanbaatar did not have alumni contacts. Neither the Japanese Embassy in Ulaanbaatar nor the JASSO could provide with contact information of alumni. Thus, MEXT alumni were mostly recruited through JUGAMO association's call through emails to registered alumni and their social media page on Facebook. Total of 37 MEXT alumni responded the survey. Overall, 101 alumni responded to the survey after two calls (table 4-4). The questionnaire was open for one month from September 1 to September 30th, 2017.

Table 3-8 *Demographic information of survey respondents*

Demographic information	MEXT (n=37)	JDS (n=41)	MGL (n=23)	Total (n=101)
Location				
Mongolia	29	21	37	87
Japan	5	2	3	10
USA	3	0	1	4
Age				
26-30	10	3	5	19
31-35	16	12	5	33

36-40	7	18	9	34
41-45	3	6	3	11
46-50	1	2	1	4
Gender				
Female	23	26	14	63
Male	14	15	9	38
Degree				
PhD	17	-	10	27
Masters	20	41	13	74
Job				
Gov.	3	16	6	25
Private	15	5	3	23
Academia	14	13	14	41
Other	5	7	0	12
Area of study				
Social science	18	17	8	43
Natural science	6	19	6	31
Medical science	7	1	4	12
Other	6	4	5	15

Data analysis. All survey data, except answers to the open-ended questions, was entered to the SPSS v.24 program. First, descriptive statistics such as frequency distribution and measures of association (mean, mode, and median) were used to portray the overall results. Then chi-square cross-tabulation test was used to 1) measure the perspective transformation of alumni, compare the level of perspective transformation with the learning activities, and 2) compare alumni's post-graduation track such as jobs, relationship with Japan, perceived contribution to the home country by the level of perspective transformation, scholarship programs, and other demographic factors. Then Cramer's *V* value was calculated to measure the significance of the difference based on Cohen's (1988) table. Cohen (1988, p. 222) provided the following guidance to understand the effect size of Cramer's *V* value depending on the chi-square tests degree of freedom (df):

df=1 (small=.10, medium=.30, large=.50)
 df=2 (small=.07, medium=.21, large=.35)
 df=3 (small=.06, medium=.17, large=.29)
 df=4 (small=.05, medium=.15, large=.25)
 df=5 (small=.05, medium=.13, large=.22)

In the analysis of perspective transformation, Glisczinski's (2005) model of four quadrants was used. In his dissertation study, he used King's (2009) Learning Activities Survey, the same survey used in this study. In his analysis, Glisczinski (2005) adopted 4 quadrants from Herber's study drawing on 1) Disorienting Dilemmas, 2) Critical Reflection, 3) Reconceptualization of Behavior, 4) Action or Behaviour Change. These four quadrants

present the foundational components of transformative learning akin to Kolb's (2014) experiential learning cycle, which consists of cycles of concrete experiences, reflection, abstract conceptualization, and active experimentation.

Table 3-9 *Glisczinski's quadrants (2005) and King's LAS questions (2009)*

Quadrants	Question # in this study	Question (yes/no)
Q1: A disorienting dilemma (average of 1a; 1b)	Q7PT1a	I had an experience that caused me to question the way I normally act
	Q7PT1b	I had an experience that caused me to question my ideas about social roles (examples of social roles include what a mother or father should do)
Q2: Critical reflection (average of 1c, g)	Q7PT1c	As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations
	Q7PT1d	Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations
Q3: Reconceptualization of behavior	Q7PT1g	I felt uncomfortable with traditional social expectations
	Q7PT1e	I realized that other people also questioned their beliefs
	Q7PT1f	I thought about acting in a different way from my usual beliefs and roles
	Q7PT1i	I tried to figure out a way to adopt these new ways of acting
Q4: Action or behavior change	Q7PT1j	I gathered the information I needed to adopt these new ways of acting
	Q7PT1h	I tried out new roles so that I would become more comfortable or confident in them
	Q7PT1k	I began to think about the reactions and feedback from my new behavior
	Q7PT1l	I took action and adopted these new ways of acting

4.6. The third phase: Follow up interviews

Data collection. Follow-up interviews were conducted with selected respondents to clarify and validate the survey results as well as the findings of the first phase. The online survey questionnaire collected email addresses of respondents who indicated that they would be interested in follow-up interviews. Forty five percent of participants signed up for follow up interview. From these respondents, those with high scores on learning activities survey, those with long years of post-scholarship experience were invited to take part in follow-up interviews. As a result, ten alumni were invited to participate and six alumni—two per scholarship program were interviewed. The other four alumni's work schedule and timing did not work for an interview. (See table 4.6 for demographic information of follow-up interview participants).

Table 3-10 *Demographic information of follow up interviewees*

Pseudonym	Gender	Age	Study period	Area of study	Years since graduation	Degree	
Az	Female	40	2 years	Economics	12 years	Master	JDS
Sara	Female	39	2 years	Public Health	7 years	Masters	JDS
Erdene	Male	37	3 years	Engineering	7 years	Masters	MGL
Aldar	Male	35	4 years	Environmental	2 years	PhD	MGL
Dondog	Male	32	4 years	Medical science	4 years	PhD	MEXT
Uyanga	Female	30	2 years	IR	6 years	Masters	MEXT

This follow up interview was conducted in December 2017. The interview procedure was similar to the first phase. The alumni received the informed consent form together with a short description of the study. Each interview was conducted online via skype or facebook video calls. Each interview lasted around 45 minutes. All interviews were conducted in the Mongolian language. During interviews, alumni were asked to elaborate on their survey responses while being encouraged to talk more about the topic.

Data analysis. All interviews were transcribed. Because there was a technical issue during two interviews, the written transcripts were sent to two participants. Both participants reviewed the transcript and made few edits to the wordings of their responses, and sometimes, expanded their responses making their answers clearer. The transcripts were not translated into English as a whole, but only the salient parts were translated after coding the data. All transcripts were coded and categorized. The codebook from the first phase and the survey findings shaped the coding of the follow-up data sets. The findings from the follow-up interview were used to validate and expand the finding from the first phase.

4.7. Validity and reliability issues.

The validity of the study was ensured in four ways. 1. The participants were recruited through multiple sources such as alumni association listserv, social media pages and through previous interviewees. In addition, purposive sampling was used to present diverse demographic groups and different experiences by specifically asking for alumni with certain characteristics (such as scholarship type, the area of study, current jobs). 2. Both semi-structured interview and the online questionnaire involved pilot studies. In addition, the questionnaire was reviewed by a researcher working on Mongolian-Japan student mobility.

The constructive feedback from the participants and the researcher led to a significant adjustment in interview schedule and questionnaire. 3. The findings from the first phase, the phenomenological study, were presented to a) Mongolian graduate students in Japan and b) the sample graduates of JUGAMO alumni association in Mongolia. The first presentation took a form of an official research presentation at the First Research Conference of Mongolian Doctoral Students and Researchers in Japan. The investigator made a presentation and conducted a roundtable discussion with current graduate students in Japan. The second presentation was completed during a board meeting of JUGAMO. The association requested to learn about the research findings when they agreed to disseminate the online questionnaire to their alumni. 4. The findings from each phase were compared side by side in a joint display format. The joint display is presented in the discussion and interpretation section of the study.

4.8. Ethical Consideration

The study was conducted upon gaining an ethical approval from the Research Ethics Committee of Kyosei Studies, Graduate School of Human Sciences, Osaka University (registration number: OUKS1605) (Appendix H). The Ethical Codes of Graduate School of Human Sciences, Osaka University and the Australian Association for Research in Education (AARE) Code of Ethics were followed throughout the study. Participants' personal information such as name, host university, workplace, contact information or any other information that can reveal the participants' identity are kept confidential. All names presented in this study are pseudonyms. All electronic data was secured on one computer which only the investigator accessed. The data collected will be used only for this research. In the case of other usages, first participants' consent will be necessary.

All participants were adults and took part in this study on a voluntary basis; the informed consent form stated that no-monetary or non-monetary gratitude will be provided for participation in the study. The investigator explained the purpose and intended use of their information before making an appointment with prospective participants. The interview participants were provided with the same explanations before they started the survey. Only when interview participants provided consent for audio recording, their talk was taped. All interview participants received the copy of their informed consent form that explained their rights to withdraw from the study anytime even after giving their interviews. The survey participants had a choice to receive the copy of their survey.

Chapter Five. Findings from the Qualitative Study

This chapter reports main themes that emerged from the first phase. This phase aimed to 1) explore how Mongolian alumni, graduated from Japanese graduate schools under government-sponsored scholarship programs make meaning of their learning experience in Japan and how that is translated to their post-graduation career and life; 2) understand how they perceive their role in home country development; 3) elaborate types of challenges that hinder alumni's role in home country development as well as any necessary supports to effectively use alumni.

The chapter first introduces the participants, then moving on to alumni's interpretation of their experience both during and after their study. For many alumni, studying in Japan was an eye-opening transformative experience at different levels—at an academic, professional, social, or personal level. On the other hand, some alumni viewed studying in Japan as a way of gaining credentials that opened doors to their career, but not necessarily a transformative experience.

Although alumni were highly motivated to apply their experiences in their institutions, workplace, or communities and many were successful, their endeavors faced with structural and institutional challenges that hindered their career prospect and discouraged them to take actions in Mongolia. The chapter ends with recommendations from alumni that can support not only their works but also improve the efficiency of these scholarship programs to the home country development.

5.1. Brief profile of interview participants

The alumni who participated in this study had an extensive education and work history in Mongolia prior to their studies in Japan. Although few of them originally came from rural areas of Mongolia, all of them were working in Ulaanbaatar, the capital city of Mongolia at the time of scholarship program selection. As the Table 5-1 shows, they were working at national research centers, government implementing agencies, ministries, or national universities when they applied for the programs.

Table 5-1 *Demographic Information of Interview Participants*

	Pseud.	Gender	Age at the time of interview	Duration of study	Area of study	Years since grad.	Degree	Age in Japan
JDS Sch.	Urna	Female	31	2	Environmental studies	2	Masters	29
	Gerel	Female	43	3	Public Policy	9	Masters	34
	Mandakh	Female	36	2	Social science	4	Masters	32
	Badral	Male	41	2	Social science	11	Masters	30
	Urgaa	Male	36	2	Natural science	2	Masters	34
	Zaya	Female	37	2	Public policy	2	Masters	35
MEXT Sch.	Amar	Male	44	4	Health science	8	PhD	36
	Bayar	Male	28	2	Law	2	Masters	26
	Aagii	Male	45	10	Agriculture	16	Masters & PhD	29
	Ganbat	Male	38	5	Law	6	PhD	32
	Maral	Female	43	6	Engineering	13	PhD	30
	Nyam	Male	41	3	Public Policy	6	Masters	35
	Solongo	Female	39	4	Health science	4	PhD	35
	Delger	Male	30	3	Social science	2	Masters	28
	Tseren	Female	41	3	Humanities	10	Masters	31
	Urnuhk	Female	38	4	Health science	5	PhD	33
MGL Sch.	Baatar	Male	45	5	Health science	4	PhD	41
	Anar	Female	36	10	Social science	2	PhD	34
	Dulam	Female	32	4	Health science	2	PhD	30
	Nergui	Female	33	6	Health science	3	PhD	30
	Tsetseg	Female	38	6	Natural science	5	PhD	33
	Tuul	Female	33	4	Natural science	2	PhD	31
	Bilguun	Male	35	3	Social science	5	Masters	30
	Javha	Female	36	4	Natural science	2	PhD	34

Prior to their study in Japan, some of them had visited other foreign countries for conferences, professional or language training programs, and sometimes, full degree programs. Those who completed their first degrees in Mongolia had graduated from the top national universities—none of them had graduated from low quality private universities. Although without scholarship support, many could not have studied in a developed country,

in Mongolian context these alumni could be regarded professional middle class. The literature on international sojourners often regards the international or exchange students as a privileged group of students who could afford the time and expenses of study abroad. It was also the case in other government scholarship programs. For example, the Australia Awards selects their recipients from a pool of already elite candidates, who are qualified to enter Australian university at a Masters level (Gosling, 2008). Similarly, the participants in the study were already qualified to enter Japanese universities, with their academic record and language qualifications.

Studying in a developed country was expected of them or even considered as a norm for most alumni if they wanted to advance their career and status. Their professional peers and supervisors or family members had studied abroad, or they perceived that their work required new knowledge, know-how and networks to acquire from highly developed countries and to build international networks.

During the socialist period, the best, the brightest and often times the children of elites or so-called “the intellectual families” went to study in the Soviet Union before the 1990s. After the revolution, the destination for study abroad shifted to western or previously called “capitalist” countries. Although it was much more expensive to study in advanced market economies, the expectation and wish to study and live in a foreign country did not disappear with the collapse of socialism. This context coupled with an experience in various short-term training programs and conferences inspired many to pursue a degree abroad.

While those who had high Japanese language skills or personal and professional network with Japan had already decided to study in Japan before applying for scholarship programs, many others chose Japan because they were selected to receive the scholarship. This latter half of students had considered other countries such as the USA and Germany and had applied for scholarship programs for these countries. However, one of the reasons for choosing Japan was that they were not accepted to the scholarship programs or the universities in other countries, or the scholarship offer to study in Japan was the first one they received. Among the interview participants, 12 of them studied in English program while eight studied in Japanese. Those who studied in Japanese knew the language prior to their arrival to Japan except Anar (MGL alumna) who had to learn Japanese after arriving in Japan and then continued her program in Japanese.

While their individual situations differed, most participants had a high expectation to learn from Japan and use it to advance their career and socioeconomic status. The scholarship program applications required clear goals and ideas for their studies in Japan; thus, many

recalled having clear motivations for their study but a vague idea of how they would actually utilize them in Mongolia. These motivations to learn from Japan and expand their career prospects shaped their learning experience in Japan.

5.2. How did alumni make meaning of their experience in Japan?

Alumni from the early years of Mongolia-Japan exchange in the 1990s viewed that studying in Japan was a life-changing experience. Aagii, who was one of the first alumni to study in Japan in the early 1990s talked about how much he was amazed at technological advancement in Japan seeing a copy machine or a fax machine for the first time. While in Mongolia students at that time spent much time copying their teachers' notes by hand, he saw that copy machines could save much time that can be used for other learning activities. Another student, Maral, a graduate from late 1990s, said: "the gap between Mongolia and Japan was much bigger in 1990s than it is today, Mongolia was a socialist country just transitioning to democracy then." Coming from socialist social structure and ideology, the early graduates had the most transformative experience that expanded and changed their ways of looking at the world. Badral, one of the early JDS alumni said,

The people who were educated during socialist period all have similar mindsets, see things from similar angles, molded to same thoughts and beliefs. They take orders and do not question the orders. At that time, coming from such an environment where people see things from similar perspectives to a developed country with the market economic system, I could see how Mongolian economy would be able to change and develop in the future. (Badral, JDS alumnus)

As Mongolia was just shifting to a market economy, an experience in a society that had been operating in a market economy for years gave Badral ideas about how the market works. However, after around 2005 alumni had a less shocking experience coming to Japan as many had a prior experience of visiting other countries, some had worked with foreign experts or teachers, and in general, they had a better idea about Japan.

When asked how they understand their experience in Japan and what they value from their experience on personal and professional levels, alumni talked about the impact on their family, especially their children, development of multiple perspectives and contextual understandings about different cultural norms and building professional, technical competencies, skills, important networks, and the graduate degree itself. The following sections present these areas that were highly important for the alumni from their experience abroad—in other words, an individual level outcome.

5.2.1. Development of Multiple Perspectives and Contextual Understanding

Most alumni thought that they developed multiple perspectives and built a contextual understanding of two or more cultures during their studies. The process of such transformative learning differed among alumni. Some alumni actively looked for experiences to answer the questions they had prior to their studies in Japan, some faced challenging experiences that pushed them to make reflections which led to dialogue and actions, and others neither searched for nor faced a challenging experience. The latter type of alumni had a strong understanding of who they are but they were also interested in new experiences. As a result, few of them experienced transformative learning as their experience in Japan accumulated slowly. Applying Charaniya's (2012) category of the entryway to transformative learning in a cultural context, these processes were described as 1) diving in, 2) being pushed in, or 3) testing the water.

Diving in: Constant observation and reflection. These alumni recalled that they actively observed how people live in Japan, any positive sides that they can acquire and learn. They not only observed the norms and values in the society but also actively reflected on these positive sides to make comparisons to their prior experiences, in the Mongolian context. Charaniya (2012) described divers as "individuals who have been preparing transformation throughout their lives and take advantage of an integrating circumstance that drew them in 'to greater depths of understanding and personal growth'" (p. 234). Similarly, these alumni dived into the Japanese society to learn more about this culture and most importantly observed areas to adopt. Zaya (JDS alumna), Tsetseg (MGL alumna), and Urgaa (JDS alumnus) were good examples of diving in. Zaya (JDS alumna) talked about her observations,

I observed how my neighbours took care of their environment, how they separated their garbage, how they cleaned the shared spaces...and not bothering the neighbors...

...Another thing I realized was mothers...as a mother of two small children, I observed other mothers all the time...I used to meet other mothers sometimes and they pay so much attention to raising their children...The local city centers organized various events for mothers with small children. In libraries, mothers sit with their children and read them books; all city centers have rooms for children. And I used to receive various letters about events, notices about supports available in the community etc. Seeing these, I reflected on how important it is for the society to support child raising. The whole society needs to support families to raise positive future citizens...

.... Also, I reflected on the way we work [at university in Mongolia]. In Mongolia, we work so much like there is no tomorrow, work after work...without stopping, without

time to think. But in Japan, people are more grounded, they take time to think and plan. When they make a plan, they plan for time to reflect. When there is a group plan, each person also plans her time to do specific work. And they follow and respect these plans. But in Mongolia, we don't plan much and just jump into work after work like we are chased by a big tornado as if planning is impossible. In Japan, I noticed that personal planning is very important, so people don't intrude to someone's planned time. (Zaya, JDS alumna)

Zaya talked extensively about her observations, reflections, and what she learned. She observed how ordinary people lived, the social system to support children, and she was comparing herself as a mother and a faculty to Japanese mothers and professors. It was more than collecting information; she was re-evaluating her own work styles, the social system in Mongolia to support families and children, and even the recycling system in Mongolia.

Other “divers” were actively searching for information, dialogue and experiences to make meaning of “what it means to be a Mongolian”. Javha said,

I thought, ‘how am I different from them’? When I was in Mongolia, food was just an ordinary mundane part of life, but then when I am asked about Mongolian food or asked about very small things that I didn't notice before, I think of these things: what do we eat, why do we eat this, and how do we make this etc. So, I reflected more on what it means to be a Mongolian, think of how to describe Mongolian context and culture, how to explain from which side...if I say this, maybe they will understand it wrong...so like this, I started to think more of how I should represent Mongolia and talk about Mongolia. (Javha, MGL alumna)

One of the motivations for studying in Japan was her love for Japanese food. Embracing the Japanese food culture, she was comparing the Mongolian food and culture.

It was not necessarily the challenges or feeling as ‘other’ in the new environment that drove these alumni to dive into a transformative experience. For Urgaa, it was having free time that enabled him to search for meanings of being a Mongolian. Being away from daily work and home responsibilities, he found himself to be able to have much more time to himself to think and reflect. He said,

When we're inside the same social environment with daily tasks and works, we don't pay attention to our internal selves, having no time to stop and reflect. In Mongolia, I didn't have time to think about various things. But in Japan, I was just conducting my research and it was like having a meditation every day--being alone while studying can be good sometimes. It can be an enlightening experience. (Urgaa, JDS alumnus)

During this alone time, he reflected on his daily experiences at university, classroom, and in the community, but also explored Mongolian history, reading historical documents, and getting connected to online social groups, and discussion boards. These alumni actively

searched for new experiences in order to make meaning of their own identities. It was not any challenging or disorienting event that triggered them to reflect; rather, the alumni viewed their study abroad experience as a chance to explore.

Pushed into transformative learning. Some alumni faced challenges from the academic environment including the professor's high expectations and the research work demand, or from the workplace norms. Such challenges pushed them to reflect on their own assumptions, working, learning, and studying habits, and to adopt a new way of doing things. Charaniya (2012) said that those who are pushed into transformative learning view challenging disorienting experiences as a learning opportunity. Instead of running away from the challenges, these alumni embraced them. The following two sections present the type of challenges that pushed alumni to grow. These are 1) professors' influence and research work demand, and 2) work experience.

Professors' influence and research work demand. While academic programs and learning environment differed across universities and departments, challenges from supervisors and the nature of their research work process were perceived to be common factors in an academic learning environment that influenced alumni to expand their perspectives, and gain professional competencies. While some had a very close relationship with their supervisors, others had a minimum contact. Nevertheless, many talked about their supervisors who challenged them. Mandakh talked about enhancing her time management skills by observing her supervisor's planning.

My professor's calendar for the whole academic year used to be already filled in advance...So it was very difficult to meet him whenever I wanted. I needed to plan my work in advance and make a schedule in advance...Although it was very frustrating at times, I found it an amazing quality to make plans so thoroughly. It shows how well that person plans and manages her works... If you plan something in advance, there will be less emotional and financial pressure for that person and fewer risks... Following this style or way of thinking, I try to plan my work in advance. (Mandakh, JDS alumna)

The rigorous planning of his professor pushed Mandakh to reflect on her own planning skills. Although it was frustrating for her in the beginning, she now views it as a learning experience. Her professor's planning behavior questioned her own planning skills and her view of planning, in general. Another alumna, Anar talked about the language challenge,

My professor said that a person needs to study in the language of the country...if you go to England, you speak in English...and if you study in France, you speak in French

and learn the culture of the country through the language...my professor had studied in French...And he told me that he would speak only in Japanese from then on...this was very challenging and prompted me to learn and study Japanese very hard. (Anar, MGL alumna)

This demand to learn another language in order to pursue her studies was one of the disorienting events for Anar. Prior to her arrival in Japan, she had studied in English speaking country for a year to improve her English skills preparing for her Master's degree study. When she chose Japan, she assumed that she would be able to study in English. However, her expectation completely failed after she arrived in Japan as a research student. While the professor had accepted English speaking students, he expected that students would be able to learn the Japanese language during the preparatory research student period and mainly continue their studies in Japanese. This expectation was not communicated well with new coming students. While this miscommunication and mismatch between the program and students' expectation or even preparedness can be severely detrimental for students' success (as Anar talked about other foreign students who could not advance in their studies mainly due to the language barrier), for Anar, it had a transformative impact.

Partly because she already had received the MGL loan-scholarship to study at this university for a degree and her family had invested in her studies, she could not just stop and return home. Thus, although this experience was very challenging for her, she was determined to study under this professor and tried to learn the Japanese language. This experience pushed her not only to learn the language but to reflect on her understanding of what language means for a nation. She reflected on her national identity—what it means to be a Mongolian person in general and the value of speaking in one's own language in their countries.

Nergui also talked about the challenges she faced after coming to study in Japan,

For coming from Mongolia [as a developing country], they [professors] have an expectation that you don't know much...and if you prove yourself to be a hardworking and intellectual individual, they start to trust you as equal to their Japanese students. At least, that's how I felt so, especially in the beginning. (Nergui, MGL alumna)

Being one of the best students in Mongolia, always feeling accepted, she had never experienced such feeling of "otherness" before. She did not give up but rather fought to prove her worthiness that she can succeed regardless of professors' preconceived assumptions. Communicating effectively with professors and making themselves understood was important for alumni. Bayar also said,

It was important to understand what exactly the supervisor wants. Japanese people do not directly say what they want but rather offer and suggest, "what if it's like this". And it was a challenge to understand that by their suggestions they actually wanted something without directly asking for it. For example, not preparing what the supervisor asked in a timely manner thinking it is not very important to finish fast (Bayar, MEXT alumnus)

Such challenges to effectively communicate with his professors pushed Bayar to understand the Japanese mentality and cultural context. For example, the more he communicated with his professors Bayar became aware of diverging perspectives and ideas to look at the same issues. He said,

When I communicate with different people, especially professors, I was exposed to many different ideas. My understanding of what is correct could be completely different for other people. For example, instead of looking for certain solutions, some would look at the limits that are constraining the solution...before studying abroad I looked at things, for example, this spoon and I see it just as a spoon and that's it. But in fact, the spoon can have different shapes, can be used in different ways. In other words, instead of looking at things from only one perspective, I could see from many different angles. (Bayar, MEXT alumnus)

Bayar further talked about how his perception of 'research' changed as a result of his study.

In Mongolia, we did not conduct any research studies at the university for my bachelors. Students take courses, exams, and get their grades. In Japan, I realized "Ah. This is what 'research' actually means". It should have different qualities than researches in Mongolia. I realized the importance of research in the society, university, and the research field itself if conducted appropriately. (Bayar, MEXT alumnus)

He reflected on his own understanding of 'research' in contrast to how it is perceived and utilized in Japan. He realized that not only students were ill-prepared to conduct social science research in the advanced level, but the research work quality was also not emphasized as important during his study and work experience in Mongolia.

On the other hand, very few alumni talked about critical thinking, discussions, reflective writing works, or assignments that challenged their assumptions. One of them, Nyam talked about the academic environment that provided a space to hold discussions with professors and other *senpai* students. Such opportunity helped him develop more pragmatic ways of looking at things.

At A university, it was normal to argue with the professor, upper course students (senpais)—it was the very open and free academic environment. This experience in such an environment and university culture really changed my beliefs and value. I learned how to view things from different perspectives, from other people's point views, and started to leave the dogmatic way towards the pragmatic way of perception. (Nyam, MEXT alumnus)

Nyam said Japan was the “West in Asia”, the most westernized academic learning environment in Asia at that time, in the 1990s. Being raised and educated in a society with socialist ideologies, Nyam said that his experience in Japan, especially the opportunity to debate and hold discussions with his professor and other students was transformative.

Another student, Mandakh talked about critical thinking,

My professor used to tell us to be critical in research, always ask the question 'why' from ourselves... not to be ever satisfied with the results from our research and not conclude fast assuming that because we know this area more, and told us to be critical whenever we read something. (Mandakh, JDS alumna)

On the other hand, Zaya, another Master's program alumna compared her experience in the US (during short-term exchange programs) with her experience in Japan. She said,

I could pass and graduate with two small kids without many struggles...but in the US, students read so much. They have much more pressure. And they have more homework, reports to write, need to actively participate in discussions, debates etc. The participation is very important. But in Japan, it wasn't like that. I think they are more traditional. Students learn on their own...there are discussions and seminar presentations...but students are not very active. Also, the program was in English. So, there weren't many Japanese students. Most students were foreign students. And the classroom size was very small, up to 14, 15. Sometimes we had even 4,5 students in one class. So I think with such small-sized classes, the workload was less. (Zaya, JDS alumna)

While the programs vary by universities or even by their departments, a few alumni talked about critical thinking or discussions as part of their academic learning. Rather, they referred to research works and supervisors' challenges and guidance that helped them develop competencies and expand their perspectives.

Work experience. Although all alumni in this study were government scholarship recipients, their scholarship amount differed by their programs. The Japanese government students received a full tuition waiver plus a living stipend (in addition to other financial support such as return ticket to and from home country) while Mongolian government

scholarship was fixed regardless of students' programs or destinations. Therefore, MGL students had to find an additional scholarship, apply for tuition waiver, or work part-time. Among the interviewees, all MGL alumni worked part-time while only some MEXT alumni and none of the JDS alumni worked part-time. For some alumni (not all), the work experience pushed them to make more critical observations and reflections, as they were able to go deeper into social interaction. Dulam, who used to work part-time, said,

I observed Japanese parents and their attitude with their children when I was working as an assistant teacher in a local nursery school. Because I don't have my own family, I wouldn't observe or pay attention to these things for example, at the university.
(Dulam, MGL alumna)

Another alumna, Anar had a rich learning experience while working in a wide range of places, from dishwashing job to teaching assistant at her university.

I had worked in Mongolia. But it was very different in Japan. For example, one shouldn't be looking at his phone during work time, use only during break time and they have many small and specific rules that make sure we pay attention to the work only. During work time, you should focus on the work only...if you can't do so, maybe you should take a leave or day off.

New person is smoothly and easily absorbed into a 'running wheel...of work', like a spinning wheel...they put the person on the wheel very smoothly...and it is almost impossible to get out of this cycle during your work. You can't easily say "I want to get out of this cycle" or "I want to do this in my way". In Mongolia, we don't have such a running wheel—it's just a big flat platform or space...and people adapt to each other but there is more chaos.

In Japan, the wheel goes forward and your work also goes forward if you are inside that wheel. If you go outside the wheel, it's not going to work out. Your work wouldn't be successful and your colleagues wouldn't respect you. You won't learn a thing if you are not inside the wheel. It's true even for a cleaning job...when I didn't know the language, I used to do cleaning works. I used to wash cups in the kitchen. Anyone can wash cups, right? I have my own way of washing cups, right? But they require you to wash them in one particular way and place them in one place only. (Anar, MGL alumna)

While organizational culture varies, work opportunity in Japan pushed alumni to compare their working habits, norms, and values in Mongolia and Japan. Short internships or part-time works provided an opportunity to build a more contextual understanding of work culture and wider social norms in Japan. On the other hand, it should be noted that not all alumni who worked experienced perspective transformation. For many MGL alumni, working part-time

was to have their ends met. With financial and academic pressure, they did not have a chance to think about their experiences, hold internal dialogues or discuss with others. Until after they graduated and returned home, they did not have conscious comparisons or reflections.

Family in Japan. Another factor that pushed alumni with disorientating experiences was having family members, especially children, in Japan. While studying in a foreign country with small children can be challenging especially for mothers, the presence of children pushed them to adopt, understand the local systems much faster than single students. Maral, one of the early graduates of MEXT scholarship said that she received a “bachelor’s degree in life, growing both psychologically and intellectually” in Japan, “trying to navigate housing, children’s kindergartens...”.

While alumni had different opinions regarding the actual influence of Japan on their children, living in Japan with a family was generally perceived as a positive experience. Tsetseg (MGL alumni) viewed studying in Japan helped them develop independence and more effective communication skills. She said,

When you are young and soon after starting a family, of course, there are times when each of you wants to go your own way [in making decisions], and there are moments of misunderstanding. But when you are in a foreign country, we have to be independent, we can’t rely on others, we have to make our decisions by ourselves, and lead our life and family by ourselves. We had to talk and communicate a lot and understand each other more. (Tsetseg, MGL alumna)

She said that within her family space, they could live as Mongolians (language, food, observing cultural holidays, watching movies etc.) rather than trying to follow Japanese culture. She said,

Having my family with me helped me to just focus on my studies because at home I could release my stress and be by myself...we observed Japanese culture, the way they lived and worked but inside the home, we lived as if we were in Mongolia
(Tsetseg, MGL alumna)

In this sense, the family provided a comfort zone to retreat, build support in order to embrace the challenges.

In sum, the alumni in this ‘pushed in’ category experienced a transformative learning as they embraced challenging events. The challenges from their professors, especially the supervisors and work experiences pushed alumni to critically question their beliefs and values, reflect on Mongolian contexts and issues in Mongolia. The presence of children pushed alumni to interact with local residents, other parents, navigate through schooling

activities in addition to their own academic endeavors. The “pushed in” category fits in Mezirow’s transformative learning theory (1991) where the disorientating experience makes learners question their existing assumptions and deeply held beliefs.

Testing the water. The third type of transformative learning process was ‘testing the water’. These alumni did not actively seek experiences in Japan to build a more contextual understanding of Japan or to make meaning of their personal identities. They also did not experience any distorting disorienting events that challenged their existing assumptions and beliefs. These interviewees had a strong individual identity but they were also interested in learning about Japan. However, a few alumni were able to experience a perspective transformation. For Ganbat, he developed a hope to have a transparent society over the years in Japan.

[I learned that] we can have a better positive society where individuals live cooperatively with each other without causing any harm to each other and I understood that I can bring such positive perspectives to our society through my work. This is the main outcome of all of my experiences and learning—that I’ve accumulated consciously and unconsciously. I intentionally learned some things but some I learned through looking, feeling, and hearing. And all these new perspectives come up in our every daily life—and show an impact on our surroundings to some extent. (Ganbat, MEXT alumnus)

Prior to his study in Japan, he had studied abroad and worked in academia in Mongolia for many years. Yet, his experience during his graduate school for Ph.D., work experience in Japan, and other sociocultural interactions in the society expanded his perception about society and harmony, realizing that it is possible to work together for a common good.

No transformative experience. On the other hand, most alumni who were testing the waters did not have a perspective transformation. For example, Amar said,

I made lots of comparisons such as comparing my skills with other doctors around my age or comparing my own research skills or research orientation with other international students' attitude towards research. (Amar, MEXT alumnus)

Making such comparisons, Amar positioned himself in regards to his Japanese peers or other international students. He tried to understand the cultural norms and practices in order to succeed in his endeavours. He said,

If you are in Rome, do as Romans do, right? So, I just followed the common practice in that society –in other words, I couldn't be very special or standout as unique in the public; of course, I shouldn't lag behind also. Of course, we have to adjust to the new environment; thus, we needed the patience to adjust. (Amar, MEXT alumnus)

Beyond learning the common practice in Japan and adjusting his behavior in order to fit in or to succeed in his pursuit, he did not question his own or other people's assumptions.

Similarly, Urnukh said,

...I just concluded that my personality doesn't fit well in Japanese society. I am a very open and flexible person. But Japanese people are not. They always self-censor themselves, their words...if they say yes, they will keep their words...maybe I can call it as very disciplined...they have so much group identities. For job hunting activities, students all dye their hair to black, and everyone wears black suits. One day students had yellow, brown different colors of hair but then one day all became black. Why? because they are going to job interviews...Of course, I understand that this is the expectation and the social context. And I respected their culture, trying to understand them, following their rules, customs...For example, in Mongolia or here [US], I am more assertive and say that I know this and that but in Japan, I followed others and worked on my own tasks quietly, without saying that I know this and that or I had that experience etc. (Urnukh, MEXT alumna)

Both Amar and Urnukh went to Japan with a strong sense of who they are. While they were critical of Japanese contexts, they aimed to fit in and move on in their studies. Thus, they developed a contextual understanding of Japan but did not change their perspectives either about themselves or their perceptions about others.

Mezirow (2009) and scholars (Merriam, 2004; Taylor & Cranton, 2012; Gambrell, 2016) noted that there are two types of critical reflection that enable students to transform their fixed frames of reference. These are subjective reframing and objective reframing. The objective reframing is when someone critically reflects on other people's assumptions while the subjective reframing is when someone focuses on their own personal frames of reference. The objective reframing involves looking outward while the subjective reframing requires one to look inward regarding their values and beliefs. Brookfield (1998) argued that seeing flaws in one's own assumptions is like a “dog trying to catch its tail, or [like] trying to see the back of your head while looking in the bathroom mirror” (p. 197). Most interview participants critically reflected on contextual differences between the two countries when they tried to make sense of why the social norms in the two countries differ. They needed to understand how the system in Japan works in order to fit in the society during their study

period. However, only a few talked about being critical of their own assumptions—or what can be called as “subjective reframing”.

When alumni talked about changing their perspectives most had objective reframing reflecting on Japanese social context, Japanese people’s mindsets, their way of doing their jobs, lifestyle, on other Mongolians but few had subjective reframing, questioning their own selves, especially the values and beliefs. As a result, they developed an intercultural understanding of Japan, ability to see the contextual difference between different countries, communication skills to effectively work with Japanese and other foreign people but not necessarily an epochal transformation that fundamentally changed one’s frames of reference.

On the other hand, while alumni critically viewed aspects of Japanese culture, they said that they try to focus on the positive learning experience that they can share with others in Mongolia. For example, when Zaya talked about her observation of Japanese mothers, she talked about the social expectation for mothers to be always there for their children and be available to attend school events and meetings. Although she was critical of this gender norm, she viewed it as Japanese context that does not necessarily apply in Mongolia. Rather, she focused on supports available from the government and the communities to support raising small children. Similarly, Anar mentioned that understanding Japanese contexts is helpful especially when she works with Japanese people but she does not share the negative or critical aspects of Japan when she shares her experience but tries to focus on the positive points.

5.2.2. Development of other competencies.

Alumni developed technical, professional competencies and other soft skills as a result of their experience in Japan. This can be a part of their transformative learning experience that led them to develop multiple perspectives and more contextual understanding of Japan and Mongolia. In addition, alumni who did not experience transformative learning experience were still able to develop technical skills. This section presents the main skills that alumni developed.

As the quotes in previous sections often showed alumni mentioned developing research skills to conduct their research more efficiently. This included becoming skilled in working with certain equipment, designing their research studies, knowing how to approach their studies, or collecting and analyzing their data. Alumni whose works did not involve research talked mostly about developing these skills.

To be honest, I didn't have a good understanding of research methodology when I went to study there because I was working in the administrative division in Mongolia...as I look back, I lost much time trying to learn about research methodologies while trying to conduct my research... Now, I think I have much better knowledge about research and how to approach one. (Mandakh, JDS alumna)

I developed skills to operate tools or use appropriate materials by following the instructions, and manuals and understanding how we should operate them, and what these tools are for...[now] instead of bringing foreign experts and the translator, I can, for example, read the manuals and operate tools even if I have not worked on them before. (Amar, MEXT alumnus)

The most important thing I learned was self-learning methods, techniques. In Mongolia, still today, the conventional pedagogy is dominant where students are taught from authoritarian perspective. Students are used to being told what to do next. And the most common mistake that Mongolian students make in Japan is that they don't take initiatives and don't work/study on their own unless someone tells them what to do. As someone who's been working as a lecturer before going to Japan, I was better in studying independently but still, there are moments when I feel that it wasn't enough. So, by studying in Japan for my masters and Ph.D. degree, I think I developed that skill to direct my own research and studies, setting my own goals, coming up with my own plan and doing the work independently. (Tsetseg, MGL alumna)

Many alumni talked about developing skills to efficiently conduct their research whether it was their understanding of research methods, skills to effectively utilize tools and equipment, or independently direct their study and researches. As they were not exposed to these tools during their formal education in Mongolia, they faced difficulties operating them even once they received or they did not know which tools to request.

Besides developing or sharpening their technical and research skills, alumni talked about improving their organizational and communication skills that helped them to produce better quality work.

Studying in Japan, I have not only knowledge about Japanese culture and tradition but also I have developed personal qualities such as being punctual, attentiveness and planning work in advance etc. Being punctual is very important; also, being attentive is very essential in communication. They say kizuki, being able to observe and understand what that person wants. It's about being attentive and initiative without being asked. It's about being responsive and attentive to your counterpart, and it's an important factor in successful business communication.

Another important quality is being punctual, and working with advance plans.

Mongolians are usually like, 'hey you have time now? I'd like to meet you now.' But Japanese people plan their work for at least a month in advance. So, where I learned all these qualities—it's from Japan. There are things we learn by observing or without knowing that we are learning or developing and things we learn by explicitly making the investment. In that sense, I'm valued high in Mongolia—people value my work. My clients always returned back after the first service. They say that they like to work with me because I'm very good at my job, responsible, trustworthy. All these qualities were shaped during my education abroad. If I didn't get these skills these people wouldn't have come back again after their initial work with me. (Gerel, JDS alumna)

Using these skills, she is working as a freelancer while running her own NGO.

In addition, intercultural communication skills were important competencies many alumni developed. Alumni who developed contextual understanding and multiple perspectives also talked about becoming able to communicate efficiently with Japanese people as well as other foreigners. For example, Baatar said,

Compared to other doctors who haven't studied abroad, I've learned how to communicate and relate with foreigners, I know from where and how to get new up to date information and technology on time. These are the most important things. For example, if I want to cook some dumplings and come to you and say, 'I don't have anything but want to make dumpling together', it would be rather strange for you. But now I will say that even though I don't have the materials for making the dumpling, I can make dough really well and flatten the dough very nicely, can adjust the flavor, marinate the meat well, I can chop meat very nicely'. Maybe that person might not know how to make dumpling but has the flour, meat etc., so we have to ask for a real collaboration with this person. But Mongolians say, 'we don't have anything' and then once they get the flour and meat, they try to get away with some bland tasting dumpling with very little meat inside. But because I lived in a developed country, and worked with foreigners, I know how to approach them. (Baatar, MGL alumnus)

Besides talking about communication skills and learning how to cooperate with foreign counterparts efficiently, Baatar also touched upon professional ethics. Using the metaphor of making a dumpling, he talked about other "professionals" trying to get away with poorly conducted works while he has broader visions to complete the work in better quality not only for a better professional ethics but also in order to retain the collaborators.

When talking about improved quality works, many alumni talked about developing meticulous work habits, discipline and doing one's work from the heart.

I highly value the habit that I developed in Japan to complete works meticulously, to do things from the heart, and on time. For example, if I've received some tasks...I would use all my mind and heart to complete the work. The graduate school, the work really

helped me develop this habit. I think the meticulous work habit is the biggest skills I would say that I developed in Japan. To do anything from the heart and the habit to try to see the end, the results...Also, the habit to think and consider all possible, good and bad, outcomes. I can't start working with just an abstract idea before considering its various aspects, possible outcomes etc. (Nergui, MGL alumna)

Besides the development of personal, professional, organizational, or communicative skills sets, alumni developed an expanded understanding of the local issue by looking at it from Japan, comparing and contrasting between Japanese and Mongolian contextual differences and acquired broader and multiple perspectives to look at issues in Mongolia. For example, Bayar says,

As someone working in the economic-financial sector, I realize that this sector needs much reform even though it hasn't been long since we transitioned to the current open market economy in Mongolia. In Mongolia, banks dominate the finance sector. In fact, there must be many other players—broker-dealer companies, stock exchange, financial regulatory agencies, or insurance companies. But in Mongolia, banks dominate the sector--around 90-96% of the financial market is dominated by banks. Compared to developed countries, it is a ridiculously high number. Usually, banks dominate around 40% of the finance market and the rest is managed by other agencies, companies. More active involvement of stock exchange, broker-dealer companies is needed. People don't have a good understanding about stocks. Because the share and the stock market are not understood well, thus not valued, companies' shares are not sold well at the stock exchange. So, companies get a loan from a bank with high-interest fees making the bank even more dominant. So, I think people should pay more attention to these areas to produce a more healthy financial market. (Bayar, MEXT alumnus)

Alumni highly value these new perspectives, ideas, and competencies they developed. However, sometimes they could not fully utilize these skills after their graduation. This area is further explored in the next two sections.

5.3. How do the scholarship grantees perceive the benefits of their study to the home country?

In the second part of the interview, alumni were asked if they were able to use their knowledge and skills at work, in their community, and what their learning meant after coming back from Japan or since graduation. Then I asked alumni about the role of scholarship programs and their perceived contribution in the home country development. Three main themes emerged from alumni's talk regarding their perceptions of their impact to their home country development: 1) alumni think that they contribute to Mongolia through

their jobs, part-time works as well as other voluntary activities. If the work is related to Mongolia in some way, alumni who stayed abroad also consider their work contributing to Mongolia; 2) Alumni utilize social network formed both during and after their studies; 3) Alumni also viewed that they play as role models in their communities including the workplace. Such modeling by professional ethics, moralities, and manner is perceived as another indirect effect of their study to Mongolian society.

5.3.1. Contribution through job

The normative expectation of scholarship programs is that sponsored students' increased capacity and individual competency will help them contribute to the institutions, their workplaces and the spillover of that effect will contribute to the wider socioeconomic development. Although many alumni viewed that they contribute to society by improving their work quality, many did not think this was the case.

Returning back to their jobs. Most alumni in higher education institutes, medical or research institutes returned to their previous jobs after graduation. However, those who used to work in state agencies, government offices, or ministries had difficulty returning to their jobs or they switched their organizations or sectors for better work environments and conditions.

Table 5-2 *Interview Participants' Employment Information*

Employment information	MEXT (n=10)	JDS (n=6)	MGL (n=8)	Total (n=24)
Employment prior study abroad				
Public sector	2	2	2	6
Private	4	1	-	5
Academia and Research Inst.	3	3	6	12
International org; NGO	1	-	-	1
Current employment				
Public	1	-	3	4
Private	6	-	-	6
Academia	2	2	4	8
International org; NGO	-	2	-	2
Abroad (2 in the US; 2 in Japan)	1	2	1	4

The JDS and MGL scholarships require alumni to return to their organizations or work in the public sector. However, it is up to the organizations whether to hire them back or

not and which position to offer. For example, Gerel made a contract to return to the Ministry of Agriculture after her studies in public administration. At the time she was selected to participate in the scholarship program, she was working on a project at the Ministry. However, when she came back after graduation, there was no job position available at the Ministry. The Ministry did not offer any positions as the project she worked had finished and it her responsibility to find another job. On the other hand, Urna could return to the government agency but was demoted. She was working as a senior level administrator before her study, but the agency had appointed another person to her position when she returned back. The agency offered a lower position in the same agency but it was up to her to accept the offer or wait for a senior level position to open. She decided to accept the lower managerial position.

Similarly, some MGL alumni had difficulties returning to their organizations for similar reasons—there was no strict policy to keep the jobs for these alumni especially in the public sector. At the same time, some alumni went on to pursue further academic degrees staying even longer in the host country. Anar and Nergui both stayed in Japan for more than 6 years to complete their Masters and then Ph.D. After such a long time, they did not expect to rejoin their institutions. These challenges are presented further in detail in section 3 about ‘perceived challenges that hinder alumni’s contribution’.

In addition, alumni changed their jobs many times over the years. Many switched between public and private sectors pushed by precarious job positions or low salary or pulled to higher pay, appealing job environments, and status. For example, Nyam had a high leadership position after his study abroad but then he had to quit the job due to the government change—the opposing party gained a majority in the government. Thus, he moved on to a private sector as a senior administrator of a private educational institution. At the same time, alumni do not have a linear path after graduation. Their decisions are influenced by their social positions, status, and home country context. For Tseren, it took her 9 years to finally be able to apply her knowledge at a national university in Mongolia.

I couldn't use my knowledge after coming back. I was getting older, so the family issue was more important. And I got married and made changes to my personal life, so I couldn't work in my area for some time. During this time, I worked only for short period, teaching kids in some Japanese language-learning clubs. But they didn't have a good condition for learning or teaching--students would disappear after some time. Only from last year, I started to work in my specialized area after many years.
(Tseren, MEXT alumna)

Another alumna, Maral talked about her work trajectory of working for a public university first, then moving on to a private company while setting up her family business and at the same time, she was working for the international organization as a translator. Similarly, Amar worked for a private clinic but he was also teaching part-time at a public university. Almost half of the interviewees worked part-time at research institutes, universities, private companies, or international organizations in addition to their regular jobs. Most had double jobs in order to financially sustain themselves as Delger said, “I have two jobs, it’s very challenging to live here with only 1 job.” Thus, it is difficult to measure alumni’s output just by their main full-time jobs.

Direct contribution to the home country development through the job. Alumni talked about direct and indirect ways of influencing society through their jobs. Direct influence included being able to participate in decision making at the government level, drafting and proposing legislation, leading various reforms and policy changes. It also included faculty members in higher education institutes who directly influence students. Direct contribution to the economic development was perceived as paying income tax, creating wealth, running a business, and drafting policy or legislation about finances and economics. For example, Nyam was promoted to government advisory position to take part in government reform policy after getting his master’s degree. He said,

The work was directly related to my study. Therefore, I was able to contribute my knowledge and experience to the government reform policy. Our research and recommendations became the basis for the next government structure, organization, and policies. (Nyam, MEXT alumnus)

Few participants had such leadership stories that influenced legislation. Even if they were able to work at policy-making or decision-making level, they did not stay long because of precarious nature of government jobs in the midst of instability in Mongolian politics.

Tsetseg, a faculty in a national university does not think she influences the institutional policy and structure during the ongoing higher education reform but she thinks that she contributes to the country by preparing better scientists and practitioners in her field. She said,

I think the benefit of studying in Japan is mostly applied through my work, the way I express my opinions, my teaching methodology...for example, normally, most

[students'] dissertation works' major literature review chapters are based on the library materials that are mainly from the 60s and 70s, but I have my students use the recent research publications, and articles and have them explain/write their research in a very different way than others. I try to provide them with as much new information, new trends as possible and help students to see the issues in different ways. If I follow the university norms, it's also possible not to update myself, not read new researches, and just get by teaching the classes using my lecture materials from previous years. But I try to be as much up to date as possible and most importantly, help the students access such information on their own. (Tsetseg, MGL alumna)

Other faculties, Ganbat, Amar, Tseren, and Zaya also talked about adopting a more open attitude towards their students and making changes in their teaching methodologies. Some faculties started to collaborate with their Japanese counterparts on research and teaching projects such as initiating student exchanges between the labs or departments in Mongolia and Japan. Nergui and Dulam found their programs through their own professors in Mongolia. Nergui said,

During my undergraduate program, I studied in Japan for a year as a visiting research student in their lab. My lab in Mongolia and their lab in Japan had connections through our professors. My professor had graduated from school.
(Nergui, MGL alumna)

During their student exchange, Nergui and Dulam learned about Japan and universities in Japan. Later, this experience motivated them to study in Japan for a graduate degree. In other words, faculties are also contributing to the multiplier effect of study abroad, sending both privately and publicly funded students.

On the other hand, alumni viewed that those running a local business, bringing financial investments from abroad as potentially influencing the economic development. Alumni referred to other alumni, who started a business after coming back from Japan as a positive outcome of programs. Among the interviewees, only MEXT alumni were working for private companies for full time while many had a side family “business”—from language training centers to tourism-related.

In addition to business, alumni viewed that they contribute to the economy as long as they are in Mongolia. Ganbat, the MEXT alumnus, said, “in terms of how we contribute to the economic development as citizens are through tax payment...through honest payment of their taxes”.

Indirect contribution through the job. Alumni viewed that they make an indirect contribution to the community through improved work productivity, efficiency, as well as research works and publications. For example, Amar, a MEXT alumnus, said, “I try to provide the dental service with as much good quality as possible—I am focused on the quality of my dentures that I make. This is my profession—I can only do this for the society”. On the other hand, Tuul viewed that being able to stay in the field and conduct her research in science is a big contribution to Mongolia.

Our research work is difficult to be valued well in Mongolian society...we're living in a society where the researchers' salary is not even enough to cover their daily needs to buy basic food; so the research work is not valued, it's not clear if advanced research work is even necessary when there are so many other problems... but...at exactly, this time, we should not leave this basic research...I think Mongolian scientists are very resilient, strong people...keeping the field alive at this difficult time...So it is very difficult for researchers to spread out their work or try to raise awareness in the society or trying to link their work to other works...these are all very different separate works and issues. (Tuul, MGL alumna)

As this quote shows, doing their Ph.D. in a science field that is underdeveloped in Mongolia does not provide them a high income or economic return for scholarship alumni. Staying in the field was, thus, viewed as contributions researchers can make. However, low pay and under-recognition drives many researchers to the private sector or to other highly developed countries.

Interestingly, researchers who stayed in Japan or went to the US viewed that they have more potential to contribute to Mongolia from abroad. MEXT alumni who graduated from the PhD program in health sciences said,

I don't really think that I need to be in Mongolia in order to give back to Mongolia. To be honest, people like me, with this type of profession will just rust there...for example, when Mongolia had measles epidemics, I was able to influence the decision-making committee at the US research center [where I work] to send experts there...I was able to connect them to the Ministry and WHO in Mongolia. This is an important contribution than trying to do something in Mongolia with a lack of resources.
(Urnukh, MEXT alumna)

The other two researchers in Japan talked about their collaboration with researchers in Mongolia on their projects. The technology and laboratory equipment in Japan help them advance their research that would have been difficult to access in Mongolia. They viewed

that their research raises awareness about Mongolia and helps the Mongolian researchers establish an international network.

Contribution through other activities. In addition to full-time jobs, many alumni talked about other channels such as part-time teaching positions, research projects, publications, and community service works. For example, Bilguun said,

Rather than using my job post, I think we can apply our knowledge in other ways that can be beneficial for society...for example, in Mongolia, there isn't enough learning material in my field...so, together with another alumnus we translated a book [from Japanese] and published last year. (Bilguun, MGL alumnus)

Although prior to his study Bilguun worked as a researcher, he was transferred to another position within his institution that does not utilize his research skills. Some alumni, similar to Bilguun, actively sought other ways to share their knowledge and experience when they could not do so in their workplace. Many formed their own groups and networks such as NGOs or a Rotary club charter.

A couple of interviewees were active members of a Rotary club. They either started to get involved through their scholarships (MGL alumni) or they voluntarily joined such clubs after coming back to Mongolia. While Delger talked about building libraries for a public school as a project outside his work, Dulam talked about her involvement in projects for students with disabilities.

For example, as part of the community service project, we translated a movie for visually impaired students and distributed to schools for children with special needs. Also, I participate in activities by an NGO for Sustainable Development by giving lectures, sharing my knowledge and experience with the public. For example, I gave a couple of talks about why Japanese people live longer by comparing Mongolian and Japanese lifestyles and habits from my own research angle. (Dulam, MGL alumna)

Similarly, Zaya also talked about giving a public lecture.

I did a public presentation about the neglect of public properties...I thought after coming back from Japan about how much our public spaces like children's playground, bus station etc are largely abandoned. People don't care for these places, and just discard them throwing garbage or drawing on the benches etc. I connected this situation with people's conscience applying a theory from my dissertation. (Zaya, JDS alumna)

Another alumna, Solongo, a doctor in a hospital established an NGO together with other Rotary club members from diverse areas of study in order to make changes in the health sector, especially hospitals.

After coming back and joining my hospital, I faced many frustrating situations but instead of just complaining, I decided to get together with others who also studied abroad, who have English language skills, and most importantly, wills to make changes and improvements. Besides the rotary club, we formed an NGO to bring doctors from developed countries and to give doctors training such as how to do bedside teaching for interns and residents. Our hospital is one of the teaching hospitals but we lack support from the Ministry of Education because we belong to the Health Ministry. We don't receive funding to train the doctors or to carry on the resident doctor programs effectively. Also, we lack something like 'institutional memory' that keeps a record of all different information, knowledge. For all these purposes we created an NGO. Next year, we're bringing technicians who can fix medical equipment as part of an aid.

In order to make changes, she got together with other individuals who share a similar passion. Together they find their own funding, write projects and receive help from other foreign countries. Alumni hubs such as rotary club and social media platforms played an important role to connect Solongo and Dulam to others and realize their ideas into something real. Providing opportunities to exchange ideas among graduates across different fields and host countries can be, thus, an efficient way to foster alumni's contribution to their communities.

5.3.2. Alumni utilize their social network with Japanese counterparts as well as local peer students to bring changes in their community

Another way to contribute was through social networks that alumni built during and after their studies abroad. Some were effectively utilizing such network in their work, research, and community service work. Baatar, a researcher, said,

One of my professors is visiting our hospital to conduct a fetus surgery. It would be one of the first steps to develop the fetus surgery in Mongolia. My professor also connected us with a center in the US. Now in an effort to develop the fetus surgery, we are working with Japanese and American professors. (Baatar, MGL alumnus)

The main contact with Japan for many interviewees was their supervisors in Japan. Alumni in research and academic institutions were able to collaborate with their professors on research, teaching, student exchange or other projects. Through such collaboration, Baatar's unit was able to make medical progress in Mongolia.

However, not all interviewees working in academia or research institutes were able to collaborate with their professors. Research collaboration was efficient when alumni and professors' interests aligned. For example, Tuul and Dulam could not collaborate with their professors despite their interests because of the big gap in the level of research in Mongolia and Japan. Tuul said,

*I'm not yet collaborating with my supervisor on any projects. My supervisor studies edible * while we don't here...our research is not very related to his research...so I contact them for advice or guidance when I don't know how to solve research issues...or to update on what I'm working on and so on. (Tuul, MGL alumna)*

Moreover, some alumni used their connection with their host university or other researchers to bring investment, research funding, or import technologies to Mongolian institutions.

Aagii said,

When I got there [as a dean of the school in Mongolian university] they had only 40, 50 computers among 246 teachers. I was able to bring more than 350 computers from the "A" University [in Japan] and supply every teacher [in Mongolia] with a computer. And I was able to establish MoU with over 10 universities in Japan...I think it is very useful to promote alumni when they come back because they can get more support from their host universities. (Aagii, MEXT alumnus)

Through his connection to his alma mater, he was able to bring technological investment to his institution in Mongolia. In his opinion, his promotion to a dean upon his return played an important factor for the Japanese university. The host university was proud of his accomplishment as their graduate and was willing to support the good cause. Similarly, Baatar was also promoted to a leadership position upon his return, which helped him to efficiently collaborate with a Japanese university. Baatar said,

I've been receiving resident students from Japan from "B" university at our hospital in Mongolia. During their visit, they [resident doctors] are introduced to various cases of patients—I assign them to night-shifts during which the hospital is very busy. We have around 30-40 births a day. For them it is a big number—they get very surprised that we have so many births a day and then they also go to the surgeries. Each year, we have around at least one resident coming to our hospital for a week. (Baatar, MGL alumnus)

As Japan is facing a declining birth rate, the resident students at his alma mater university do not experience a variety of real cases. By enabling this exchange, the Japanese students experience a high number of real cases including complicated surgeries in real life situations. While his Japanese professor is helping the institution to advance their medical practice, the

Mongolian institution was able to offer Japanese resident students an opportunity to practice in their hospital.

As for the personal network, only a few interviewees were able to form a long-lasting friendship while in Japan. Most of such connections were either with other Mongolian students in Japan, foreign peer students, or Japanese people who were interested in or actively engaged in Mongolia. Interviewees, especially those who studied in English, could not form any lasting friendship with Japanese students. Dulam, one of these few alumni, became friends with members of an association that run activities related to Mongolia. She became friends with many Japanese people who were interested in learning about Mongolia. Upon return, she was able to facilitate their trip to Mongolia.

The network with other Mongolian students and alumni was stronger. And alumni used such networks to find jobs, expand their networks further, and support each other through their business, career, or other projects. Nyam said,

There is YAMOH for students in Japan and JUGAMO for alumni. People who studied in Japan share similar mentality, to be meticulous, responsible for the work, punctual, and be honest to their work. Others always valued these qualities. We have a good personal network among us. It's very valuable. We support each other in business and other parts of our lives. Although there is no government policy to support alumni after returning home, the alumni support each other very well. They call each other kouhais and senpais by their graduation year. (Nyam, MEXT alumnus)

Although there is no official support for alumni, graduates try to stay connected with each other and support each other's business, career, and other projects. In addition to a network of all alumni who graduated from Japan, there is an alumni network by their alma maters. Javha, the MGL alumna, said that she was connected to more people after coming back than during her study in Japan due to the big alumni network of her host institution. Badral, JDS alumnus talked about the background of establishing the first ever political party initiated and established predominantly by foreign educated alumni.

Together with those who graduated from foreign universities, in Japan, America, and Germany, and who have similar values and mindset, we established a political party and thus, trying to have our influence in politics. (Badral, JDS alumnus)

During that political campaign for government election, the alumni networks supported the dozen Japanese alumni who ran for the parliament.

Besides alumni associations, interviewees collaborated with others who are not necessarily Japanese university graduates but those who share similar interests and passion.

Solongo found her partners to establish the NGO in the health sector through Facebook. She said,

I wrote on the Facebook page...about the issues in Mongolia in the health sector about my personal opinions. Then someone who shared similar thoughts who happened to have graduated from US connected asking to collaborate. We established the NGO together. (Solongo, MEXT alumna)

Solongo further discussed the difficulty of finding such group of people from her colleagues in the hospital who often lack language or communication skills or motivation to make changes. Although she is not in contact with her Japanese university, she was able to establish other domestic and international networks following her values and motivation to bring change to the health system.

However, not everyone could establish a rich network with their Japanese counterparts during their studies. Those who studied in English talked about the Japanese language barrier to establish networks with other students and local citizens. In addition, the culture in the laboratories or departments, little interaction between Japanese and international students, relatively independent and “isolated” work lifestyle, and lack of personal motivation were cited as reasons for lack of rich network. When they did form a good network, in most times, the contact person was the supervisor. When the supervisor retired or when alumni worked in different sectors, many lost their contact.

5.3.3. Modeling by social values, professional ethics, and moralities were considered as important contribution alumni make in the society

Alumni viewed that they act as role models for their surrounding community through keeping the meticulous work habit, respecting others, avoiding bribes, and valuing research and knowledge. One of the main problems in Mongolia often quoted by the interviewees was “lack of ethics and morality” or “lack of disciplines”. Ganbat said, that ethics, transparency and knowledge-based decision-making, the value of research and education are areas that Mongolia has been lacking that hold back the social development at times of economic boom. He said,

I think every Mongolian who lived and studied abroad [in a transparent country] should contribute to creating a society and culture where we all respect each other and follow the law. We can start it by being true to these values by ourselves.
(Ganbat, MEXT alumnus)

Talking about the perspectives towards respect, humbleness, and moralities that he developed during his 5 years of study in Japan, Ganbat said that it has been difficult to keep these behaviours after coming back. Even though it is difficult, he thinks keeping these moral values is what the Japanese alumni can contribute to society. Other interviewees also mentioned moralities and professional values as an important attitude that they share with others. When asked what they mean by moral values, Aagii said, “it’s a manner, discipline and an attitude towards each other—respecting others” while Amar said, “attitude towards the job to complete the work in as much high quality as possible...not just trying to get by”. The faculties, Tsetseg, Zaya, and Tseren also said that it is “an attitude not to bother others, stay away from bribes”.

Tuul gave another simple example of being a role model in her laboratory,

In this lab, we always use distilled water. And I say [to other researchers] that if one has used the water, then he or she should refill the water to make sure that it is ready for the next person...this is a simple example, but we need to think of other people when we work and live...such attitude lacks everywhere. (Tuul, MGL alumna)

Such attitude to “think of others”, “be patient” were emphasized as one of the important disciplines alumni develop. However, such modeling might not have an impact if they are the minority in their community, Amar said,

I can be a model but cannot make others do the same...our way of looking at things can be totally different for the others...sometimes you need to follow the phrase, ‘if you are in Rome, you should be a Roman’. If you are in a blind society, you might as well need to be blind. (Amar, MEXT alumnus)

While alumni can be role models in their community, they needed support and critical mass in the society to make an influence. Although all interviewees said that they try to act as role models especially to the younger generations, they could not tell whether it had an impact or not. Over the years after their return, most alumni adjusted back to the existing norms and organizational culture. The finding from the interview showed that alumni who had individual transformative experience during their program in Japan had higher sense of responsibility towards their community. In addition to educational experience in Japan, they also related to their age, the career status, the cumulative experience of their past, as well as the home country context. Some of them started forming groups and implementing projects to improve the situations in their communities and workplaces. However, many still faced institutional, societal challenges and as time went by many adjusted back to the social norms.

5.4. What challenges do alumni face in applying their knowledge and skills in Mongolia after their graduation?

Alumni faced institutional and systematic challenges that hindered their ability to effectively apply and use their knowledge, connection, and skills developed during their studies and research abroad. This included unsupportive work environment and culture, difficulty to reach the decision-making level, lack of policy and mechanisms that scholarship program alumni. As introduced in section 2.1, alumni did not have a direct path to their current jobs after graduation. Besides changing their jobs, many could not return to their workplaces where they worked prior to their studies. This trend was common even for JDS and MGL alumni who made binding agreements with their employers. Such contracts were not strictly followed by employers, especially when the government agencies get restructured. When alumni returned, many had to wait to join their organizations as their employers made adjustments within their institutions as an attempt to hire them back. Other times, alumni could not get their former jobs back because the organizations had already hired someone else while they were gone, or they were offered lower positions. In the end, among these alumni who could not easily return back, some changed their sectors moving to a private sector or international or non-governmental organizations or even foreign countries, some accepted lower position in their institutions, and some went for other public organizations. On the other hand, those in higher education institutions, medical and research organizations returned to the same job posts, had an easier path to their organizations, while some interviewees were even promoted upon their return. The common challenges presented in this section clarify some of the reasons behind such difficulties that hinder alumni's contribution to their home country.

5.4.1. The mismatch between educational experience in Japan and the home country context

Alumni had difficulties applying their knowledge and skills due to different levels of research works in Japan and Mongolia, but also due to contextual differences in society, economics or culture or because alumni did not develop skills and knowledge more related to Mongolian context.

Alumni become highly specialized in one area of study, especially after doctoral research. However, they might find it difficult to apply this acquired knowledge and skills in Mongolia if their area was not highly developed or specialized in Mongolia. They lacked the

basic technologies and equipment as well as funding sources in Mongolia. For example, although Tuul graduated from the highly specialized lab that conducts research on the chemistry and genetics of plants, she is now working in the basic research lab where she used to work before. This issue was common among researchers in the natural sciences.

However, beyond research specialization or advancement, alumni talked about contextual differences between Japan and Mongolia. Bilguun said,

What is an advantage in Japan can be viewed as a disadvantage in Mongolia. Mongolia has a small population. In Japan, if you are excellent in one area, you can do well. But you can't find a job [in Mongolia] for just one specific skill. You have to have some leadership skills, be able to communicate with others, and in general know the whole system and policy where you are working. We are not very specialized, on one hand, but on the other hand, we don't need to have each person working on one small part... (Bilguun, MGL alumnus)

Bilguun's voice represents other interviewees' concern about differences between Mongolia and Japan in terms of job specialization. Some viewed Mongolia as an underdeveloped country that lacks highly specialized professional jobs; while others viewed that Mongolian context requires a broader understanding of the system in addition to specialization. Tseren called this difference as "chopsticks vs. coin", that in Japan, one studies as chopsticks stuck into the earth—narrow but very deep whereas the Mongolian society works as a coin—requiring them to have diverse sets of skills and knowledge outside their immediate research areas but not very narrow. One of the reasons that Delger, MEXT alumnus, returned back after his graduation was that he did not think working in Japan would be highly relevant or helpful for his career in Mongolia.

If someone who graduated with a degree in IT starts working in IT company or works in their specific area [in Japan], he will become specialized only in one specific job and very deep. For example, although IT is a very big area, that person can become specialized only in writing code. After 10 years of writing codes, they can't find a job in Mongolia. In Japan, employees get specialized in a very specific area and if Mongolia wants to hire that person, we don't have a job in such a specialized area—it might take another 10-20 years for us to reach that level of development to be able to hire that person [to provide with a job to write codes etc]. (Delger, MEXT alumnus)

Another related problem was a mismatch between what is needed in Mongolian context and what the programs offered. Few interviewees shared their stories of changing their research topics after their arrival in Japan. For example, Tseren (MGL alumna) and Maral (MEXT alumna) changed their research proposals in order to follow their professors' research focus.

Another JDS alumna, Zaya, changed her topic because her original professor transferred to another institution. When they were already enrolled in their programs after securing scholarship programs, they could not change their institutions without many difficulties. For example, Maral completed her Ph.D. in engineering but was specialized in the marine study. Because Mongolia does not have an ocean, she could not use her expertise in full capacity in Mongolian context. She said,

[Since graduation,] I've been teaching for more than ten years and I've been working in different contexts in different places. I'm sure my knowledge is in some way helping me in my works. But what I learned is based on Japanese society and context and it cannot be directly applied to Mongolian social, cultural, and economic context.

(Maral, MEXT alumna)

When asked why she pursued this field, she said that the foundational knowledge and skills were useful for Mongolia (that's why she has been employed as a part-time faculty in university) but also because the program she was enrolled in was specialized in this area of study. Another reason for changing their topics and concentration was that they went to Japanese universities without making much prior research on their interested topics and professors in Japan accepted them. Amar and Mandakh talked about having little information about the Japanese programs.

We didn't have a good Internet access, and we didn't have an opportunity to thoroughly look at things. It was a time when we learned things from mouth to mouth not through careful studies on the Internet. I didn't study about where would be the best place to study the topic of my interest. (Amar, MEXT alumnus)

During the interview, he talked about being not highly satisfied with his study outcome because he did not study a field that was more relevant in Mongolia.

My research focused on [dentistry] people above 55-60-year-olds. It was a big potential in Japan but not for Mongolia. First, the service is too expensive for us [the seniors]. Second, we do not have a high population of the aged people. The people above 55 are on pension and their pension is very low. Third, they had spent their youth during socialism and would not spend so much on their teeth. The government pays around 60\$ for their teeth and that is available only once in 5 years. (Amar, MEXT alumnus)

When asked why he chose such a topic rather than more relevant one, he said that first, he had not done prior research carefully; second, he needed to follow the department or the laboratory's field and that the lab project focused on older people. These examples show how important it is for scholarship programs to assist students to choose the right programs at the

right places so that they study what they intend to study. In addition, it shows that an effective communication between scholarship programs and the host universities is a must to convey the program goals and objectives. Such initiatives would improve the chances of students to study areas that are more related to Mongolian context.

In addition to supporting students choose the programs, some alumni mentioned the importance of choosing the right person for the programs who are really determined and motivated to learn from a Japanese university. Javha said,

They [the MGL government] should send really qualified professionals and researchers...otherwise, when I was there, there were, for example, people from completely different fields were selected to study another area of study and they weren't much interested in their areas...because, you know, many go to study in Japan to collect and save some money. So they don't come back...trying to extend their visas...those who were really determined or motivated to study in order to advance their research or career in Mongolia always come back...able to complete and come back. (Javha, MGL alumna)

Such concern was expressed among MGL, JDS scholarship alumni. While MGL alumni viewed that some selection process is not transparent, the JDS scholarship alumni viewed that those in government position with little knowledge of the field are selected to study. These alumni viewed that unless the recipients are really motivated to learn, gain experience rather than pursue other career or financial opportunities, there would not be a good effect of the scholarship program.

5.4.2. Politics and precarious job positions

Alumni cited “unstable government”, “politics”, and “systematic corruption” as main obstacles that hindered their abilities to return to their job in public sector or get a job at a decision-making level in public sector, especially in the government.

The agency I used to work was liquidated [when I came back]. The name of our agency had changed so many times even before then. Since 200, I have been working at this * Center. First, its name was Institution for ****Professional Development Institution, then changed to National Center for **** Development, then to Training and Research Center for ****, then to ***** Development Center. Every time after an election, the name of our agency changes. The agency is liquidated after an election, and a new agency is created. But in fact, everything stays same—the building is the same building, most staffs are same but the directors and the chiefs change, but almost everything else stays same. (Urna, JDS alumna)*

As the state agency goes through a “reform” under the new government, the chiefs and directors also change, as the new government makes sure the agencies are in-line with their policies. As directors and chiefs change, they also tend to hire people that are ‘on their side’. When such change happens while alumni are gone, it makes it difficult to return to the same agency.

When I first went abroad, I made trilateral contract to guarantee employment after graduation to apply my knowledge and experience in Mongolia in practice. I made a contract with the Ministry of Agriculture, studied agriculture and public administration. But when I came back with my degree, the job was gone, the government was changed, and the Ministry officials said that they don’t know about this and told us to figure this problem by ourselves. (Gerel, JDS alumna)

I wanted to return to my agency after my Ph.D. but the directors and staffs were all changed plus my job position was already gone. So I couldn’t go back. (Dulam, MGL alumna)

Regardless of their scholarship programs or the binding contracts, alumni faced similar difficulties to return to their organizations in the public sector. The contracts did not strictly bind employers to hire these graduates. First of all, the political context played a factor. Government agencies lacked sustainable policy that was carried on from one government to the next. The policies changed frequently as well. Following such changes, the new administrations changed the number of job positions and titles.

Even at the institutional level, the directors are changed often...we lack sustainable government policy...there was an initiative to develop an eco-tourism in 2010 and was starting very nicely but then the government changed and no more eco-tourism. It changed into green tourism. Now the green tourism initiative has also disappeared. We ourselves [faculty members] first initiated the eco-tourism and the idea became a reality. We were cooperating with Japanese organizations to conduct training and workshops...Then the minister for the tourism changed. The new minister ‘destroyed’ the previous works changing it to something else...I’m not sure why...maybe there is also a conflict of interest and other economic or financial interests...But such a lack of sustainability in government policy has a damaging effect in our country. (Urgaa, JDS student)

Government policies changed according to the political party’s visions, attempts to get loans from international organizations or to direct funding to another area and so on, but the changes were mostly perceived as a political game. In such context that lacked sustainability and continuity, the employers were not bound by their contracts with the scholarship recipients.

The second reason for why the contracts lacked power was the understanding of the scholarship contract in general. According to alumni, their directors and human resource offices viewed signing the ‘contracts’ as a support for their employees to study abroad not necessarily as a binding agreement to hire them back.

I’m studying abroad for 4 years through the ministry order, right. Then when I came back, they had little idea that I was coming back...after I went there, they were like ‘okay, let us search for your contract’. There was nothing like, ‘this person is expected to return in this year or that year, we have to make sure the person has her position’. (Javha, MGL alumna)

While some alumni faced these difficulties to go back to their organizations due to ‘no vacancy issues’ or structural changes in the organization, others also faced difficulties to secure jobs in the public sector.

Upon returning, it was extremely difficult to work in my field of study, especially at public institutions. My research was on developmental economics, including banking and currency rates. I tried to present my researches to the Mongol Bank through an acquaintance, but they did not accept it. (Badral, JDS alumnus)

Even through an acquaintance, it was difficult to find jobs only showing their degrees. Political affiliation was perceived to be important in the public sector. For example, Urna thinks it’s easier to find jobs if they belong to the political party and know someone from the inside.

It [foreign degree] was perceived better before [in getting jobs] but now it’s all about the political party. Everything is now decided by the fact whether that person belongs to this political party or not. They hire someone by looking at which political party she belongs to. I don’t belong to any party. Someone’s level of education, degrees are not valued higher than political affiliation. (Urna, JDS alumna)

Another MEXT alumni who wanted to pursue government career after coming back said,

The biggest problem is corruption. People come back and try to change the system, so they want to join the policymakers and try to work in the Ministry. They try knocking the ‘front door’ few times sending their CVs, applying through the system but they give up when the ‘door’ doesn’t open. At the end, they have to start their own business or enter private enterprises. (Maral, MEXT alumna)

At the same time, alumni noted that not all government sectors are influenced by politics in such a great depth. Badral noted that positions that require specific skills and knowledge, for example in the Ministry of finances or Mongol Bank are rather stable. However, the political fluctuation influenced the quality of work even if alumni could get jobs in ministries.

*[After my master's degree] in public health policies from the US, I worked in the Ministry of Health. That year Mr. * became the Minister of Health and there was so much dispute all around the ministry...I couldn't make any progress in any work...so I decided that it's useless to work in this sector especially in policy development and moved to [international organization] to work in health * sector. (Urnukh, MEXT alumna)*

Although she wanted to work in policy level, studying public health administration in the US, the upheaval in the ministry hindered her ability to make a progress in any policy works. It also made her believe that working in the government sector is “useless”. After changing her job, she realized that she needed to increase her knowledge in medical science and decided to pursue Ph.D. in Japan to become more specialized in the area as a researcher. After her graduation in Japan, she went to the US to work. She does not want to work in the public sector anymore due to low pay, inefficiency, and work environment (e.g. lack of technique, access to international journal).

Similar to Urnukh, alumni have gone to other foreign countries pushed by the lack of satisfying jobs that would use their knowledge efficiently but also offer a high salary. Gerel said,

From my cohort, out of 5 people who went to Japan only 2 are in Mongolia. The 3 are abroad. Because there wasn't a good workplace to offer satisfying job position, they had to pursue their life and career and that life and career can be anywhere. It's difficult to blame them or praise them. (Gerel, JDS alumna)

Similarly, Tseren also said that all MEXT graduates from her cohort either stayed in Japan or went somewhere else such as the USA to pursue a higher income.

However, it was comparatively easy to return to or find an employment in HEIs and research institutions, especially when they came with doctoral degrees. Baatar, the MGL alumnus, said “I entered my work within a week of coming back, and was promoted to this job” while Mandakh, non-academic staff at HEI said,

Generally, it [going back to their job] should be a smooth process to return to your work under JDS agreement, but it's difficult for most state organizations because they already hire someone else for the position or the institution gets restructured due to political shifts. As for me, I didn't have any issue; instead, I was promoted. As an educational institution, my [M] University [in Mongolia] has treated well for getting an educational degree from a well-recognized university. (Mandakh, JDS alumna)

As higher education institutions are aiming to increase the number of doctoral degree holders, most institutions were welcome to hire faculty members back. While some faculties were in touch with the home departments in Mongolia during their studies in Japan collaborating on joint projects (that sometimes existed even before their study), others could join HEIs without any prior work experience in that institution. Maral, MEXT alumna said, “They offered me associate Professor’s position because I had Ph.D. degree. It seemed too high position, so I wasn’t sure if that was okay but they said if you have Ph.D., you become an associate professor”. Consequently, she worked in state university as a part-time professor before deciding to join a private institution for a higher pay.

5.4.3. Work environment, culture, and norms

Interviewees talked at length about issues in their sector that frustrated them and hindered their work outcome. Among them, work environment sometimes posed challenges for their productivity. This included a lack of coordination among different institutions, lack of teamwork within the institution, lack of value on research and other organizational cultures.

Mongolia lacks group work culture and no one to take responsibility...also there is a big gap in the knowledge and skills among doctors...some are highly skilled and knowledgeable while others are left behind. So it's difficult to make teams and work for a common goal. (Solongo, MEXT alumna)

Another alumnus who worked in a private sector was frustrated because the decision was made too fast without considering all the risks and he feels that the work environment, especially the executives lack value on research.

The investigation should be done before meetings. But here [in Mongolia], we are not good at running investigations or doing research. They introduce the issue and want to solve it right away in the same meeting on the spot...Aha...that's the main issue, right. In Japan or in America, they consider the risks and conduct research regarding the risks associated. 100 people work investigating risks from different areas, then the representatives introduce their results, associated risks, and the possible

profit/income/ to the meeting. Then only 10 people discuss this study results and then make the decision comparing the risks and the benefits from multiple perspectives. In that case, there would be a quick decision. But in Mongolia, there isn't any previous research on the issue--they introduce the issue at the meeting and want to solve it right away. (Bayar, MEXT alumnus)

Other institutional challenges were underdevelopment of the sector, lack of funding for research, or low pay. Amar said it's difficult to prepare researchers in Mongolia due to financial restraints.

In Mongolia, we don't have a budget for a good, fundamental, detailed research to prepare students, so we can't have a major research project here. (Amar, MEXT alumnus)

On the other hand, alumni faced resistance when they initiated changes or when they pointed out issues in the workplaces. Coupled with challenges such as low pay and high workload, such negative attitude towards their initiatives had an impact on alumni. Tseren said,

When someone is active, that person gets more criticisms and that can really stress her. So naturally, after some try, the person's level of involvement and activeness loosens and starts to get discouraged. People just start thinking, 'okay, I'll just do my work, teach my classes, get my salary'. (Tseren, MEXT alumna)

Similarly, Tsetseg said,

It's really difficult to be active with work overload, little pay, and consistent criticisms... As time passes, I think my social involvement has decreased. In the beginning soon after I returned, I was more active in the Japanese alumni association at our university—a network of professors at our university who received their Ph.D. degrees from Japan. I used to go to every meeting, make initiatives. However, the person who initiates and takes an active role in implementing new works, initiatives, is the person who is often criticized. And every time we do something new, we were criticized... I don't want to blame others, but to be critical, we [Mongolians] tend to be very subjective in dealing with issues—we like to personalize the issue and instead of criticizing the work, people focus on the person who is doing it. For example, people would say, 'because you are like that, your work is like this'. Instead, it could be, 'if you do it this way, it will be better', talking about the work quality is better than just blaming the person. (Tsetseg, MGL alumna)

Both alumnae said that they are no longer stressed out to fight the system. When asked why and if the environment has improved, they said that they have adjusted to the system and stopped trying to make changes. Tsetseg further said,

I'm adapting to this culture and I'm also thinking that there is no need to take such issues so seriously. I realized that if I don't learn to stay calm even when there is such influence, I would suffer more. (Tsetseg, MGL alumna)

On the other hand, un-supportive work environment can push alumni to go to different sectors or stay abroad. Nergui, MGL alumna said, “For example, some people delay to return to Mongolia because the working environment is not appealing”.

5.4.4. Difficulty to reach decision-makers

Across private and public sectors, alumni felt that they had an opportunity to share their knowledge and skills but not much chance to influence the decision-making level. After coming back to a government agency, Urna who tried to share her research findings with her department chief and colleagues found it very difficult to get their attention. She said,

We don't understand the value of research. People value other things, like money, or political membership. If I were an acquaintance of a political leader, they would be probably listening to everything I'm saying. (Urna, JDS alumna)

In addition to perceived value on political affiliation over knowledge or research, alumni faced difficulties to reach decision-makers because those on top did not share similar values. Although alumni get specialized in one area, the person above them, usually in the ministry or science foundation centers did not have an in-depth knowledge of all areas and can easily favor one area of study over another without understanding the significance.

Although the universities prepare students in specialized fields, the ministry has only one person in charge of protecting plants. That person should be knowledgeable of all different fields...but it is difficult. (Javha, MGL alumna)

Javha further talked about the science center providing research funding for plants but not to soil although without studying the soil, the plants would not grow properly. Another alumna, Solongo could not easily share her initiatives with the Ministry.

The ministry specialists do not attend the events organized at the grass-root level. For example, when we wanted to share our initiatives with related officials in the ministry of finance, education, and foreign affairs because our work depended on all these ministries, no one attended the event. The Ministry officials were all invited but none showed up at the meeting. Yet, the ministry makes the decision. (Solongo, MEXT alumna)

Getting disappointed, she is now trying to collaborate with others with similar passion from different fields (by forming the NGO), not depending on the superiors' role in helping them.

Moreover, alumni had a lack of confidence in merit-based promotion process to leadership positions. Amar said,

After studying in a developed country, alumni come back home with enthusiasm and motivation to work in Mongolia, but as we see one thing is clear—see who is getting the decision-making positions, who's leading the government, everything is solved through a personal network, backdoor, and bribery. This is the truth. The motivation and enthusiasm of alumni cannot overcome the social and political situation and corruption. (Amar, MEXT alumnus)

My research study is, for example, very related to our Ministry [construction], but it's difficult to present my study result to this new Minister. I think such an opportunity to share our result is most needed. (Maral, MEXT alumna)

The issue of politics and corruption resurfaced again when alumni talked about the opportunity to influence decision-makers. They not only viewed getting a job at a decision-making level was out of their reach but also perceived that the decision makers did not hear their voices and experiences. Although JDS program provides an opportunity for the graduates to share research results or significant points from their experiences, such meetings are held within the internal circle of alumni without reaching a wider audience.

5.4.5. Lack of policy to support graduates

As mentioned above, the scholarship programs do not provide support for their graduates when they return back. Among three scholarship programs, only JDS facilitates post-graduation meeting with alumni inviting them to share their research. While MGL scholarship encourages alumni to report upon their return by submitting their employment contracts and social security documents, there is no support for them to find jobs. Ganbat, the MEXT alumnus, mentioned, “The possibilities to work and apply our knowledge in practice is the most important.” Similarly, other alumni expressed the need for policy, regulations, and other supports to assist them to apply their knowledge and skills in Mongolia more efficiently. Urgaa said,

We have many students studying abroad for higher and professional degrees; we also have many highly skilled graduates from domestic universities. The graduates have enough innovative ideas and motivations. The most important thing is to have the

policy to support these graduates, to unite them, and lead them. We are lacking such a structure. (Urgaa, JDS alumnus)

Another alumna said,

If the government or the Ministry appoints graduates from the top foreign universities to job positions that they're specialized in, making one team with alumni not only from Japan but also from US or Germany, it would be highly useful. For example, in agricultural policy development, we can have alumni conduct joint research about what new ideas might be applicable or not applicable in Mongolian environment and society. If the government does not value or ignores research work then alumni wouldn't do any research works on their own. Instead of producing research when no one cares, it's better to pursue my work that actually pays off. (Gerel, JDS alumna)

The issue is not only about the alumni from Japanese graduate schools. The issues concern wider problems about the value of research or supporting research works in general. When individuals perceived that their career will improve by studying in foreign university and take risks for example by putting their apartments as a collateral, it hurts more when they cannot join the organizations they planned to work in or cannot apply their knowledge. Another alumna also said,

It has been 3 years since coming back but there have been no project calls from the Ministry related to [my field] although they were the ones who sent me to study in this field. (Javha, MGL alumna)

This issue is again connected to the lack of sustainable policy to persistently develop the sector. On the other hand, it is connected to the lack of coordination between different organizations and units. Urgaa said,

At higher education institutions, we are comparatively independent to pursue research. But then we lack much support from the local government and communities as well...for example, I conducted research on water in the Gobi and it's a crucial study for the local community. But I largely depended only on my own personal connections to conduct my research there. The local government is not cooperative. If I don't know anyone in the area, it's very difficult to conduct the research...If the local government supports, the result will be more efficient and they can even use the research results. Without such support, the research has less impact just publishing some academic papers. (Urgaa, JDS alumnus)

Urgaa gave rich examples of how the research was viewed as an individual person's work rather than for the wellbeing of the community both at government and community levels.

This is more than supporting scholarship graduates, as the lack of support for researchers affects the impact of research studies.

In addition, alumni talked about lack of guidance, especially from the Mongolian side. While they had their own individual expectation, motivation to study in Japan, they had no common understanding of what the Mongolian government expects from the foreign graduates.

From the JDS side, they give lots of inspirational speeches about how are expected to learn and use the knowledge in the institutions in Mongolia when we go back. They talk about what we should learn, what we should implement when we return. But neither during our studies nor after we return, the Mongolian side is silent. They could meet us before we go and send some kind of message. But there is nothing.
(Urgaa, JDS alumnus)

Although the government documents to support foreign study states that the highly educated graduates from well-known universities are expected to fill the skill gap in Mongolia, to bring knowledge, network, and know-hows, the message is not delivered to the actual students leaving to study abroad. While in some years the Ministry of Education received and met MGL scholarship recipients, in other times there was no meeting besides bureaucratic procedures to make contracts and put collaterals. Dulam said,

There was no meeting or orientation or anything before we went to Japan or after we came back. Besides forming the contracts, they [scholarship committee] did not actually emphasize that we have this and that responsibility to return back like “you are going to Japan under the order of this Ministry. After 4 or 5 years of your study, you are expected to return and do this and that. (Dulam, MGL alumna)

On the other hand, another MGL alumna said,

The Minister of Education met me in person when I went there for the final interview. He told me that they selected me and expect me to learn [social science field] well and come back and apply the knowledge efficiently in Mongolia at least for 5 years.
(Anar, MGL alumna)

Depending on that year's scholarship selection committee members, the recipients received some or no message. This made both recipients and the administrators not very serious about the contracts. While MGL loan-scholarship students could stay abroad for further degrees and delay their return, the Ministry did not enforce alumni to work for the organization that signed their contracts. The manager at Education Development Fund, former State Training Center, that manages the contracts with MGL scholars said,

We have an unwritten policy to accept those who worked in Mongolia for 5 years even if they did not work for the government or any public sector. Although we prefer the graduates to work for the public sector, it is just difficult to find jobs in the public sector sometimes. (Manager at Education Development Fund)

In other words, the center has been freeing those alumni from their collaterals who worked in Mongolia for 5 years not being strict to enforce the contract and make them work in the public sector. Alumni can perceive this flexibility positively as it can enable them to pursue better employment conditions. However, at the same time, such an attitude makes it even difficult to return to the public sector even if alumni want to go back. Interviewees expressed many times that they wanted to go back to the public sector but there was little support to help them. Without proper support and policy, the public sector is losing many talented professionals.

Another area that alumni asked for support was receiving information about job opportunities while they are abroad. Baatar, for example, talked about receiving negative news about Mongolia from social media, TV, and family and friends.

while we were abroad, we always received bad news about Mongolia from the social network, when we search for news in Mongolia—it's always about something that is not working well or that, so the information that Mongolians abroad receive impacts us negatively in our decisions to come back to Mongolia. They write always from the negative sides. Also, when we talk to our family and friends in Mongolia, they advised us to stay in Japan. (Baatar, MGL alumnus)

Although Baatar was able to get an appealing job in Mongolia upon his return, he had considered taking jobs in Japan due to such negative information he received in Japan. While there are sectors, organizations that are more closed and unwelcoming for alumni, there are many positive opportunities that welcome the graduates back. Lack of information about such opportunities in Mongolia could lead graduates to stay abroad for longer. On the other hand, lack of information also leads alumni to hold an unrealistic expectation to work in a sector that is poorly or under-developed. Nergui mentioned the difficulty of accessing information and having a clear sense of job opportunities in Mongolia. She said,

We graduate with degrees from foreign universities and gained some work and research experience in Japan. Then we want to return to Mongolia. But it's very unclear how to find jobs in Mongolia. I have professional connections in Mongolia but it's difficult to find jobs. Should I ask them to introduce me jobs? Other students also discuss this. Do we have to talk through our connections? For example, we want

to continue our research but how do we apply for researcher's position in Mongolia, like at the Academy of Science. (Nergui, MGL alumna)

While alumni were satisfied with their learning experience in Japan to some extent, they were frustrated when they could not directly apply their knowledge and skills when they returned. The main challenges were 1) mismatch between what they learned and the home country or institutional context, 2) political instability and its' influence on public sector in general, 3) unsupportive working environment, 4) difficulty to be heard at decision making level, 5) and lack of support for joint collaborative works. The lack of support also included the home country's social context that undervalues research works.

This chapter reported some of the findings from the phenomenological study. Most alumni regardless their scholarship program types could achieve a perspective transformation either driven by their own interests to explore and understand Japanese society, active observation, and reflection skills or by embracing disorientating experiences that challenged their assumptions of self and others. High expectation from professors, research work demand, part-time work experiences as well as the presence of children pushed alumni to understand Japanese mentality, local norms, and culture. However, lack of reflective practices and little opportunity to act on their new perspectives hindered alumni to fully experience transformative learning.

Alumni were generally positive about their contribution to their communities in the home country (both through job and other initiatives such as NGOs and community service works). However, they viewed that more strategic policy to effectively utilize the scholarship programs would increase the impact of their works. Although JDS and MGL alumni had formed binding agreements with their employers and the scholarship programs that required them to work for the public sector for certain period of time, many experience challenges to (re)join or stay in the public sector. Compared to government agencies, working for higher education institutions and research centers were viewed to be more stable and easier to influence others—students and other community members. However, there were also structural and political challenges in these institutions. At the same time, alumni saw that the progress comes slowly. As Amar said, the Mongolian social context, a nomadic country up until 1921 that changed to socialism then to democracy in 1990, has brought much change in few years; but changing people's values and minds take much time.

Chapter Six. Findings from Online Survey and Follow up Interviews

The main aim of the questionnaire was to compare alumni's learning experience and post-graduation trajectories by their scholarship programs and other demographic features. This chapter first presents the main findings from the questionnaire followed by the findings from the follow-up interviews that elaborate the quantitative findings. The findings are divided into six parts: 1) the extent of perspective transformation among survey participants, 2) the learning activities that helped them experience transformative learning, 3) general feeling regarding their experience in Japan, 4) individual-level outcome, 5) perceived contribution to home country development, and 6) challenges and necessary supports to increase the social impact of scholarship programs for the home country.

6.1. The extent of Perspective Transformation

The table 6-1 shows that out of 101 alumni surveyed, 53 alumni (52.5%) indicated experiencing transformative learning during their degree programs in Japan. In other words, one of two alumni surveyed reported a deep shift in their perspectives, assumption, attitudes, concepts, beliefs, and behavior.

Table 6-1 *Participants Indicating Perspective Transformation (PT)*

Number of participants surveyed	Number (%) indicating PT	Number (%) indicating non-PT
101	53 (53)	47 (47)

Table 6-2 illustrates almost twice as many women as men participated in the study. 54% of women and 50% of men experienced transformative learning.

Table 6-2 *Gender of Participants Indicating Perspective Transformation (PT)*

Gender	Number (%) indicating PT (%)	Number (%) not-indicating PT	Total
Female	34 (54)	29 (46)	63
Male	19 (50)	19 (50)	38

Table 6-3 illustrates the age categories of alumni who indicated transformative learning in Japan. Due to a small number of participants who were above 41, the age groups

of 41-45 and 46-50 were combined in cross-table comparisons. While almost half of those in the 31-40 age group indicated transformative learning, most of those above 41 age group indicated perspective transformation. While this could be due to small sample size, those above 40 years had studied in Japan in the 1990s when the differences between Japan and Mongolia was much higher. In addition, as years go by alumni could think more positively about their experiences abroad.

Table 6-3 Ages of Participants Indicating Perspective Transformation (PT)

Age	Number (%) indicating PT	Number (%) of those not indicating PT	Total
26-30	9 (50)	9 (50)	18
31-35	15 (45)	18 (55)	33
36-40	16 (47)	18 (53)	34
41-45	9 (75)	3 (25)	12
46-50	4 (100)	0 (0)	4

Table 6-4 reports perspective transformation by scholarship programs. 61% of JDS scholarship alumni, 49% of MEXT scholarship alumni, and 43% of MGL scholarship alumni indicated perspective transformation. The cross-tabulation test did not show statistically significant relationship between scholarship programs and the transformative learning. However, the table 6-4 shows that JDS alumni reported highest percentage of transformative learning than the other two programs. More than half of MEXT and MGL alumni in this study did not have full PT transformation. This difference can be due to the programming differences. JDS scholarship, especially in recent years, organizes more networking and other events for their students while in Japan. In addition, they provide the longest orientation program (1 month) for the students while the other two do not organize any specific orientation programs for the grantees in Japan.

Table 6-4 Scholarship Programs of Participants Indicating Perspective Transformation (PT)

Scholarship programs	Number (%) indicating PT	Number (%) of those not indicating PT	Total
MEXT Scholarship	18 (49)	19 (51)	37
MGL Scholarship	10 (43)	13 (57)	23
JDS Scholarship	25 (61)	16 (39)	41

Table 6-5 reports the academic degrees of participants who did or did not indicate perspective transformation. There were not many differences between the two groups. Only one-third of all respondents had received doctoral degrees with majority studying for master's degree. This big gap can be due to the fact that JDS scholarship program sent students only for master's degree program (until 2018).

Table 6-5 Academic Degrees of Participants Indicating Perspective Transformation

Academic Degree	Number (%) indicating PT	Number (%) of those not-indicating PT	Total
Masters	39 (53)	35 (47)	74
PhD	14 (52)	13 (48)	27

Table 6-6 presents fields of study for those who indicated transformative learning in Japan. Nearly half of respondents studied social sciences. Due to the small number of participants in Arts and Humanities and Education, alumni in these groups were combined as others in chi-square analysis.

Table 6-6 Fields of Study of Participants Indicating Perspective Transformation

Fields of Study	Number (%) indicating PT	Number (%) of those not-indicating PT	Total
Arts and Humanities	1 (33)	2 (66)	3
Social Sciences	20 (47)	23 (53)	43
Natural Sciences	9 (50)	9 (50)	18
Engineering	7 (54)	6 (46)	13
Agriculture	4 (50)	4 (50)	8
Medicine and Medical Science	8 (67)	4 (34)	12
Education	4 (100)	0 (0)	4

Table 6-7 presents the current location of those who did or did not indicate perspective transformation. 54% of respondents in Mongolia and 43% of respondents from abroad indicated perspective transformation.

Table 6-7 *Current Location of Participants Indicating Perspective Transformation (PT)*

Location	Number (%) indicating PT	Number (%) not-indicating PT	Total
Mongolia	47 (54)	40 (46)	87
Abroad	6 (43)	8 (57)	14

Table 6-8 shows that the majority had a disorienting dilemma or an experience that made them question their prior beliefs towards self and others. While only half had gone through critical reflection, little more or 60% reconsidered their behaviours. Finally, around half of respondents acted on their new beliefs and perspectives.

Table 6-8 *Distribution of Respondents in Perspective Transformation Quadrants*

Transformative learning quadrant, description	Number	Percentage
I: Disorienting Dilemmas	86	85
II: Critical Reflection	53	52.5
III: Reconceptualization of behaviour	60	59
IV: Action or behaviour change	53	52.5

In the next step, chi-square independence test examined whether the perspective transformation quadrants and the scholarship programs, areas of study, and other demographic variables had any statistically significant relationship. There was no statistically significant relationship between perspective transformation quadrant and their demographic variables, in other words, the respondents had perspective transformation regardless of their scholarship programs, areas of study or other demographic features.

Table 6-9 *Chi-square Contingency Table between PT Quadrants and the Demographic Variables of Respondents*

Main demographic variables	I. Disorienting dilemma	II. Critical Reflection	III. Reconceptualizat ion of behaviour	IV. Action or behaviour change
	$\chi^2 (df) p$	$\chi^2 (df) p$	$\chi^2 (df) p$	$\chi^2 (df) p$
Gender	0.25 (1)NS	0.00 (1)NS	2.24 (1)NS	.15 (1)NS
Age	3.73 (3)NS	1.29 (3)NS	.3 (3)NS	6.41 (3)NS

Scholarship	1.76 (2)NS	2.13 (2)NS	1.72 (2)NS	2.15 (2)NS
Academic degree	0.09 (1)NS	1.63 (1)NS	0.00 (1)NS	.01 (1)NS
Area of study	4.66 ()	5.02	4.06	2.66
Current location	.56 (1)NS	2.34 (1)NS	1.85 (1)NS	.60 (1)NS

* $p<0.05$, NS= $p\geq0.05$

Follow up interview result on the extent of perspective transformation

During the follow-up interviews, alumni were asked to elaborate on their answers to the questionnaire. They gave details when they realized that their previously held beliefs had changed. For example, Aldar's perception of 'Professor' in university level had changed.

My supervisor had told me that he is not going to teach me. So, I wondered how I would conduct my research if my professor wouldn't teach me. He told the same thing to his masters level students. Then I realized that my understanding of 'professor' was very different. There, 'professor' is someone to direct students, facilitate their works, and if they make mistakes, they will correct, they are there to supervise and direct. My experience of being a student in Mongolia was very different. We learned to wait and receive information from professors while there [at Host University] learning is much more self-directed. (Aldar, MGL alumnus).

With a passion to become an educator and prepare future students, Aldar was consciously making observations and reflection of his experience while in Japan. He now views his role as a teacher as someone who facilitates and directs his students not just someone who passes new information. However, it is challenging sometimes as he finds that the students come underprepared for such independent works and to be accountable to their learning.

Similarly, another alumna, Uyanga shared her experience as elaboration. She became more independent in her own work and study. Instead of asking others for answers, she now prefers to search for answers by herself.

The first 6 months were extremely challenging for me. I was in a new environment learning Japanese from the beginning. They gave me a tutor-student but I couldn't ask everything from her. She also has a life and her own issues. Instead of relying on others, I had to push myself to find answers to my questions. One of the best qualities I adopted in Japan was this, to be independent. Here we like to ask others instead of searching for ourselves. Although two-year is not a very long period, it was enough time to see things differently. For example, here people like ready-made things and be spoon-fed instead of being active or do not mind causing trouble for others. (Uyanga, MEXT alumna).

During her master's study, she had to study Japanese not only for everyday life but also for academics while pursuing her research. She talked about studying at night when she wasn't working in the lab running experiments or doing measurements. Coming back, she was frustrated because others did not seem to be independent or seemed to bother others much more.

Another alumna, Sara gave a more detailed account of the times that pushed her to grow and expand her perspectives.

I learned so many things in Japan. Before my study, I used to think within the box, evaluate things based on the cover of the book, couldn't see much inside the book... Studying in Japan helped me expand the way I looked at things. The Japanese professors, at least my professors, didn't scold or anything but I learned so much from them. I used to work under someone and was used to being told to do something. But in Japan, I had to learn to study and conduct my research on my own. I learned to think like 'I have to do this, I have to prepare this, read this or expand on this idea before the Professor arrives' ...

The first few months were really difficult. My professor used to come to our university only once in a few months. This one time, he came back and checked my work. I was a senior specialist in government agency before my study but in fact, I didn't know how to read academic articles and present myself clearly and logically. [The professor] used to give a whole book to read and present after a month or so. We were supposed to present to him when he came back to check us. That day I presented and there were many other students, many Chinese students, and I couldn't do well. The professor criticized my work and I argued with him and then started crying after some debates. So funny. I was very disappointed with myself and didn't want to look bad in front of other students, especially the Chinese students. It was a little humiliating... He was very surprised and asked why I was crying... well, I cried because I didn't want to lose and I thought I could have done better. Plus, the professor was always absent because he didn't live there—and I couldn't see him and ask him questions freely. But since then I tried to have open communication with my professor, communicated more often, and started trying hard to prepare. Now I rarely give up easily—I try hard to complete work. I think I became more resilient. (Sara, JDS alumna)

⁷Being a former officer in a government agency, Sara did not expect that she would lack academic skills to successfully study in Japan. However, she found that other students, mostly Chinese students were well prepared and better off than her. In addition to this academic challenges, she had to question her assumptions about Chinese students. It is a stereotype among many Mongolians to see Chinese as weaker or one of the main competitors. She further talked that she actually learned much from these Chinese students and was amazed to see their academic preparedness and teamwork abilities. In the end, although she struggled, she embraced the academic challenge posed by her professor and her

classmates and tried harder to prove herself. This made her more open-minded, but more importantly more resilient.

6.2. Learning activities

Alumni were asked to check all the learning activities that they associated with their transformative learning experience. Among those who had perspective transformation or, Quadrant IV, non-academic learning experiences such as community interaction (67.9%) and observing Japanese people's way of living (64.2%) followed by supervisor's challenge (58.5%) and research process (56.6%) were selected the most. Tables 6.10-6.12 present cross-tabulation of learning activities and their perspective transformation (Quadrant IV).

Table 6-10 *Person associated with perspective transformation*

Learning activities	Frequency in total respondents	Frequency among (n=53) respondents with PT (%)	χ^2	df
Supervisor	46	31 (58.5)	7.54**	1
Other students (<i>senpai</i> students and peers)	33	26 (49.1)	13.61**	1
Mongolians in Japan	16	12 (22.6)	3.87*	1

** $p<0.01$; * $p<0.05$; NS= $p\geq0.05$

As table 6-10 shows, the influence of supervisors, others students, and other Mongolians in Japan was highly related to alumni's perspective transformation. The Cramer's V test shows supervisors (0.27) and other students (0.37) had medium level effect size while Mongolians in Japan (0.19) had low effect size.

Table 6-11 *Educational activities associated with PT*

Learning activities	Frequency in total respondents	Frequency among (n=53) respondents with PT (%)	χ^2	df
Research work	46	30 (56.6)	5.50*	1

Discussion	29	24 (45.3)	14.96**	1
Critical thinking	32	23 (43.3)	7.07**	1
Class project	18	12 (22.6)	1.77NS	1
Assignments	26	16 (30)	1.15NS	1
Orientation and language program	25	18 (34)	5.08*	1
Events for international students	35	26 (49)	10.22**	1
Participating in conference and seminar retreat	34	23 (43.4)	4.73*	1

** $p<0.01$; * $p<0.05$; NS= $p\geq0.05$

As the table 6-11 shows academic activities such as research work, classroom discussions, critical thinking activities, orientation, and Japanese language programs, events for international students and conference and seminar experiences had a statistically significant relationship with alumni's perspective transformation. The Cramer's V test showed a medium effect size for these activities.

Table 6-12 *Socio-cultural activities associated with PT*

Learning activities	Frequency in sample	Frequency among (n=53) respondents with PT (%)	χ^2	df
Interaction with Community members	62	36 (68)	2.01NS	1
Volunteering	20	13 (24.5)	1.57NS	1
Interaction with foreigners in Japan	30	20 (37.8)	3.45NS	1
Observing Japanese way of living	57	34 (64.1)	2.70NS	1
Work experience	30	18 (33.9)	.97NS	1

** $p<0.01$; * $p<0.05$; NS= $p\geq0.05$

Although socio-cultural activities such as community interaction and observing Japanese way of living were selected most by respondents who experienced some level of transformative learning these areas did not have a statistically significant relationship with

their level of perspective transformation with p -value more than 0.05. On the other hand, most educational activities had a statistically significant relationship with perspective transformation, quadrant IV, even though these activities did not have a high frequency.

The chi-square test between scholarship programs and the learning activities was conducted to see if there were any significant differences between scholarship programs. The findings from the phenomenological study showed that while JDS program offers longer orientation program for the grantees the MGL scholarship students did not have any orientation specifically designed for them and sometimes not even an official meeting. The chi-square test found that learning activities such as orientation or events for international students did not have a statistically significant relationship with scholarship types. However, there was a statistical relationship between scholarship programs and 'work experience' ($\chi^2=29.661, p=.000$, Cramer's $V=.542$). 65.2% of MGL scholarship respondents, 37.8% of MEXT scholarship, and 2.4% of JDS scholarship respondents indicated that they had work experience that influenced their transformative learning experience. This is connected to scholarship conditions that forbid JDS students to work during their studies or stay in Japan after their program ends. This finding indicates an exposure to work or internship experience could be a beneficial learning experience for scholarship students.

Follow-up interview results on learning activities that played important factors.

Previous quotes that illustrated perspective transformation emphasized the academic environment as an important factor for the transformative learning experience. Az indicated that the supervisor was the main factor for her perspective transformation. She elaborated what she meant.

I thought of Prof. A, who used to conduct research on Mongolia. He was very strict. First, he was my supervisor then retired before I finished. He helped me find my research topic. I wanted to study cashmere and there were many ways, points to study cashmere. He helped me to see my study from a different angle. (Az)

Sara indicated that her professor's challenge, research works and academic environment, in general, played an important role in her learning experience. She said,

I faced many struggles to critically read academic literature, synthesize, and present. I was quite older among my classmates and I had a high professional profile of working in a government agency. But then I realized that I didn't have many skills that I didn't know I lacked. I was a senior specialist and basically had my nose in the air. Very funny and embarrassing as I think now. (Sara, JDS alumna)

In addition, her *senpai* helped her see embrace the challenges and grow. She said, “My *senpai* was the most supportive person. She had leadership skills, perspectives to view at things. She was my role model to overcome the challenges”.

Dondog, the MEXT alumnus, indicated that his interaction with community members was important to expand his perspectives. He said, “I used to teach English to older Japanese people. They were very hard working, resilient, determined, and it really expanded my view of old people. They used to study hard, motivated to study, I didn’t really expect this.” These findings supported the earlier accounts of learning activities that pushed alumni into transformative learning experiences—the academic challenges through supervisors and research works, work experiences, and interaction with community members.

6.3. General Feeling Regarding Their Experience in Japan

Table 6-13 presents that more than 70% of respondents viewed that they developed soft skills such as organizational skills and more than half viewed that they were able to carry out research at high level during their studies in Japan, expanded their horizons, developed friendly attitude towards Japan and Japanese people, and wanted to encourage others to study in Japan. Half of the respondents viewed that teaching quality was very good. However, less than one-third of respondents made Japanese friends, and one third viewed that they developed a stronger national identity.

Table 6-13 *General feelings towards the study abroad experience in Japan (MEXT, 2016)*

	MEXT (%)	MGL (%)	JDS (%)	Total (%)
I developed soft skills (organizational skills etc.)	81.1	69.6	65.9	72
I was able to carry out research at high level	75.7	78.3	58.5	69
I was able to expand my horizons	75.7	52.2	70.7	68
I developed friendly attitude towards Japan and Japanese people	70.3	60.9	61.0	64
I would like to encourage others to study in Japan	51.4	60.9	75.6	62
Teaching quality was very good	51.4	39.1	53.7	50
I developed stronger national identity	54.1	34.8	17.1	35

I made many Japanese friends	40.5	30.4	22.0	30
Total number of respondents				101

While more than 70% of MEXT and MGL students viewed that they were able to carry research at a high level, around half of JDS alumni agreed to the statement. JDS scholarship grantees all studied in master's degree program where research might not be as intense as in the PhD program. Chi-square test showed that alumni's satisfaction in their research works differed by their academic degrees ($\chi^2(1) = 4.368, p=.037$, Cramer's $V=.208$). In other words, there was a medium sized statistically significant relationship between the academic degrees and the alumni's satisfaction with their research works.

Another significant difference was that little more than half of MEXT alumni indicated that they developed a 'stronger national identity as a Mongolian' while the majority of MGL (65%) and JDS scholarship alumni (83%) disagreed. The chi-square test between scholarship programs and 'I developed stronger national identity' showed a statistically significant relationship ($\chi^2=11.746, p=0.003$ with Cramer's $V=0.341$). However, there was no difference by academic degrees, areas of studies. Although the survey did not collect information on the language of instruction, all JDS alumni studied in English due to program requirement. In addition, being funded by its own government could make recipients more nationalistic as Aldar discussed his increased sense of responsibility for the home country and sense of pride while he studied in Japan to be supported by his own government.

Alumni's opinion on teaching quality differed slightly by scholarship programs. Half of MEXT and JDS alumni agreed that the teaching quality was very good while the MGL alumni's majority (61%) disagreed. This difference did not yield any statistical difference. Alumni's opinions were equally divided when compared by their academic degree programs and areas of study.

Follow-up interview on learning experience in Japan

All interviewees indicated that they developed soft skills such as organizational or communicational skills, expanded their horizons and networks. However, they could not make many Japanese friends. Uyanga commented,

I became friends mostly with foreigners especially those in the same lab. We had a few Japanese students but they were very quiet and I didn't really become friends with them. But the foreigners all had struggled from language to culture and we used to understand each other. Also, the university organized events for international students to learn about Japanese culture. (Uyanga, MEXT alumna)

Erdene commented on skills,

I developed team-work skills. During classes, we used to work in teams with other international students, with Chinese, Indian, Uzbek and others students besides Japanese students. I learned much from Chinese students. They were efficient to work together, maybe because they were selected from much more people, they seemed to be very well prepared. Such works together with others helped me develop my intercultural skills too. (Erdene, MGL alumni)

Although most survey respondents indicated that they conducted research at a high level, Az did not think so. When she was studying 16 or more years ago, her program was just developing to be taught in English. She found the program to have low quality as the professors' and students' English seemed 'incomprehensible'. Another student, Sara, could not pursue the topic she was interested in because her supervising professor had to change after the first year. Plus, she had a Japanese language barrier to collect data from local citizens to pursue the topic she was interested in at first.

My professor had to take a medical leave and we were assigned to another professor. And we had to follow our professors' field—I could not pursue a field that is very different from his field, right. Besides, I had a language barrier if I wanted to pursue the area I was interested in. I couldn't collect data from local communities. I visited Japanese care centers together with another group of students who were conducting research on the similar area but from different field of study. But once I got there, no one spoke in English and because I was studying in English, my Japanese skill was not sufficient to communicate and conduct my research. I had a time limit to collect data. So, I had to change my topic to a completely different area. (Sara, JDS alumna)

As government-funded scholarship students, they studied in top-ranked Japanese institutions. For many studying in Japan broadened their horizons and alumni generally had a positive memory of their learning experience, of Japan and Japanese people. However, they could not build strong personal relationships with Japanese students or residents. This finding was also similar to the qualitative study themes.

6.4. Individual Level Outcomes

Return to jobs

41% of respondents returned to their previous jobs and 29% were promoted to higher positions while 14.4% could not get their old jobs back and 13.2% did not want to return to their previous organization. 18 alumni did not answer this question as 14 of them were abroad.

Table 6-14 *Alumni's Return to Workplace*

Were you able to return to your job after graduation?	Number of respondents	The percentage in the sample
I could not get my job back	12	14.4
I did not want to return the organization	11	13.2
I was demoted	2	2.4
I returned to my position	34	41
I was promoted to a higher position	24	29
Total	83	100

$SD=2.72, M=4.16$

Figure 6-1 shows that alumni from three programs had a very similar return path. The two alumni who had lower job positions upon their return were both JDS alumni. Among those who could not return back to their old positions, JDS alumni had a slightly higher percentage (17%) followed by MEXT (13%) and MGL (11%). Overall, this finding showed a better result compared to the qualitative findings in terms of return to the previous employer with more than half of all respondents being able to return to their old employers. Among them, faculty members in HEIs (41%) had the highest proportion while other jobs such as government work positions, the private sector, researchers in non-HEIs were similarly distributed.

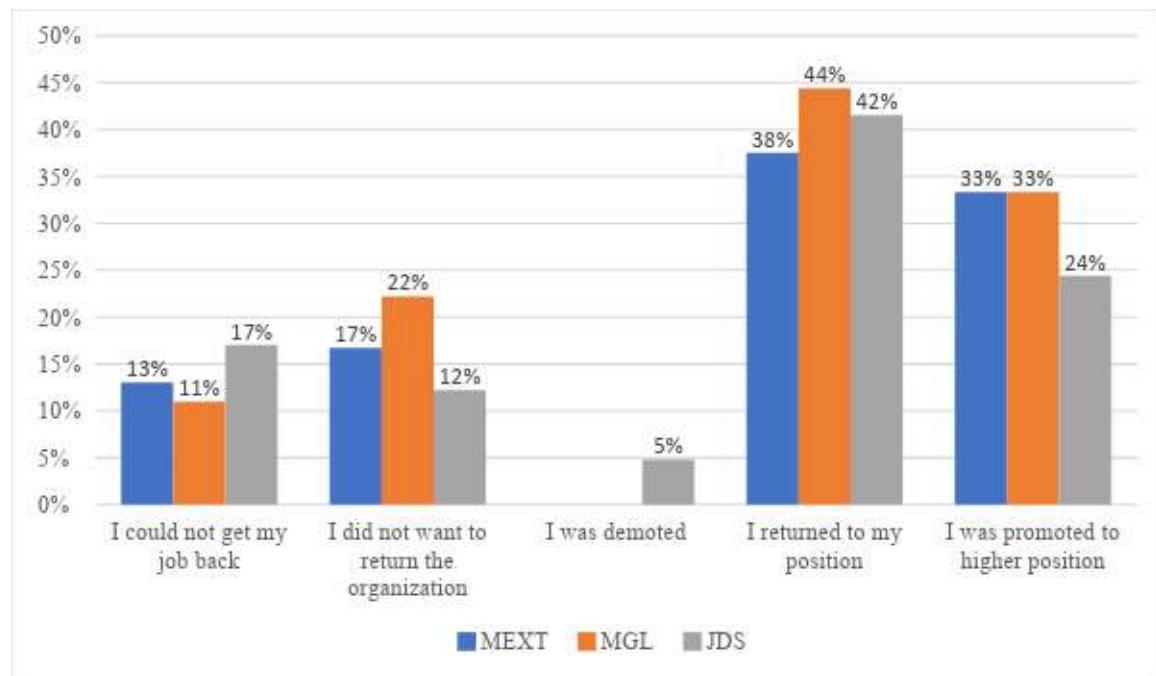


Figure 6-1 *Alumni's return to job compared by scholarship programs*

Table 6-15 presents that 29% worked in higher education institutions followed by 25.3% in the public sector, private sector (23.2%), and researcher in non-higher education institutions (12.1%). An open space to write the workplace name shows that the higher education institutions and non-HEI are mostly public organization usually national universities and national research institutes.

Table 6-15 Frequency of Respondents' Current Job

Current job	Number	Percentage
Researcher in non-HEI	12	12.1%
Faculty in HEI	29	29.3%
Public sector	25	25.3%
Private sector	23	23.2%
International organization, NGO	10	10.1%

Figure 6-2 shows the frequency of job distribution by scholarship programs. MEXT alumni were predominantly in the private sector (42.9%) followed by faculty positions in higher education institutions (34.3%). However, MEXT respondents had a relatively lower proportion of graduates in the public sector (8.6%) but almost half of them were working private sector (43%). On the other hand, MGL alumni were predominantly working in academia (60.8%), and public sector (26.1%) many of whom were researchers in non-HEIs (30.4%). JDS alumni had the highest number of respondents in the public sector (39%) followed by faculty in HEI (24.4%), and international or non-governmental organizations (17.1%). Although JDS scholarship targets professionals in the public sector including faculty members, 12.2% were working in the private sector. Similarly, although MGL scholarship requires alumni to work for public sector upon return, 13% were working in the private sector.

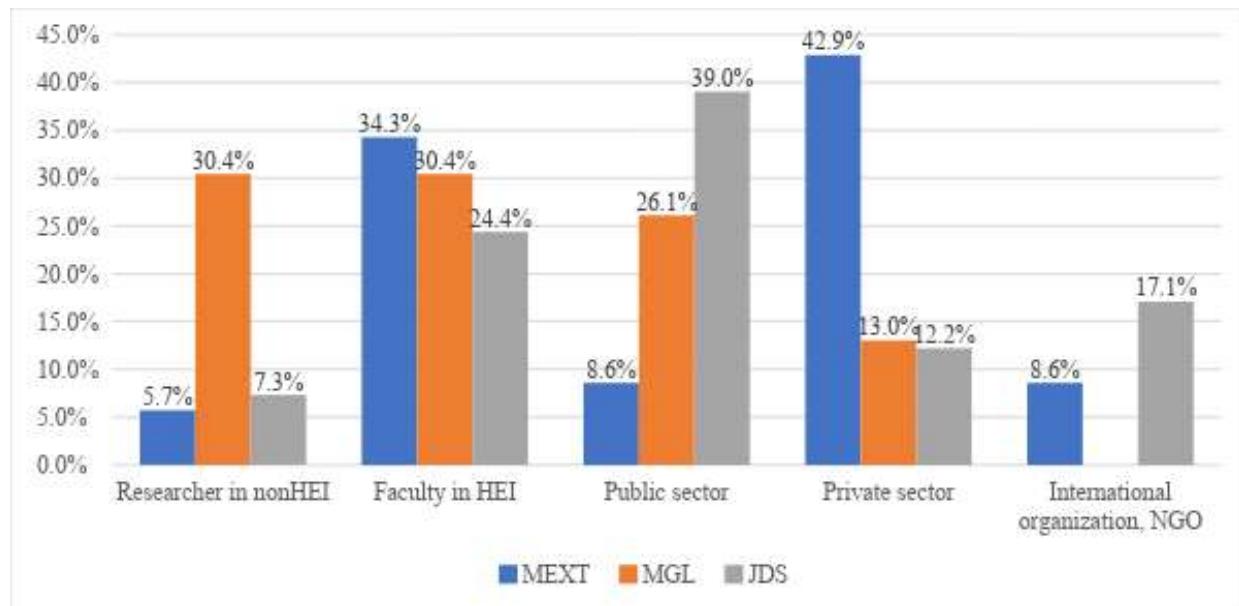


Figure 6-2 *Current employment by scholarship programs*

For the chi-square test, researchers and faculty were combined under the category, ‘academia’. The test found a statistically significant relationship between alumni’s current job and their scholarship programs ($p=0.000$, Cramer’s $V=.385$). This difference can be due to the scholarship program requirements. While MGL and JDS scholarship programs require alumni to work in the public sector, MEXT does not have any restrictions on their jobs. Thus, a higher number of JDS and MGL alumni were working in the public sector while a higher percentage of MEXT alumni were working in the private sector.

Follow-up interview findings on a post-program career path

The follow-up interviewees were satisfied with their current jobs even if they did not return to their previous workplaces. Erdene changed his job within the public sector while Az changed her job from the private sector to international organization. For Erdene, he is working in a sector that is more closely related to his study.

I didn’t want to return. My bachelor’s degree was in the very different field and now that I studied something else, I wanted to work in this field. I worked for JICA project for one year and I’ve been working here for 5 years now. (Erdene, MGL alumnus)

The reason he did not want to go back to his previous workplace was that he could not use his knowledge directly. Thus, while searching for new jobs he worked for the international organization. This worked well for him because he is now in a leadership position in a government agency in a newly developing sector.

Az also did not want to go back to her workplace.

I had resigned from the A bank and had just taken a job at another B bank. It was only one day after working in the B bank when I got accepted to study in Japan. So, I left the job and I didn't have any job for 2 months before I went to Japan. During that time, I found a translator's job for "A" international organization. When I came back, I spent 7 months searching full-time jobs until I found this job. In the meantime, I was doing various part-time jobs though. (Az, JDS alumna)

When Az was going to study in Japan, the JDS program allowed participants from the private sector. It was still the early period of the scholarship program development; thus, Az was neither required to work for the same organization nor enter the public sector. When asked if her degree in Japan helped her get the job at this international organization, she did not think so. She was working there right before she left and they did not require any masters' degree. However, she viewed that her organizational skills have been helpful for her job.

Sara, another JDS alumna, changed her job from the public sector to the international sector. Although she wanted to go back to the government agency, her job position was dissolved and she could not return to the same agency. Instead, she joined an international organization and has been working in a leadership position since then. She thinks her soft skills helped her most. She said,

If I hadn't studied in Japan, I don't think I would be employed in this organization. I think the skills I developed in Japan helped me gain the company's trust to represent them here. For example, being diplomatic and respectful, and ethical. I compare myself with representatives from other countries and I feel that I am most ethical and respectful to others. Another quality is being independent directing my work on my own without causing troubles. (Sara, JDS alumna)

All follow up interviewees viewed their experience in Japan positively either from personal development or career perspectives. Their career path was not easy to decide or smooth. Many interrelated contextual factors shaped their choices to change their workplace, stay or join another sector. All of them wanted to apply their knowledge and experience; however, returning to the same organization did not necessarily allowed this.

Benefits of Study in Japan

Figure 6-3 shows that most alumni across programs agreed that their international experience was useful to their job (89%), that they used their knowledge in Mongolia (83.2%), and utilized their knowledge to further their research (74.3%). Around half of the survey respondents indicated that they established useful personal connections (56.4%) and remained in contact with their professors (58.4%). Fewer alumni agreed that their experience helped them get a well-paid job (41.6%) or set up business (25.5%). 45.6% of alumni were

able to use their Japanese language skills beyond their graduation. In addition, the majority of alumni agreed that their experience in Japan motivated them to contribute to socio-economic development of Mongolia (81.2%) and to make changes in their community (72.3%).

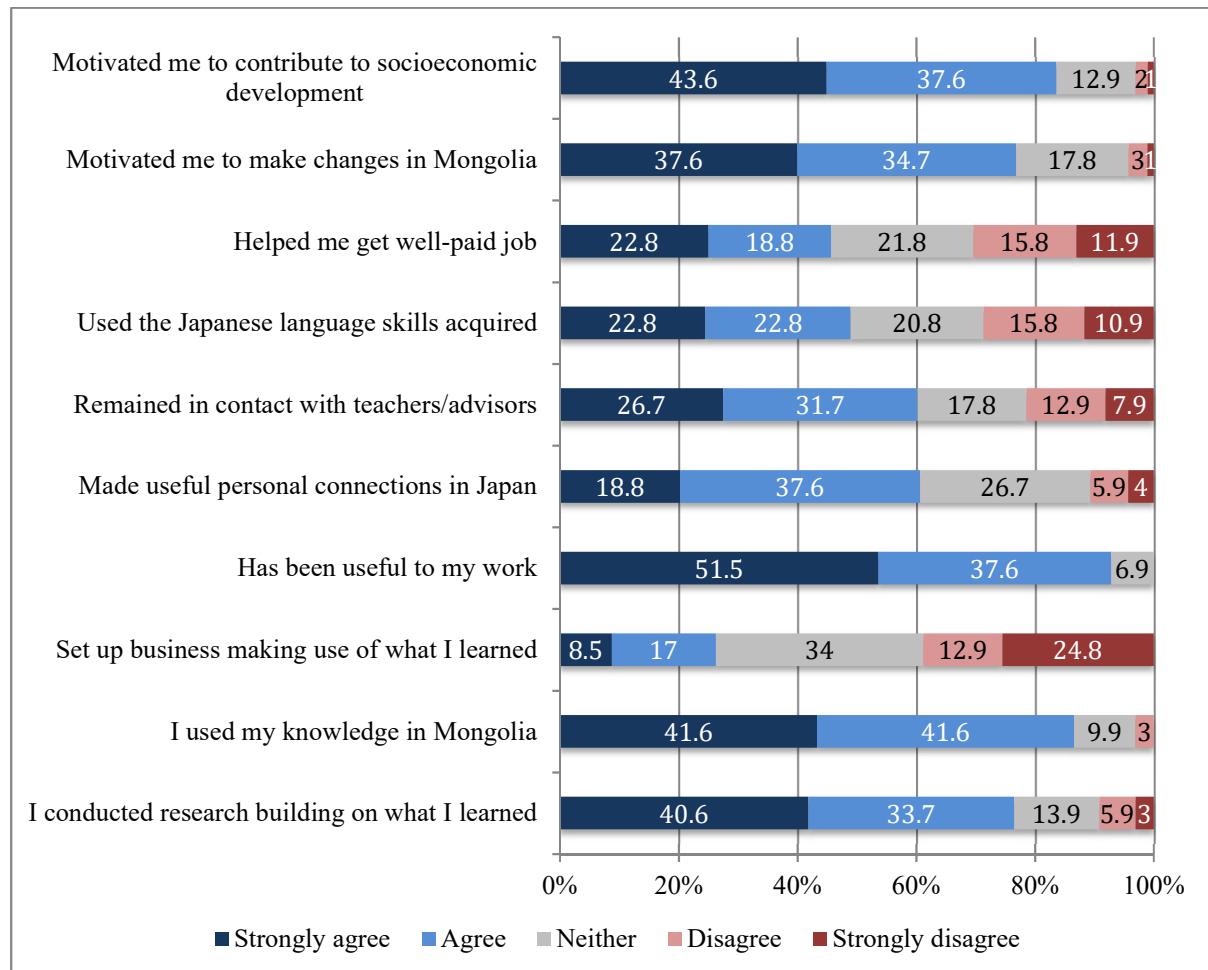


Figure 6-3 *Perceived usefulness of studying in Japan*

Figure 6-4 compares affirmative answers to each of the statements by respondents' scholarship programs. Alumni's answers were very similar across their scholarship programs except for two statements: 'I set up a business making use of what I learned' and 'used the Japanese language skills acquired'. While 35% of MEXT alumni and 30% of MGL agreed that they set up a business using their study in Japan, it was 10% for JDS alumni.

On the other hand, 70% of MGL agreed that they used the Japanese skills they acquired only 20% of JDS alumni thought so. Although the small sample size could have influenced the dramatic contrast in language usage, programming difference that requires JDS students to study in English plays a factor.

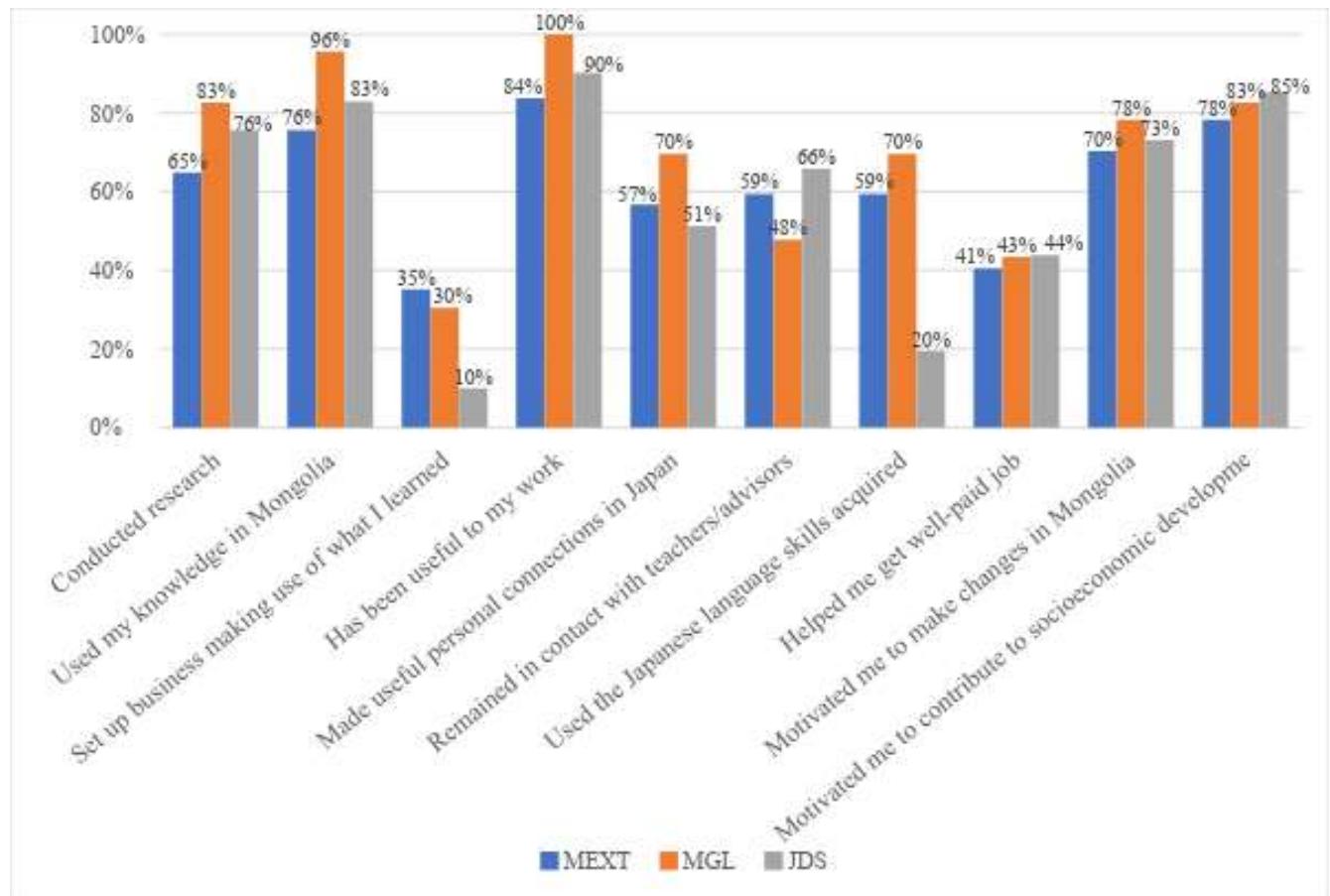


Figure 6-4 Percentage of Alumni Agreed to the Statements Compared by Scholarship Programs

The chi-square test by scholarship programs and agreement/disagreement to these statements showed the statistically significant relationship in alumni's responses to the above-mentioned areas as well (see table 6-16).

Table 6-16 Chi-square test between perceived benefits and types of scholarship programs

	χ^2	Sig	Cramer's V
Set up a business making use of what I learned	7.223	0.027	0.341
Used the Japanese language skills acquired	19.892	0	0.46
Has been useful to my work	2.060	0.725	
Made useful personal connections in Japan	2.884	0.236	
Remained in contact with professors	2.283	0.319	
Helped me to get well paid-job	0.021	0.990	
Motivated me to make changes in Mongolia	0.038	0.981	
Motivated me to contribute to socioeconomic development	.411	0.814	

Post-program relationship with Japan

Table 6-17 presents alumni's relationship with Japan after program completion. The majority of respondents encouraged others to study in Japan promoting the multiplier effect (MEXT, 2011). One-third of respondents collaborated with Japanese researchers and one fifth received researchers and students from Japan in Mongolia.

Table 6-17 *Frequency of Post-program Activities*

Post-program activities	number
Encouraged others to study in Japan	61
Made presentations about experience in Japan	40
Participated in activities related to Japanese culture	33
Collaborated with Japanese researchers	31
Worked at an international level	31
Work related to Japan	27
Employed in a government in Mongolia	27
Received researchers and students from Japan	20
Continued to study Japanese	19
Worked in the Japanese organization	11
Carried out research relating to Japan	9
Have not taken part in any such activities	4
Total	101

Figure 6-5 compares alumni's post-scholarship relationship to Japan by their scholarship programs. While the majority of JDS alumni had encouraged others to study in Japan, only half of MGL and MEXT respondents did so. Moreover, while 42% of MEXT alumni collaborated with Japanese researchers, only 26% of MGL and 24% of JDS scholarship alumni made collaborations with Japanese researchers. Around 22% of MEXT scholarship alumni received visiting researchers and students from Japan, while the percentage was slightly higher for MGL (30%) and lower for JDS alumni (12%). Similarly, while 19% of MEXT alumni conducted research related to Japan, around 9% of MGL and none of JDS alumni did so.

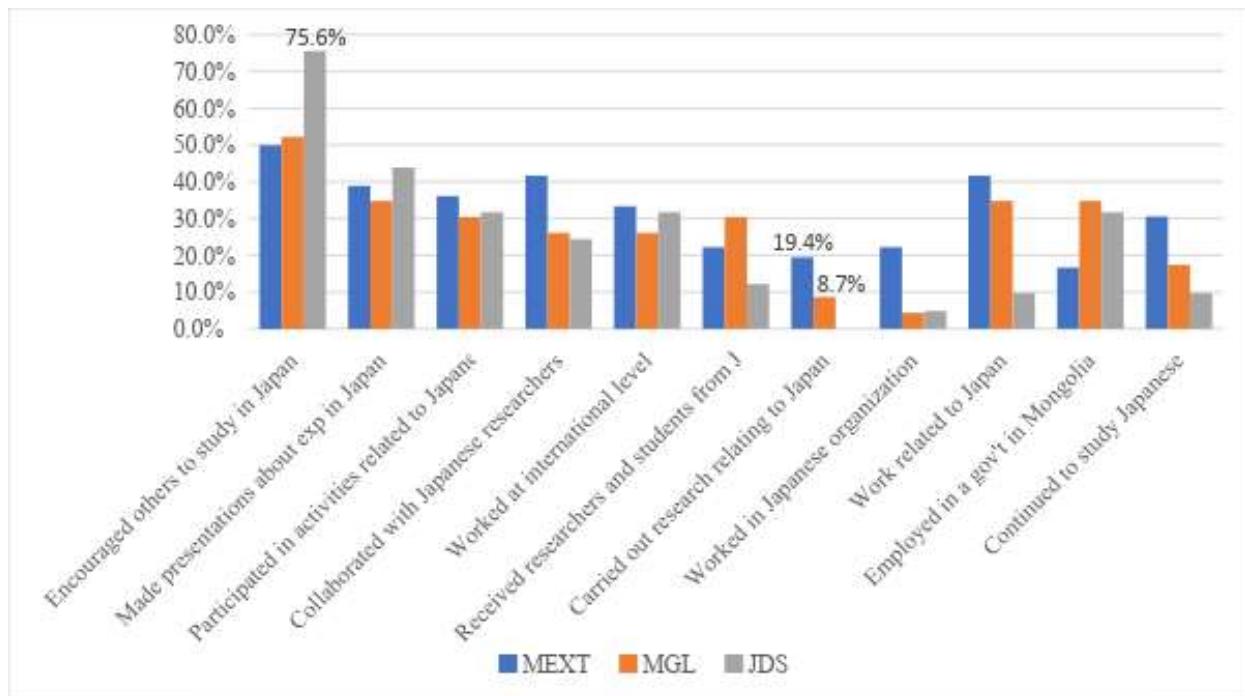


Figure 6-5 Post-program relationship with Japan (comparison by scholarship programs)

A chi-square test checked whether academic degree and research activities had a statistically significant relationship. Table 6-18 shows that alumni's post-program research experience connected to Japan had a high influence from their academic degrees. Ph.D. graduates had a higher proportion of alumni collaborating with Japanese researchers across all scholarship programs.

Table 6-18 Areas with a statistically significant relationship with 'academic degrees'

	χ^2	Sig	Cramer's V
Collaborated with Japanese researchers	7.756	0.005	.277
Received researchers and students from Japan	4.249	0.039	.205
Carried out research relating to Japan	5.962	0.015	.282

Another difference was that a higher percentage of MEXT scholarship alumni worked for Japanese organizations or their work was related to Japan while a higher percentage of MGL and JDS graduates worked for the Mongolian government. This is connected to scholarship program conditions that require MGL and JDS alumni to work for government organizations. As most Japanese organizations are in the private sector, mostly MEXT alumni could work there with flexible scholarship conditions.

6.5. Perceived Contribution to the Home Country

The majority of respondents (94.1%) indicated that alumni should contribute to the home country development as scholarship program grantees. As for areas of their own perceived contribution, alumni indicated that they influence the social morality and ethics (63%) more often than other areas such as decreasing crimes (5%). About half of the respondents thought that they contribute to economic development (48%) and the improvement of educational quality and service (49%). 40% of alumni viewed their contributions to the home country as introducing and bringing new technologies.

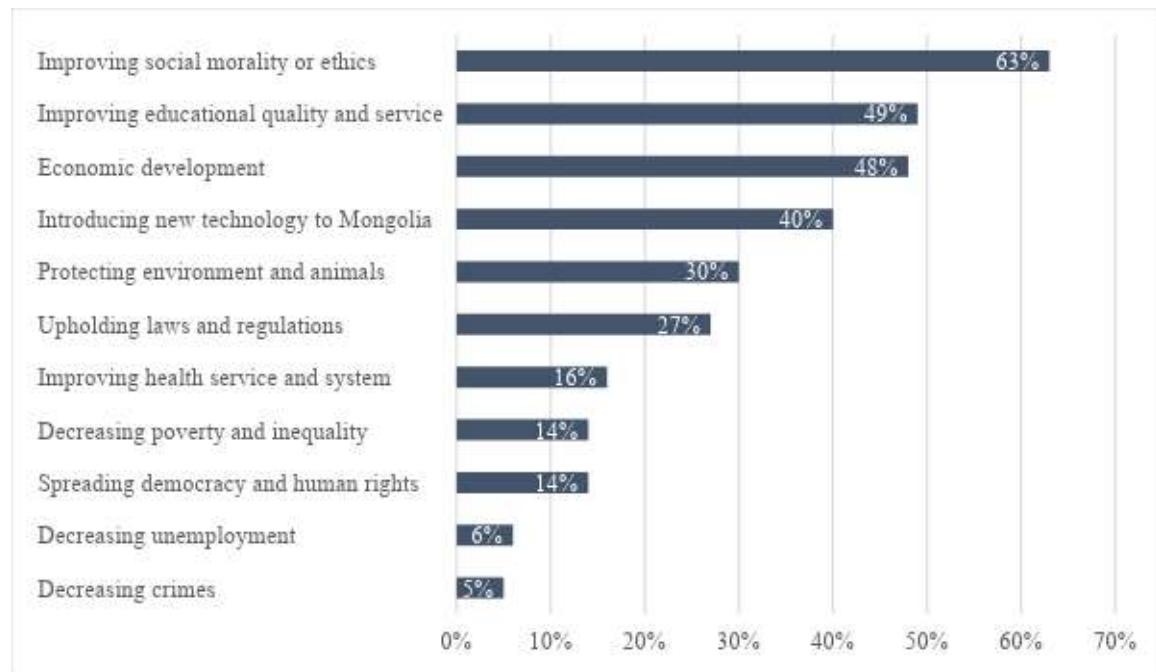


Figure 6-6 *Perceived Areas of Contribution*

The chi-square test of perceived areas of contribution by the fields of studies found statistical relationships in “health service” (*Cramer’s V*=.8, *p*=.000); “protecting the environment” (*Cramer’s V*=.5, *p*=.000) and “introducing technology” (*Cramer’s V*=.395, *p*=.017). Those who studied in health-related areas were more likely to indicate that they contribute to the health system development (92%), or those who studied natural science often (76%) indicated “protecting environment and animals”. However, regardless of area of study, alumni indicated that they contribute to the social morality and educational system. This could be due to the fact that many respondents (41%) were researchers and faculty in academia.

Areas such as ‘Decreasing poverty and inequality’, ‘Spreading democracy and human rights’, ‘Decreasing unemployment’, and ‘Decreasing crimes’ had a low frequency across all scholarship programs, fields of studies, or academic degrees. Due to the small number, the chi-square test was not conducted on these areas.

As for ways of contribution, 83% of respondents indicated they contribute to their community and home country development through their jobs, and 60% indicated they act as role-models in raising others’ ethics and morality (Figure 6-7). Other channels such as participating in community service works (27%), volunteering (21%), private business (15%), or teaching (12%) and research (27%) outside the main jobs were significantly less than the perceived contribution through the job.

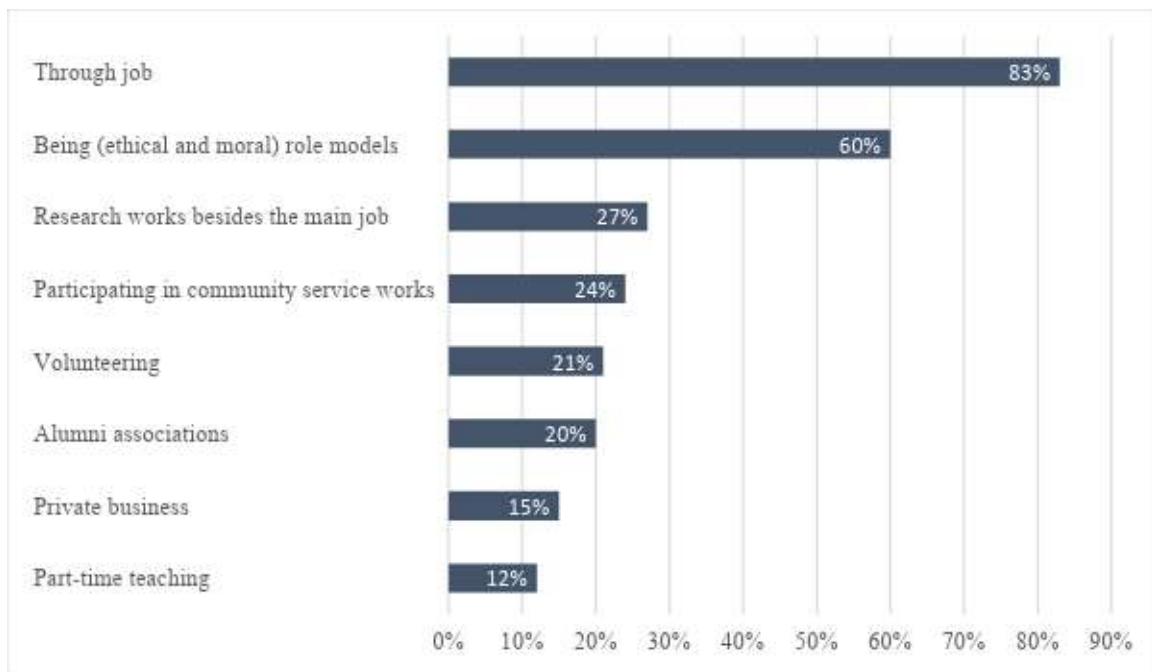


Figure 6-7 *Ways of perceived contribution to the home country development*

The chi-square test compared the frequency of perceived ways of contribution by gender, scholarship programs, and age ranges. A statistically significant relationship was found in “volunteering” (*Cramer’s V*=.26, *p*=.034) and “private business” (*Cramer’s V*=.35, *p*=.002) by scholarship programs. MEXT alumni volunteered more (35%) than the JDS (12%) or MGL alumni (17%).

In addition, a weak association was found in “part-time projects and research” between male and female alumni (*Cramer’s V*=.198, *p*=.034). Female alumni (34%) indicated more often that they contribute to society through part-time research works or

projects than men (16%). On the other hand, none of JDS alumni said that they contribute by business while 28% of MEXT and 22% of MGL scholarship alumni indicated that “give back” through conducting a private business. Although the demographic information shows that 13% of JDS alumni work in the private sector, all of them could be working for private organizations instead of running their own business.

Follow up interview results on contribution to the home country

Most follow up interviewees also believed that scholarship alumni have responsibilities to give back to their home country. Dondog, however, did not think he bears any responsibility to give back. He said,

I do not think we have a responsibility give back to Mongolia. I pursued a degree abroad to advance my skills and knowledge with my own hard work. I want to do something to improve my sector here but I don't think I have the responsibility to do so. (Dondog, MEXT alumnus)

On the other hand, Aldar, an MGL alumnus said that he had a responsibility to give back.

I felt very responsible to go back and work in Mongolia. I didn't plan to stay in Japan after my program. I had a goal to learn something, develop networks, advance my research skills and come back. Plus, I had a collateral so I had to release it by coming and working here. But even if there wasn't any collateral, I still would go back because my goal was to study something related to Mongolia and develop the sector in Mongolia. Also, I felt more responsible because they supported and trusted me. (Aldar, MGL alumnus)

Aldar felt proud for the fact that Mongolian government was supporting him. It encouraged him to be responsible for his study and apply his education after returning to Mongolia. He said,

Although the Mongolian government scholarship is called as a loan-scholarship, I felt very proud when I said that my government is paying for me. Although Mongolia is a poor country, it also has some plans and policies to support their citizens. This thought made me content and gave me hope. (Aldar, MGL alumnus)

Although both alumni returned to Mongolia, Aldar felt more responsible to go back and work in Mongolia because of the scholarship condition but also because it was his goal to return. In other words, the program had selected someone with motivation to return. On the other hand, Dondog did not feel responsible to return to Mongolia or ‘give back’ because the scholarship program was not clear if it expected the graduates to return to Mongolia and apply their knowledge or not. He said that during the interview with scholarship selection committee they asked how he would apply his knowledge in Mongolia. However, there was no other

messages or expectations that encouraged MEXT alumni to return to home country and contribute to the home country development.

Alumni also elaborated on their responses to areas of contribution. Alumni across different jobs and areas of studies indicated that they contribute to the development of the education sector and to social ethics and morality. When asked to give examples to what she meant by these two, Sara said,

Our organization gives many workshops for medical doctors. We also sponsor doctors to participate in training abroad. Our head organization is capable of such support and I try to let our doctors benefit as much as possible. We also sponsor many academic conferences organized in Mongolia. So, I think we contribute to professional development, increasing education and knowledge of doctors. In developed countries such as Japan, medical associations play an important role to increase doctors' levels and ranks. It's not like that in Mongolia. The associations do not have any fundings and they fundraise and look for sponsors. So, it's [financially supporting] an important cause to support and I think we are contributing to the development.

As for ethics and morality, I thought of my attempts to raise ethics among doctors. The pharmaceutics was privatized before the hospitals. The doctors have a very low salary while the pharmaceutic companies have high profits. Around 200 pharmaceutic companies operate here and very few of them are ethical. Many pharmaceutic companies give doctors "supplies" or even money and doctors prescribe their medicines. The doctors have an ethical dilemma but they have such a low salary of 300 USD per month which they receive in two installments. One big full bag of groceries cost around 50USD. So, doctors are very pitiful. They have their own families, two three children, maybe old parents. I can't blame the doctors for hundred percent. So, we try to help the doctors receive necessary training and workshops with full funding. (Sara, JDS alumna)

Although she worked in the health sector, she indicated in the questionnaire that she contributes not only to the health sector but also to education and social ethics. Her work has multiple angles and complex impacts which make it difficult to attribute to only one sector.

Erdene, the MGL alumna, also indicated in the survey that he contributes to the education sector besides his own work sector. Although his work is in the construction sector he has an experience of sharing his knowledge about the Japanese education system. He gave talks to students at a local training center.

My friend invited me to share my experience. It happened while I was searching for a full-time job. I taught English and Japanese language but also, I gave talks about studying in Japan. The agencies that send students often say that students do not need any Japanese language skills because they would learn the language once they are in Japan. However, from my experience, language was very important. I've seen many Mongolians with little English and Japanese. They at least need good English if they want to study. (Erdene, MGL alumnus)

His attempts to share his experience was not only one time—he volunteered for 3 months sharing his knowledge of Japan, admissions procedures, teaching languages at this center.

Most interviews said that they make contributions through their work. Some also indicated volunteering, participating in projects, bringing technology and equipment, or teaching for part-time. Dondog was able to bring medical equipment through side projects.

I wrote projects to bring medical equipment to diagnose... Mongolia is the second top country with a number of people with high blood pressure. I participated in establishing this project which would last for three years by supplying statistical information, raising awareness. (Dondog, MEXT alumnus)

Writing projects through local NGO, they were able to bring important medical equipment to distribute to medical centers for free. Dondog connected his action with his experience in Japan—the level of health service in Japan.

However, alumni's community service works did not always have a direct causal relationship to their education in Japan. Az had indicated that she gives back through community service works and making donations. However, when asked if her motivation to help has any relationship with her education in Japan, she said,

Although I take part in community service works, it is not necessarily because I studied in Japan. Even before studying in Japan, when I was working in a bank, I went to one orphanage center together with one foreigner. I felt very bad for those kids, their condition was very difficult and I thought I should help whenever I had a chance. These days, I give donations to certain community service works. (Az, JDS alumna)

By only asking whether they are involved in the community or take actions for their community does not necessarily show effects of scholarship programs. The scholarship programs could choose participants who are more likely to take actions—thus, they already had motivations to do something for the home country even if they did not study abroad. Rather, studying abroad provides the tools—networks and skills that help their motivations realize.

6.6. Challenges and Necessary Support to Increase Individual and Social Effect

More than half of the respondents (57.5%) agreed that there was a lack of environment to apply their knowledge and experience, especially at decision-making level (64.4%), and that there is a lack of government policy to effectively utilize alumni. Comparison by scholarship programs, areas of study, gender or age through chi-square test did not find any statistical difference. However, there was a difference in types of jobs.

Majority of faculty and researchers in HEIs (58.6%), international organizations (57.2%), and NGOs (100%) did not agree that they had little opportunity to share their knowledge (lack of environment to implement my knowledge) or that they lacked professional work opportunity. On the other hand, most of those who worked in the public sector agreed with this statement (75% of researchers working in non-HEI and 64% of civil servants).

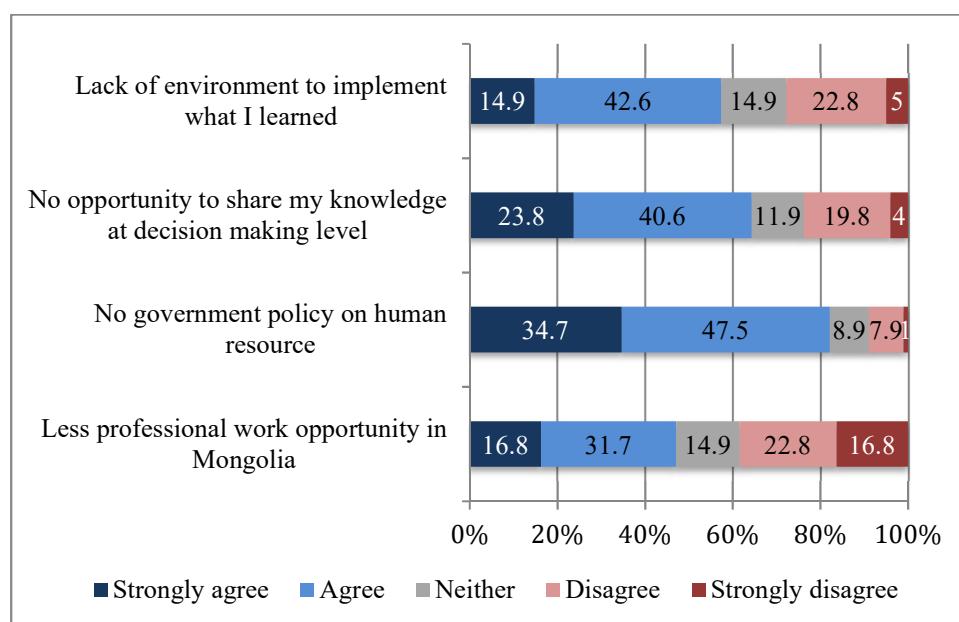


Figure 6-8 *Challenges to 'give back' to Mongolia*

The chi-square test found a statistically significant relationship between scholarship programs and the responses to "No opportunity to share my knowledge and experience at decision-making level" ($p=0.01$, Cramer's $V=.29$). While 48% of MEXT alumni said that there is a lack of opportunity to share their knowledge at decision-making level, 61% of MGL and 81% of JDS alumni said so. Although the chi-square test did not find a statistical difference by the current jobs, those in private sector (70%), public sector (68%), HEIs (66%) agreed more to this statement than researchers (50%) at non-HEIs who can be rather independent in their jobs to conduct research works. The follow-up interviews showed that the interviewees could share their learning experience—through presentations, talks or informal communications. However, it was difficult to actually influence their directors, governing bodies and other decision-making units to apply their ideas.

Necessary supports to mitigate the challenges

Alumni agreed to all four possible ways of support to effectively utilize the scholarship programs for the home country development (Figure 6-9).

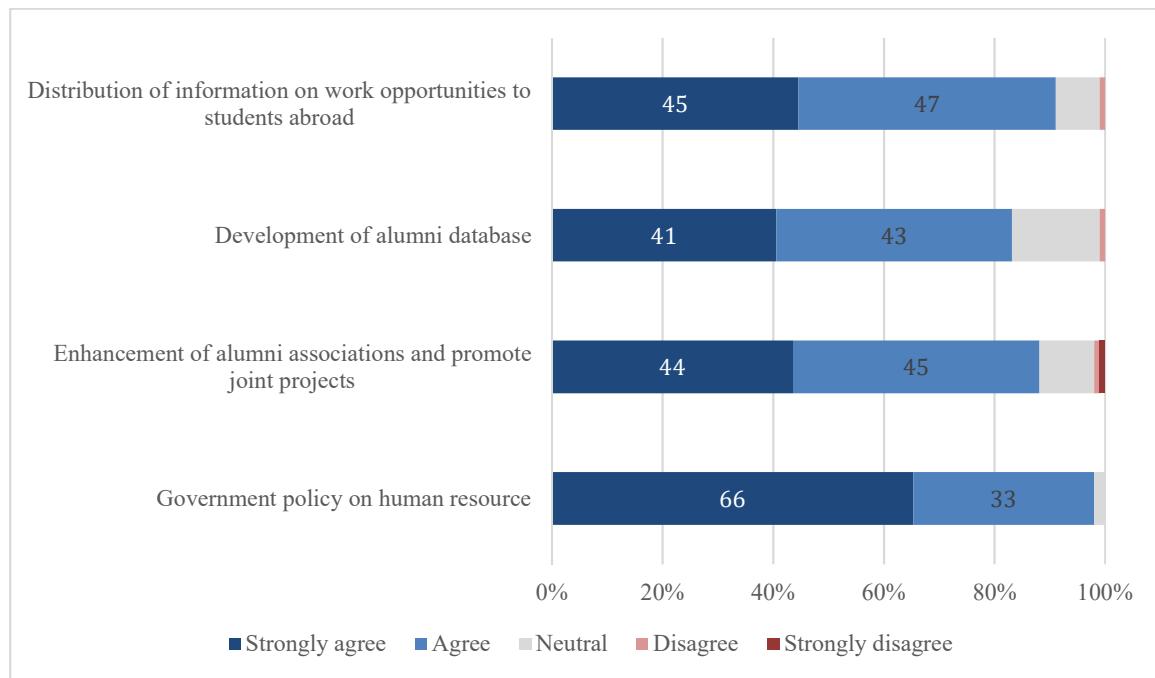


Figure 6-9 *Support for alumni to effectively utilize alumni*

Almost all agreed that there should be a government level human resource policy to effectively utilize graduates for the home country development. This finding was supported both by the phenomenological study and the follow-up interviews. This included policy mechanisms to help alumni get relevant jobs even if it was not in their previous organizations, better communication or shared understanding between employers, scholarship administrators, and policy developers, and other incentives for alumni to stay in public sector. Around 90% of respondents agreed that there should be more distribution of information on work opportunities in Mongolia.

Eighty-four percentages of MEXT and over 90% of JDS and MGL program alumni agreed that enhancement of alumni associations and promotion can be possible support to facilitate and promote scholarship programs' positive impact to the home country. When asked if the respondents are members of any alumni associations, 80% of JDS alumni, 65% of MEXT alumni, and only 39% of MGL alumni said 'yes'.

Most alumni filled in the open-space question about their ideas for alumni association that ranged from initiatives for joint projects, enhancement of networks both vertically (among same year graduates from different programs or universities) and horizontally (across different cohorts), and other collaborative activities for positive social change (table 6-19).

Table 6-19 *Ideas for Alumni Association (summary of responses to open-ended question)*

Enhance the networking opportunity among all alumni to exchange ideas, support each other's work, business, and collaborate on common ideas.
Increase information sharing, create various sub-groups by professional areas.
Unite our wills and voices to bring positive changes to our community, especially to keep the politics clean and ethical.
Connect the graduates, supply with information, and provide conditions for collaboration
Reach policy and decision-making level
Organize activities to raise social awareness about ethics and morality
Influence in policymaking through collaborations both within and across professional sectors, draft development vision for each sector.
Fund alumni projects through alumni fees or through other funding sources to support alumni's contribution to the home country .
Quality projects, for example, create centers to give medical advice to patients with chronic diseases
Organize events that introduce graduates' business works, provide opportunities to collaborate
Involve alumni in rural areas
Professional development activities for alumni
Informal and friendly activities that can create a warm atmosphere among alumni
Promote Japanese culture, especially work culture

The follow-up interview suggested that they did not find the existing system of alumni association very effective to contribute to the society because there was not much networking opportunity that enables collaboration and joint projects.

There was a statistically significant relationship in "Development of alumni database" and the scholarship programs ($p=0.04$). While almost all MGL alumni (96%) said that they support this idea, slightly less percentage of MEXT alumni (70%) and JDS (88%) supported this idea. 65% of MEXT and 81% of JDS respondents said that they are a member in at least one alumni association. However, only 39% of MGL alumni said they have alumni association membership. Among the three programs, only the JDS program has its own (exclusive to the program) alumni group. All other alumni are free to join the JUGAMO association that welcomes anyone who graduated from Japan or sometimes, host university alumni groups. Although not every university has alumni groups in Mongolia, big national universities often had an informal group among the alumni.

Follow-up interview on challenges. Alumni were equally divided in their opinions about professional work opportunity in Mongolia. A follow-up interviewee, Uyanga, talked about her feeling towards highly educated graduates not finding any jobs in their professional

areas. She said, “Sometimes what they learned in Japan did not match with their home country context”. Interviewees talked about the need to learn the entire system in Mongolia. If someone is a researcher in biology, that person also needs to know the academy, the policies that affect their work, the laws and regulations, education system and so on. Studying abroad and gaining knowledge alone does not make graduates qualified to work for leadership positions without such contextual knowledge of their home country.

Follow-up interviewees also commented on the challenges to apply their knowledge. Erdene said that Mongolians have much opportunity to apply their knowledge because it is a developing country.

Actually, we have much work to do here [in Mongolia]. We have to build the roads, create more schools, improve the hospitals, and make changes to the policies. We have so much to do here than we would be able to do in Japan or elsewhere. That's why I disagreed that we lack an opportunity to apply our knowledge. (Erdene, MGL alumnus)

However, he agreed that there is little chance to influence the decision-making process, especially in the government. He said,

Influencing the decision-making process is a difficult process. It's not something that one person can achieve. Maybe a group of people could influence. We need to collaborate with others and if we together aim to influence the government decision, we might achieve. (Erdene, MGL alumnus)

He talked of critical mass in public as well as private sector with similar motivation and skills to collaborate with each other and aim for the common good. He mentioned the need to bring together alumni and allow them to work together on shared ideas.

Other alumni commented on the lack of policies to efficiently distribute alumni to workplaces. Although highly qualified, it was difficult to find jobs. Dondog said,

One of the reasons I returned was I wanted to work in a hospital here. I gave my resumes to a couple of hospitals [national]. Few of them did not know how to proceed and took a few months to even respond. I didn't want to work for a government agency or anything. I love being a doctor. (Dondog, MEXT alumnus)

He used to work in the public health administration sector and upon his return, he changed his job to a hospital. He viewed that he could apply his knowledge more efficiently in a hospital. However, it was challenging to get a job in a hospital upon his arrival. Another MEXT graduate, Uyanga, returned to her job in academia but it took a few months to proceed her request to return due to internal regulations. Although she had taken a leave from her work to study, she still had to go through a series of departmental and institutional meetings and present the results of her research.

The JDS and MGL scholarship programs require alumni to return to their previous workplaces. However, for Sara, it was difficult to return to the government agency because the organization was restructured under a new government and her position was gone.

I was confident to take part in A center development when I came back...I had stayed in touch with my director, connected them with Japanese researchers, studied about Japanese gerontology system so that I could apply it in my work in Mongolia...but there was no vacancy under the new government reform. The new director wanted to have me back but he had to fire another person to take me back. (Sara, JDS alumna).

Another challenge was the low pay and the bureaucracy in the public sector. Uyanga said, “One of the reasons why so many talented Mongolian graduates want to stay abroad after graduating prestigious universities is that they face huge bureaucracy and low pay when they want to work in Mongolia”.

Although Sara could not return to the public sector, she viewed that her current job in international organization provided a better environment and opportunity to act on her agency. She said, “I don’t think I would have been so efficient if I worked for the agency. I would have just rusted there. But here [in this international organization], I am able to influence more and support the doctors”.

Conclusion

The quantitative survey found four main findings. First of all, alumni developed transformative learning experience in Japan regardless of their scholarship programs. About half of questionnaire respondents (53%) indicated to have perspective transformation (Quadrant IV: Action or Behavior Change). The chi-square test could not find any statistical relationship between the transformative learning level and their scholarship programs. A higher percentage of JDS alumni (61%) showed transformative learning compared to the other two programs (49% of MEXT alumni; 43% of MGL alumni had perspective transformation).

Secondly, living experience in Japan, supervisors, research work process and work experiences are the main factors that promoted perspective transformation. Alumni associated their transformative learning mostly to interaction with Japanese local community (67.9%), supervisor’s challenge (58.5%), and research work process (56.6%). However, chi-square test showed that classroom and seminar discussions, critical thinking, class projects, and other assignments had a high statistical relationship with perspective transformation. As for work experience, 65.2% of MGL alumni, 37.8% of MEXT alumni

and 2.4% of JDS alumni indicated work experience as an important learning activity that fostered their perspective transformation. Although JDS program does not allow their grantees to work, more exposure to internship could be beneficial for the more transformative learning experience.

Third, alumni contribute to Mongolia through the job, part-time teaching and research work as well as volunteering and community service works. 83% of questionnaire respondents said that they contribute to the home country through their job. Most alumni said that they contribute to their sectors. However, regardless of their work areas, alumni said that they play an important role in social ethics and morality. 60% of alumni viewed themselves as contributing to the community by being role models. Follow up interviewees said that they act as role models in their attitudes such as 'not bothering others', 'thinking of others or respecting others' and 'being more professional'. Other more active examples included alumni-initiated projects to promote doctors' ethics. Only 27% of alumni said they contribute to the home country by carrying out project works and 12% teach part-time besides their full-time jobs.

Regardless of scholarship programs, alumni experienced challenges to return to their jobs. One-third of respondents could not return to their workplaces either because they did not want to or the workplace could not hire them back. On the other hand, 41% returned to the same job positions and another 29% were promoted to a higher position over the time. The follow-up interview with alumni who could not return to their jobs presented reasons such as workplace reform that resulted in the removal of their positions, or lack of vacancies at the workplace. Although most could return to their previous jobs, it was important for them to have a choice to choose their workplace. Interviewees changed their jobs within the public sector as well as from the public sector to academia, international organizations, and even private sector.

Chapter Seven. Discussions and Conclusions

This chapter reflects on findings from all three phases of the study and highlights salient areas with regards to the overarching research focus and in relation to previous research. Situated in the intersection of higher education, international development, and public policy, the international higher education scholarship programs are believed to be an important tool of national development for low- and middle-income countries. However, despite the growth of empirical studies on scholarship programs, little remains known about learning experience of scholarship students in Japan, the contextual factors that enable or hinder alumni's ability to participate in the national development in Mongolia, and how scholarship program conditions shape alumni's trajectories and their sense of "giving back" to the home country. Thus, this study aimed to understand, 1) how Mongolian alumni make meaning of their learning experiences in Japan (at graduate schools), 2) how they perceived their contribution to the Mongolian national development, and 3) what challenges and supports alumni faced that are both similar and distinctive by their scholarship programs.

After discussing the salient findings in light of previous literature, this chapter then offers practical implications international higher education scholarship program administrators, funders, Mongolian public policymakers, as well as host universities. Then, the theoretical and conceptual contribution is present highlighting areas in which the findings from this study elaborated the original conceptual framework. The chapter ends with possible areas for future research.

7.1. Perspective Transformation and Learning Activities (factors)

More than half of participants in both phenomenological and questionnaire studies had a perspective transformation during their international education experience in Japan. Contacts with unexpected, unfamiliar, and challenging experience as well as their own curiosities triggered students to have a personal reflection regarding their assumptions of self and others. Daloz (2000) argued that the personal reflection and mentoring-community form and reform learners' understanding of the world and their position in it. The overall result from this study supported this position. Alumni shared the "triggers" that made them reflect on their previous assumptions; this reflection coupled with the support from peer and upper-class students, professors, other Mongolians, and family members helped the scholarship

students achieve perspective transformation. This study elaborated these triggers that made alumni reflect on their previously held beliefs.

Entry-ways (triggers) for reflections

The triggers that made alumni reflect on their beliefs, values, attitudes, and assumptions varied and it is difficult for the alumni to clearly distinguish one over another especially after a long time. However, overall they were divided into three ways—those mostly led by their own curiosity and observations; those experienced dilemmas that made them realize that their previously held beliefs, attitudes did not match their new situation; and those who tentatively tried others' approaches to fit in. Applying Charaniya's (2012) classification of transformative learning entry-ways in spiritual and cultural contexts, these alumni's experiences were labeled as *diving in*, *pushed into*, and *testing the waters*. Charaniya (2012) characterized *divers* to have previous experiences that made them curious, to explore, and make meaning of their previous experiences. The pushed ins face other beliefs that are contrary to their own.

Very few alumni in this study had *diving-in* experience. The international higher education scholarship program discourse and the normative logic often assumes that most scholarship students would dive-in utilizing the opportunities offered from their host institutions and their surroundings for intercultural, leadership, and enrichment activities. However, this study showed that only a few students actively searched for meaningful experiences and reflected on their observations. These alumni did not face disorienting challenges or dilemmas that shook their previous ways of making decisions. Rather, these students actively made observations and reflected on their own values and values in Japanese society. This change was more similar to what Dirkx et al. (2006) discussed emotional and affective reactions that serve as catalysts for change and development of intercultural competence. These alumni-related their perspective transformation with their observation and interaction in Japanese society. Particularly, their exposure to community and ordinary Japanese people were important, often through children's schooling, field works, part-time works, and volunteering. Similarly, the survey analysis found that 68% of alumni with perspective transformation viewed their interaction with the community helped them to transform their perspectives. The chi-square found that Mongolian communities in Japan including the presence of family members had a high statistical relationship with alumni's perspective transformation.

Most alumni were *pushed into* perspective transformation when faced challenging circumstances that made them realize that the way they made decisions, or their previously held beliefs and assumptions did work in the new situation. The most salient challenges came from professors, the demand for research works, and part-works. The literature on international students in Japan (Tamaoka et al., 2003; Murphy-Shigematsu, 2002a,b) emphasized the importance of effective communication with professors in student satisfaction and academic success; however, they did not explore how it influences students' perspectives and behaviours. This study found that in addition to effective communication for overall satisfaction, the challenges are also important for the transformative learning process.

Other challenges that pushed alumni to reflect on their assumptions came from their social duties in navigating children's school, a part-time work environment that exposed alumni into Japanese society and norms beyond the surface, and frequent contact with locals. While MGL alumni had the most extensive work experience either on or off campus, the JDS scholarship alumni had the least exposure to work due to their scholarship contract limits. The survey found that among MGL scholarship alumni, work experience had high statistical relations with their perspective transformation. These alumni in this pushed-in category viewed that their personal reflections on disorienting experiences, development of competencies such as organizational skills, self-drive to succeed, social support and role models, as well as family comfort zone were important to support that helped them overcome the challenges and grow.

The third entry type to perspective transformation was *testing the water*. Alumni in this last group did not face a dilemma or disorienting challenges that shook up their previously held beliefs and most did not actively explore to make meaning of their everyday experiences. While following the social norms and expectations out of respect and in order to fit in, they seem to have reflected more on others and less on themselves. As a result, their perceptions of others, such as Japan and Japanese society, the importance of research methods, or views about professional ethics and morality have expanded. However, their view about their own values, beliefs did not change. Charaniya (2012) noted that learner's attitude and personal characteristics such as intellectual curiosity, social humility, and being comfortable with ambiguity are important for transformative learning in cultural contexts especially when their previously held assumptions are challenged. Alumni in this study were mostly curious about learning Japanese culture and were ready to adjust their behavior out of respect and in order to fit in. However, they also needed guided reflections on their

experiences as well as opportunities to act on their learning which are fundamental aspects of the transformative learning process (Daloz, 2000). With lack of these conditions, alumni who were testing the water did not really have a full perspective transformation.

Learning activities that promote perspective transformation

Overall, two main areas of factors helped alumni to experience transformative learning: academic and social factors.

Academic factors. In addition to challenges from supervisors and research work, the questionnaire study found that classroom learning activities such as discussions, team project, seminar discussions were highly associated with students' perspective transformation. While strongly associated with perspective transformation, there was the low frequency of those who reported transformative classroom experiences. Similarly, only a couple of interviewees in both qualitative phases discussed the impact of classroom activities that made them question their previously held assumptions. In addition, the chi-square tests found that programming events such as orientation and language program, cultural events for international students as well as participation in academic conferences were related to perspective transformation. The academic learning activities in this study supported previous literature on international graduate students' transformative learning experience (Kumi-Yeboah, 2014) that reported support from advisors, teachers, classmates, and challenges from teachers as driving factors. In addition, this study found the Japanese language program, orientation programs, and other internship experience also played an important role.

Social factors. Both the interview and survey results show that family and community support played an important role in alumni's learning experience. Family, especially the presence of children opened up more opportunities to interact with local residents, schools, teachers, and community members, and to observe Japanese way of living, school system, outside the university environment. At the same time, navigating children's school and managing finances, especially for MGL scholarship students, presented challenges that pushed alumni to be more active and involved in the community. Many previous studies discussed the role of social support including family members, co-national, friends from the host country (Lee, 2017; Ward and Kennedy, 2001; Constantine, Kindaichi, Okazaki, Gainor, & Baden, 2005) in international students' adjustment to host culture. Similarly, family and community played a supportive role for alumni in this study to relieve stress, carry out

discussions, and share their experiences which helped them move from reflections towards actions.

Lack of challenging activities and support. Mezirow (1978, 2009) pointed to the importance of challenges that shake adults' existing frames of mind. However, only some alumni had challenging experiences that pushed them into personal reflections. While observations and comparisons in the society helped alumni to develop more contextual understanding and multiple perspectives, such learning was dependent on individual attitude towards the new environment. Without challenging experience and relevant support, some alumni could not develop perspective transformation. As Az's case shows, limited exposure to academic and social interaction, language barrier, lack of contact with her supervisor, little academic challenge and lack of engagement programs in English hindered her growth.

As presented in Chapter 2, Dassin (2018b) emphasized four areas of support for scholarship students during their study in the host country. Those were: 1) Individual professional development opportunities particularly when students' host universities lack career services or internship opportunities; 2) In-person meeting and electronic networking platforms, 3) Expose students to diversity, civic engagement and service learning and 4) Transitional support for post-study activities. Although the three scholarship programs aim to develop professionals who would contribute to their institutions, community, or home country, there were little support and programming offered by scholarship programs. While JDS scholarship has a social media group on Facebook that is run by the students and alumni themselves neither MEXT nor MGL students have any networking platforms to develop and maintain connections or exchange ideas or talk about their experiences. While JDS program started introducing network events for on-award students in Japan, none of the participants in this study who graduated at least two years before participating in this project experienced any service learning or social activities. While some host universities offer a variety of cultural activities, many universities had limited opportunities due to a small number of international students. Unless students actively explored such opportunities on their own, the scholarship programs did little to enhance their involvement in such activities. Consequently, alumni's experience was up to the host university, particularly the supervisor's involvement and their own personal attitude towards a new environment and challenges.

High prevalence of experiences that pushed alumni to reflect but lower perspective transformation

The survey found that 85% of alumni had an experience that made them question the way they normally act or their understanding of social roles. In other words, their assumptions, beliefs, attitudes, or values did not fully match their reality in Japan during their study at graduate schools. As Glisczinski (2005) and others (Mezirow, 1991) argued, this initial phase is a fundamental part of transformative learning. However, only 53% of participants tried taking actions or took an action on their learning.

This percentage (53%) was relatively higher compared to Glisczinski's study (2005) that studied senior pre-service teacher students (domestic undergraduate students in the US). His study found that only 35% of respondents had taken an action or made changes to their behaviour while 73% had disorienting events that challenged their previous behaviour.

On the other hand, the result of this study (53%) was lower than Kumi-Yeboah's (2014) study on international graduate students to the US that reported 79.6% of respondents had some level of perspective transformation. However, Kumi-Yeboah (2014) counted everyone who checked at least one item in perspective transformation stages and Yes/No self-evaluation question regarding one's own changes in values and beliefs. For example, if a respondent only faced dilemmas but not necessarily had reflections or changed their behaviours but still checked the final yes/no question to transformation, they were counted as having a perspective transformation.

This shows that first of all, more thorough analysis is needed to distinguish the actual change in learners' perspectives beyond their own self-evaluation. Second, students need more intentional programs that promote their learning from reflection all the way to the actions. While study abroad presents an opportunity to shake students' assumptions through academic challenges as well as social interactions, without intentional programs to facilitate dialogues and opportunities to try different roles or other supports to create the community of mentorship, the learners would not necessarily develop their individual agencies.

7.2. Ways in which alumni contribute to the home country

The findings from this study suggest that government-sponsored Mongolian alumni to contribute to the development was through professional jobs, part-time teaching, research, publication and community development works. This finding partially supports some of the seven channels to generate impact (Mawer et al., 2016) including policy development,

research, teaching, and publication and dissemination. However, alumni did not discuss much advocating (Mawer et al., 2016), sharing democratic values (Spilimbergo, 2009), or decreasing unemployment (McMahon, 2009).

Contribution to home country through job

Scholarship program evaluations often focus on job positions of alumni upon their program completion (Mawer, 2018). Similarly, retrospective studies measure the impact of the programs through alumni job positions (e.g. MEXT, 2011) in addition to other numerical data such as graduation and return rate (World Bank Institute, 2007). The participants in this study, both interview and survey phases, were working in HEIs, state research centers, public organizations including government agencies, international organizations, and private companies. In addition, a small percentage (20% of interviewees and 14% of survey respondents) were abroad—either in Japan or the USA—pursuing further degrees or working as researchers.

Both interview and survey studies found that alumni perceive they contribute to the home country through their professional works and by residing in the home country. Eighty-nine percent of survey respondents viewed that their knowledge and experience from Japan were useful to their work and 83% viewed that they used their knowledge in Mongolia. This was similar to previous studies that reported a high percentage of participants feeling high relevance of their studies and their work. Nearly all participants in an evaluation of the ADB's Japan Scholarship Program felt that the knowledge and skills gained through their studies were relevant and useful in their organization (Asian and Development Bank, 2007). Seventy-seven percent of DAAD scholarship holders reported a close match between the content of their academic studies and their current occupation (DAAD, 2013).

Alumni thought that they have either direct and indirect contribution to home country through their professional jobs. The direct contribution was through leadership role at the government level, drafting and proposing legislation, advocating, and leading reforms and policy changes. This small number of alumni had “elite multiplier” (Wilson, 2015) role who went to high ranking positions in government. These elite multipliers often had leadership positions before their international scholarship experience similar to Wilson’s description (2015). However, they did not stay in that position for a long time mostly due to political instability and precarious government jobs in Mongolia.

Another direct contribution identified in this study was through faculty members and educators who directly influenced students and their perspectives. Wilson (2015) called this,

“catalytic multiplier”, referring to those who exert a disproportionate influence on public opinion and the actions of others. Campbell (2017) emphasized the importance of employing alumni in government and higher education sectors to promote their contribution to home country development based on her study on Moldovan and Georgian alumni from US institutions. Similarly, this study found that alumni who had worked in government leadership positions and HEIs largely viewed that they have direct or indirect influence in national policy and education system.

On the other hand, researchers both in Mongolia and abroad said that they have indirect contributions. Researchers in Mongolia viewed that carrying on the research works regardless of the small pay and lack of recognition was a contribution that they can make in their home country to sustain research foundation in their fields. Through their networks and knowledge, they were able to secure funding from international organizations and foreign organizations. Similarly, the researchers abroad viewed talked about being able to draw international attention and funding towards Mongolia and helping Mongolian researchers get access to international network and resources.

Part-time teaching, volunteering, community service works, public lectures and presentations and creating networks such as NGOs were other ways that some other alumni perceived to give back. However, these activities were not prevalent among survey respondents. Only 21% viewed they give back through volunteering. In addition, alumni in this study also viewed that they have a direct contribution to the economy through personal income tax, thus, just living and working in the home country contributed to the home country.

Social networks. One of the main goals underlying the international scholarship programs is building long-lasting contacts. Mawer et al. (2016) found that while social ties tend to degrade over time, the professional contacts tend to stay overtime for UK Commonwealth scholarship alumni, although fewer scholars had established these networks during their study in the UK. Similarly, this study found that alumni stayed in touch with their professors, researchers, Mongolian students and other professional contacts than their peer Japanese students. The survey result showed that only one-third of respondents made Japanese friends while more than half stayed in contact with their professors, one third collaborated with Japanese researchers and one fifth received researchers and students from Japan to Mongolia. The scope of their relationship with host universities varied from collaborating on research projects or introducing new technologies to establishing institutional collaborations and

exchanges. Ph.D. graduates were more likely to collaborate with Japanese researchers, possibly due to the nature of their work as a researcher or faculty member. Conversely, JDS alumni, who are all Master's degree graduates were least likely to collaborate with Japanese researchers. In addition, those working in the private sector, especially in Japanese companies and those conducting research works were also likely to stay in contact with Japanese counterparts outside universities.

Besides international networks, alumni established strong relationships with other Mongolians who studied in Japan as well as other foreign countries both during and after their studies tied by shared values and goals. These networks were not necessarily called alumni associations, but rather, informal contacts. Alumni introduced their *kouhais* (junior alumni) to employers in Mongolia, helped with finding jobs, and supported each other's business, political campaigns. Besides such personal and professional support, alumni established NGOs to promote social awareness and advocate for policy changes. Campbell (2016) called such local and regional networks as "critical mass" that was leading change in the country, with alumni organizations serving as activity hubs (p. 10). However, this study found that alumni networks worked more on informal base. There was almost no support for these alumni groups from scholarship programs or governments. From the three programs, only the JDS scholarship program has its own alumni associations established by the alumni. While other government scholarship programs such as US government scholarships, DAAD (Germany), or Australian scholarship programs promote their alumni and their collaborative projects, the Japanese government does not have a strong connection with their alumni but rather a symbolic relationship.

Being role models. The third way to contribute to the home country development was perceived to be through their role as ethical and moral role models. During the interview, many alumni expressed their concern for lack of community morals and professional ethics, particularly in the capital city. Alumni had developed a strong sense of mannerism and importance of professional and personal ethics and morality as a result of their studies in Japan for 2 to even 10 years. Once back home, alumni compared the level of social responsibility and public manner in Mongolia to Japanese norms. While interviewees shared that they adjusted back to city life in Mongolia, their value for responsibility and professional ethics persisted. For researchers and faculty, this meant working independently on their work, being independent and producing quality work, for doctors it meant being ethical and true to

their work. Such sense of responsibility helped alumni to trust each other and collaborate with each other.

When asked about their role in the community, many emphasized their role to influence morality in their communities by being role models upholding their work disciplines, morals, ethics, and producing quality work. 60% of survey respondents viewed that they contribute to the professional sectors by being ethical and moral role models. Previous studies noted that alumni act as role models for other applicants to apply for the scholarship program (Dassin et al., 2017), and help new graduates during their post-graduation transition period (Burciul and Kerr, 2017). However, in this study, alumni viewed themselves to be role models not only for those who want to study in Japan but the wider younger generation and their communities.

7.3. Challenges and Support

Most alumni felt that their motivation to make changes in the home country was stronger when they first arrived Mongolia; however, such feelings seem to have degraded over time when there is more challenge than support and when work system and culture do not reward endeavors to make a change. Corruption, lack of critical mass of similarly minded professionals, lack of supportive workplace environment or leadership were other common factors. Majority of alumni indicated the urgent need for government policy to utilize their knowledge, skills, and network effectively.

The mismatch between educational experience in Japan and the home country context.

Murry-Shigematsu (2002a) had pointed to a gap between MEXT scholarship students' expectation regarding academic programs in Japan and the actual experience due to lack of information on professor's research areas, little knowledge about Japanese education system; students in their study often expected to be able to study in fields of their interests but found out after coming to Japan that they could not pursue that area mostly due to mismatch with professors' research interest. Murry-Shigematsu (2002a) also wrote that MEXT scholars arrived in Japan assuming they would automatically be able to enroll into degree programs and were surprised or even shocked when they learn that they need to take an exam and might not even be enrolled in their programs. Ikeguchi (2012) called this under-preparedness of Japanese host institutions and lack of information available in English. Alumni in this study had similar difficulties. Amar and Maral for example, could not apply their education

in full extent due to the mismatch of their research in Japan and the Mongolian context. Their research was based on Japanese geographic (surrounded by sea) and social context (high percentage of elders with financial capabilities) while Mongolia does not have sea and a low percentage of older people most of whom have little financial means. Such mismatch is not only lost the opportunity for the scholars but also for the home country. These alumni discussed two reasons for their choice of research topics or the mismatch. The first reason was the lack of information and under-preparedness from scholars themselves. Those who applied to scholarship programs before 2000 or early 2000s lacked internet access as well as skills to navigate through information. Today internet access is almost not an issue across major cities in Mongolia; however, in rural communities, students and even professionals still have limited access to the internet. In addition, as Ikeguchi (2012) critiqued, information in English was still limited despite the government goals to increase international student number. Thus, lack of available information hinders applicants to make an informed decision.

Second, students had to follow the lab research focus and it was almost impossible to change their institutions or departments. Alumni had to change their topics to fit with their professor's research focus. While for some this helped them succeed, for some such change meant that they would not be able to apply or continue that research in their home country. One of the underlying reasons for many MEXT and MGL scholars to have such mismatch was that the host institutions had accepted them as research students following the regulations of Japanese graduate schools. The research student period not only allowed students to adjust and prepare for entrance examinations but also for professors to make decisions whether to accept the students into degree programs or not. For example, Ulzii's professor accepted her for her background even though her research topic was different from the lab's focus. The professor had an expectation that the research students would change their topics slightly to fit the lab or the professors' focus. For scholarship students, however, this could be problematic when their objective is already formed by either their programs or their professional jobs. Already secured scholarships, they could not easily change their programs once they are in Japan. In addition, the inflexibility of program transfer and the expectation that students would change their topics can imply that host institutions and departments had little knowledge of scholarship goals, students' home country context especially when students come under their home government scholarship programs. Such lack of understanding has been noted in the literature as well (e.g. Makundi, Huyse, Develtere, Mongula, & Rutashobya, 2017; Marsh et al., 2016). Makundi, Huyse, Develtere, Mongula, & Rutashobya (2017), for example, noted that host institutions in China had little understanding

about scholarship students' home country context and their goals from their education in China. Such a lack of understanding and mechanisms to accommodate or support students in their learning goals hindered students' chances to reach their aims.

Work environment and lack of policy. The second type of challenges was the difficulty to apply their education and experience after coming back to Mongolia. Alumni often faced difficulties to be reinstated in their positions in government organizations because in their absence their job positions get dissolved, someone else gets hired, and mostly because there was no policy to support their employment even when they had made binding contracts with their employers. The literature on non-returnees and brain drain often talk about political instability of home country as a push factor for students to leave their home country or refrain from returning (e.g. Gungor & Tansel, 2008). While in Gungor & Tansel (2008) study, the political instability pushed alumni to stay abroad, for Mongolian graduates it pushed them towards international organizations or sometimes private sector in Mongolia. In addition, higher pay and work environments played an equally important role in their decision to move out of the public sector. This phenomenon of moving out of the public sector for better salary and professional advancement was also noted by Webb (2009) and Chesterfield and Dant (2013). Mawer (2018) called this "institutional brain drain". As the goal of both MGL and JDS scholarships are to strengthen public sector capacities through scholarship alumni, the failure to retain them after their program completion or beyond the required years seems to be a lost opportunity.

On the other hand, being reinstated to their previous job positions and working in a government agency did not mean that alumni could apply their education and experience at work, or that they could strengthen institutional capacity. For example, follow-up interviewee, Dulam, moved from research institution where she worked before her study to a government agency. Although she was in a leadership position as the director of a unit, she did not think she directly applies her research and knowledge from Japan due to underdevelopment of her sector in Mongolia. Among survey respondents, 75% of researchers in state research centers indicated and 64% of government employees viewed that they had little opportunity to share their knowledge in decision-making level. Campbell (2018) had noted that the institutional culture and working environment strongly influenced alumni's ability to apply their education. Similarly, alumni felt that the decision makers generally undermine the value of research and there were little interest or support for research works.

Thus, alumni often did not think they directly apply their research works in practice unless they continued conducting research works.

The third major challenge that tied all the above challenges up was general lack of policy to effectively support and utilize alumni. 82% of survey respondents agreed that there was a lack of government policies for alumni. Alumni felt that sustainable policy and effective coordination between the Ministry of Education and other government agencies and state organizations were needed. Although JDS and MGL scholarship programs had what Campbell (2018a) called as binding agreements that required the grantees to work for the public sector for certain years, alumni viewed that there were almost no mechanisms to actually make it work efficiently. Many alumni shared stories of being in vain when they came back, not knowing whether or not they would have a job or not. Much was dependent on the employer and the agreements they made had little value for employers. In the end, either organization would push the alumni out with no available vacancies, or alumni are pulled to better professional advancement and higher pay that are more available in private and non-governmental sectors.

Supports to mitigate the challenges

Almost all survey respondents had agreed that there should be government level human resource policy to effectively utilize alumni for home country development. This included policy mechanisms and better coordination between public organizations to enforce the scholarship agreements, to provide support for alumni to utilize their education and experience in their professional capacities, and other incentives for alumni to stay in public sector. Over 90% of respondents viewed that support for alumni associations was important that would promote networking among alumni and joint projects. While many other government scholarship programs such as DAAD and Fulbright have various platforms, MEXT or the Japanese government scholarship does not have an effective alumni platform. While only JDS scholarship program has alumni association of its own, junior alumni did not actively participate in events. On the other hand, MGL alumni had the highest willingness for alumni association because they barely knew each other.

7.4. Binding and non-binding agreements and career trajectories

Campbell (2018b) suggested that scholarship program conditions have the possible influence to alumni's trajectories as alumni go through complex decision-making process

considering multiple factors such as home country contexts, opportunities to apply their education, experience, and progress in the home country, as well as professional, financial, and other opportunities abroad. While all three programs in this study aimed to prepare professionals that would take important positions in their home country and either contribute to the institution or the home country, they differed by the type of agreements they make with alumni. Two of them—JDS and MGL scholarships have a binding agreement with alumnus requiring them to work for the public institution for a certain period of time. MEXT scholarship, the most flexible one, provides rather vague guidance regarding post-program activities which make it flexible for alumni to pursue any sector in any country or institutions.

In this study, the JDS scholarship alumni all returned to home country upon completion of the program but some left the home country again after qualifying the 2-year stay in home country requirement. The MGL scholarship alumni could stay abroad for a further academic degree or internship experience. Some alumni in this study had stayed in Japan about 10 years pursuing masters and doctoral degrees. There was no clear understanding of how long they could stay abroad. However, MGL alumni had collateral—immovable property that has a market value equal to scholarship program funding, that would be released upon 5 years of efficient work by alumni. The MEXT scholarship alumni had the most freedom as the scholarship program does not require them to return—although the program expects that alumni would return.

Both JDS and MGL scholarship programs require alumni not only to return to the home country but work for state organizations. Thus, among the survey respondents, a higher number of JDS alumni (39%) and MGL alumni (26%) were in the public sector than MEXT alumni (8.6%). In addition, most MGL alumni (30%) were working in non-HEI research centers. On the other hand, almost half of MEXT scholarship alumni (43%) who responded the survey were working in private sector while 13% of MGL and 12% of JDS alumni were in private sector. While this difference in job distributions across public, private and academia seem to support Campbell's (2018) argument that scholarship program conditions influence alumni job trajectories, it also shows alumni are highly mobile between and within fields. The JDS and MGL alumni had often moved out of public sector either upon their return to home country or after certain periods. In other words, the binding agreement was not working well largely because there were almost no mechanisms to enforce the agreement.

In absence of concrete policy and mechanisms, the binding agreement was not taken seriously by employers and there were many gaps in the actual implementation stage once

alumni completed their programs. The MGL scholarship alumni had the most difficulties because they needed to release their collaterals which required them to work for five years in the public sector but there was no support for them to actually get a job in public sector. According to one of the administrators of MGL scholarship program, alumni were released from their agreement as long as they report their employment in Mongolia to the administrators and work for five years in Mongolia at any institution. She called this “non-written practice” due to lack of job vacancies in the public sector. However, such practice has problems. First, it is not written in the actual agreement. Thus, the decision-makers or scholarship administrators have the power to make personal judgments to release their collaterals or not. It is also misleading for scholarship grantees. Many take low-paid jobs in the public sector but if any job in Mongolia can satisfy their agreement, they could take higher paying jobs. Second, if alumni are waived from collateral by working in any sectors in Mongolia, the meaning behind binding-agreement is lost. Why is there such a binding agreement in the first place?

Mawer (2018) wrote that there are two plausible hypotheses for alumni mobility at the institutional level, (1) individual mobility away from institutions erodes critical mass by dispersing talent across a wider range of institutions or (2) individual mobility facilitates critical mass formation because of highly regarded centers. Mongolian government agencies that sent their employers abroad lost their capacities when they cannot retain alumni once they complete their programs. On the other hand, HEIs especially the national universities that retained and recruited alumni with Ph.D. degrees have the potential to form a critical mass.

7.5. Limitations of the study

The findings of this research need to be considered in terms of the study's limitations. There are three limitations in this study: 1) sample size and lack of random selection, 2) focused only on successful graduates who completed their programs, 3) self-reporting data, 4) did not distinguish alumni by their host universities, fields of study in the analysis. First, the study participants were not randomly selected from all Mongolian alumni who participated in the three scholarship programs. For the interview phase, alumni were selected through purposive snowballing methods to find alumni with as diverse demographic data as possible. For the survey, the scholarship program administrators of MGL and JDS programs sent out the invitation to survey to the all available contacts while MEXT scholarship

administrator in Mongolia or JASSO did not have a full list of alumni contacts. Thus, alumni associations in Mongolia, as well as other social media sites, were used to disseminate the survey information as widely as possible. With no full list of alumni contacts, it was impossible to randomly select alumni for this study.

Second, alumni who were willing to participate in this study were all who had successfully graduated from their programs. There was only one participant who could not complete their degree program. While JDS scholarship program administrators assured that all of their grantees had successfully graduated, it was difficult to know for MGL scholarship administrators whether the students simply did not return to home country or did not complete their program. If students do not report their status, MGL scholarship administrators could not track them. As for MEXT scholarship, the embassy only had the number of grantees that they nominated from the embassy who left Mongolia as research student grantees. However, they did not know whether these grantees had entered their degree programs, changed their institutions or not, and whether they graduated or not. JASSO started to track alumni only from 2014; thus, they also did not have any list of successful and unsuccessful grantees. Therefore, it was impossible to get a sense of success and dropout rates let alone involving unsuccessful grantees.

The third limitation was that the finding was based on alumni's own accounts. Problems with self-reporting data include biased viewpoints, exaggeration or minimization of accounts, and limits the experience to one's own understanding. As this study aims to understand alumni's own voices and how they make meaning of their experience both during and after their study, self-reporting data was important. Thus, the first phase was all about alumni's own perceptions. Thus, it is important not to generalize the interview findings as they do not represent all alumni. However, the survey questions included more straightforward questions that limited subjective answers such as their current job, ability to return to their previous organization, ability to form networks in Japan, participation in certain activities including alumni association, and general challenges and supports needed for all alumni.

Finally, the study aimed to collect alumni from diverse host institutions, academic disciplines, and from different time period during which students studied in Japan. Academic cultures, learning environment, relationship between professors and students differ between institutions and disciplines which can influence students' perspectives. For example, while natural science oriented disciplines generally have research projects with which a student's research focus needs to relate, the humanities and social sciences generally do not restrict

students' research topics in the same way. While this study fails to substantially recognize how different academic culture influence students' learning experience, collecting cross-sectional data from diverse students help us see the shared themes regardless of diversity. In addition, the survey study made it possible to compare students' experiences by their areas of studies and other demographic information.

7.6. Implications of the findings

- *For scholarship program funders and administrators, and host universities, departments, and professors to foster more meaningful and rich learning experience for students during their study in Japan.*

As international educators argued, sending students abroad or having international students on campus does not mean that they develop optimal skills, a good understanding of host country's culture, and build important personal networks that these programs hope for. Scholarship programs rely on host institutions but as this study has shown there is a gap between what programs expected to gain from their study in Japan and what they actually studied. In order to achieve optimal outcomes from international higher education scholarship programs, scholarship program administrators need to have 1) increased interest in the learning experience of scholarship students, 2) improved communication with host institutions, if possible, the professors 3) create a platform for students to build meaningful connections, network, and most importantly to share ideas.

Scholarship programs need to be actively involved in students' learning activities to ensure that students gain the intended outcome from their experiences. First of all, programs need to include student learning experience in their evaluations and offer programs that expand their perspectives and networks. Programs that challenge students' existing beliefs about social responsibility, professional ethics, and morality (common areas pointed out by the participants in this study with perspective transformation) have potentials to trigger personal reflections. Such programs need to be followed by intentional discussion and opportunity for students to act on their new perspectives. Such facilitated reflection, discussion and space to apply their understanding is important for students to make connections between these extracurricular activities and their bigger academic and social learning in Japan. Some examples for such programs are activities that bring together scholarship students and local Japanese people such as fieldworks, part-time work or internship opportunities that enable students to get exposed to Japanese work styles as well as

help them apply their research and knowledge in practice. Such programs should be available in English or English support should be provided as many students lost opportunities to get involved in such programs due to the language barrier.

Improved communication between host institutions and scholarship programs is vital to minimize the gap between program goal and the actual learning. If the scholarship program aims to assist the home country development, students' research topics should be suitable to the home country context. In addition, through improved communication, scholarship program administrators could negotiate with host institutions to offer enrichment programs to expose students to unexpected and challenging experiences.

In addition, this study showed that professors in the host university play important role in students' learning. Informational orientation dedicated for professors to provide information on scholarship program goals, students' home country background would be useful for professors to have a better understanding.

- *For Mongolian government to consider policy mechanisms to support alumni*

The binding agreement that MGL and JDS scholarships make with grantees was not enough to ensure alumni apply their knowledge and skills in Mongolia or that they strengthen their institutional capacities and quality of their work without more concrete policies to support alumni. First, such agreements were not taken seriously by employers in the public sector especially in government agencies. In addition, there were many other gaps in the implementation of this agreement. While this connects to bigger systemic issue of politics and the need for sustainable and transparent government work, there is also lack of overall policy dedicated to support alumni in their career and research trajectory.

The study showed that alumni from all three scholarship programs were motivated to contribute to the home country. Many doctoral degree graduates were already working in educational institutions, mainly universities and research centers. These institutions provided more independent and flexible working conditions and opportunities to apply their knowledge and experience. The national policy can start from here and target higher education institutions and research centers by tying it with higher education reform initiatives. Although individual HEIs are aiming to recruit Ph.D. graduates from foreign institutions, national policy can provide support by connecting it with MGL scholarship program. Such policies with concrete incentives such as higher pay, opportunities to develop joint research projects cannot only attract alumni but also provide opportunities to apply their learning experience. Currently, the aim for JDS and MGL scholarships is to develop public institutions; if so, there should be actual mechanisms to facilitate the graduates' employment

process, to minimize the gap between publicly stated goals and practice, and to foster an environment where alumni can apply their ideas. One mechanism is to have shared understanding between scholarship program administrators and employers through improved communication, better coordination to hire and promote alumni.

Another important step is to have a comprehensive evaluation of scholarship programs, better tracking systems that continue for long-term, and most importantly, reflect the evaluation studies in program improvements. Comprehensive tracking of alumni is mandatory as well as more open and transparent communication with grantees. Social media, online platforms, national gatherings, and other alumni activities can be ways to trace alumni for a long time. In sum, with a growing number of Mongolians studying abroad, there needs to be a comprehensive policy on human capital, student mobility, and international education as well as concrete, feasible, and sustainable plans to accomplish such policy.

- *For scholarship program funders and administrators* to consider support for alumni beyond their graduations. This includes financial support for alumni initiated projects, networking events, and dialogues between alumni and other stakeholders.

The study found that alumni are motivated to carry on discussions on current issues in Mongolia and conduct joint projects. Alumni themselves have already initiated such networks and have been running alumni pages, groups on social media, organizing gatherings and events or starting projects with others. However, they need financial and administrative support to expand the scope. When motivation, initiatives, and ideas to make a difference are lost due to the feeling of powerlessness and frustration, the original aim of scholarship programs are also lost or significantly delayed. Thus, alumni engagement beyond graduation is important for these scholarship programs. The scholarship program administrators could create platforms for alumni to network both within and across fields of studies, professions, and host universities. Alumni with less professional experience often need support during the initial years after coming back; however, they might not be readily available to start contributing to the community. Many are busy with their own lives in the first few months or years after arrival. Thus, the activities should be open for all graduates with different needs and interest. The platform can create networking opportunities, provide support and facilitate alumni initiatives. In other words, there should be an opportunity for them to get together even after 10 or more years later.

7.7. Contribution to the literature

This study contributes to the literature in three distinct ways. These are 1) theoretical framework to study scholarship alumni and students' learning experience and outcome, 2) analysis of post-program trajectories by scholarship program conditionalities and 3) adding Mongolian alumni voices to scholarship program literature.

Theoretical contribution. Literature review in Chapter 2 identified a gap in understanding scholarship students' learning experience. Thus, this study explored the learning experience of government scholarship programs through transformative learning theories. The learning experience is rarely included in scholarship program evaluations (Mawer, 2018) and when studied, they are not explored from specific learning theories. Transformative learning theory had much to offer to scholarship program analysis. It makes it possible to promote the learning experience that expands and transforms people's view of the world and themselves and develops grantees' personal agency. Immersion in challenging experience is important for scholarship students. Unknown, unfamiliar experiences, academic and research work challenges, interaction with local residents trigger students' personal reflections. Supportive community including family members, same ethnic groups and other peer students provide important support that enables learners to share their thoughts. Professors and advisors play important role to support student learning as well. In addition, scholarship program student networks and platforms have further possibilities to support learners.

Findings from this study are incorporated into the conceptual framework presented in Chapter 2. The original conceptual framework was drawn from international higher education logic model for low- and middle-income countries by Campbell (2016) as well as relevant theories. The new model combined the findings from this study with the original model and presents both learning experience, individual and social outcome as perceived by alumni in this study.

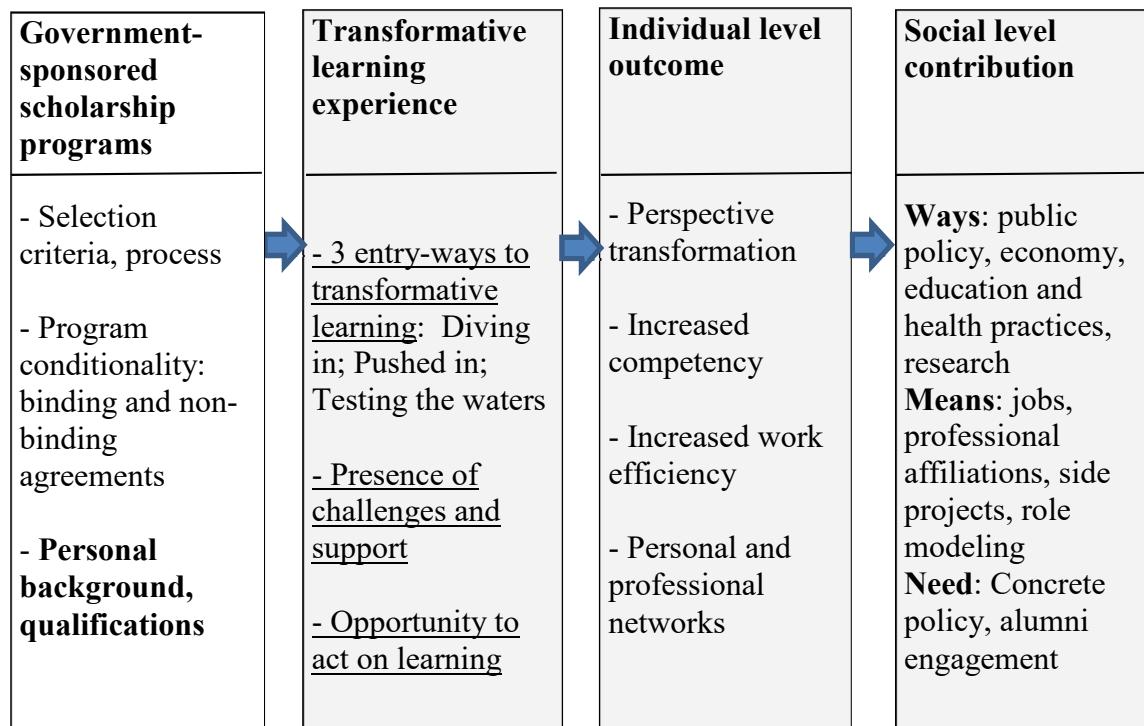


Figure 7-1 *Adjusted framework for scholarship programs*

Program conditions: binding and non-binding agreements and their influence in the outcome. Another gap in the literature was lack of comparative study between scholarship program with similar aims but different conditions. The study found that home country contexts and many other factors hindered the binding agreement to achieve its aim. Lack of overall policy and supportive mechanisms led to various gaps in the implementation and ended up creating various non-written practices to waive or not waive alumni from the binding agreement. Instead of binding agreement that penalizes and punishes alumni for their pursuit of professional and personal interests, programs can work on attracting students to home country by offering transparent information about career, professional incentives, and networking and other programs to encourage alumni to apply their education, experience, and networks for positive changes in their sector or the communities they live. The study found that concentrating alumni in academic or research institution has much promise if supportive policy and funding are also incorporated.

Mongolian alumni's experiences. While student mobility and international education is much studied, little is known of peripheral countries. While highly mobile, Mongolian international students and their mobility is little studied due to small population size. This study filled this gap by exploring Mongolian alumni of Japanese graduate schools sponsored

by three scholarship programs. While many more are left to be studied, their voices and experiences contribute to the literature.

7.8. Areas of proposed future research

This study proposes six areas for further research. These include 1) the socio-economic status and profile of scholarship takers to analyze whether these government scholarships contribute to social inequality in the home country, 2) influence of family to alumni success and the study abroad experience to the family, 3) longitudinal study to follow up how long the perspective transformation persists, whether alumni change back to their previous perceptions, in longer run in twenty, thirty years, 4) study scholarship alumni who could not graduate from their programs, 5) comparison of scholarship alumni with those who studied in Japan on private funds, and 6) comparison of Mongolian government scholarship alumni from Japanese schools with those who studied in other countries as well as comparison of Mongolia with other developing countries.

First, the qualitative interview study touched upon the profile of scholarship alumni-- and found that most interviewers had a high level of education, solid professional experience, and many had the previous study abroad experiences. The profile of scholarship students both before and a long time after programs are important to make sure that these programs do not contribute to expanding the existing social inequality in the home country. While creating an egalitarian society or supporting students from low socioeconomic and non-elite backgrounds is not the goal of any of these three programs, it can significantly hinder program outcome. Further study can specifically focus on the profile of grantees and the selection process. For this purpose, systemic tracking of alumni and collecting their socioeconomic background (e.g. high school, parents' education, previous study abroad experience, hometown) is important. At the moment none of the programs collect such personal demographic information.

Second, further research is needed to fully understand the impact of family members for scholarship students. Family played an important role in how alumni evaluated their experience in Japan. The study suggested both the pros and cons of having a family. The pros were family served as a comfort zone to de-stress and carry out dialogues, motivated students to be more active in learning language, in participating in local communities, and children pushed the students to get involved in local school events, and made it easier to observe other parents, children, and education systems. Cons were financial pressure especially for MGL

scholarship students whose scholarship was already very limited, difficulties to facilitate children's school, and other challenges to help children adjust and be successful in different school systems. Thus, further study can focus on longitudinal study and compare students with family to those without family, or those who brought their family with them to those who did not, and explore how it influences the outcome.

Third, this study found that more than half of study participants had perspective transformation during their study in Japan. While this study involved alumni from as early years as possible, the longest years after graduation was 15 years due to a short history of these scholarship programs. Further study can follow up with these participants to examine whether they reverse back to their previous perspectives, whether the contextual factors such as their career, professional characteristics, and other home country contexts influence such reverse movement.

Fourth, the study showed that those with challenging academic experience had transformative learning. Thus, the question arises regarding those who could not graduate or who were unsuccessful in the program. Can too much challenge lead students to fail in their study rather than help them grow? JASSO started tracking MEXT graduates only in 2014. This information is crucial to understand both learning experience that led students fail, and to evaluate the program outcomes. In addition, study on perspectives of professors who supervise international scholarship students would be useful to understand main factors that promote transformative learning for international students from professors' point of view and explore possible ways to foster an intentional learning experience to develop students' agency.

Fifth, further study is needed to compare learning experiences and post-program trajectories of government scholarship students with those who came to Japan with private funds. While previous literature involved both private and scholarship funded students, they did not compare their learning process as well as their contribution to home country development after graduation. While private funded students do not have obligations to go back to their home country and work for the certain sector for certain period of years, such study on Mongolian context is important for Mongolian policymakers to develop provisions on study abroad students, and how to effectively utilize them for home country development.

Finally, more comparative studies are needed to see different outcomes and trajectories of scholarship alumni by program conditions. One idea is to compare MEXT and JDS scholarship alumni Japanese government alumni from other countries as well as alumni from other countries supported by their own governments.

References

Altbach, P. G. (2004). Globalisation and the university: Myths and realities in an unequal world. *Tertiary Education & Management, 10*(1), 3-25.

Amazan, R. C. (2014). When the Diaspora Returns: Analysis of Ethiopian returnees and the need for highly skilled labour in Ethiopia. *Internationalisation of higher education and global mobility*, 169-186.

Amazan, R., Negin, J., Howie, L., & Wood, J. (2016). From extraction to knowledge reproduction: The impact of Australia's development awards on Uganda and Mozambique. *The International Education Journal: Comparative Perspectives, 15*(1), 45–65. Retrieved from <https://openjournals.library.sydney.edu.au/index.php/IEJ/article/view/10443/10398>

Asian Development Bank. (2007). *ADB's Japan funds: Japan Scholarship Program*. Manilla: Asian Development Bank.

Atkinson, C. (2010). Does Soft Power Matter? A Comparative Analysis of Student Exchange Programs 1980-2006. *Foreign Policy Analysis, 6*(1), 1–22. <https://doi.org/10.1111/j.1743-8594.2009.00099>.

Atkinson, C. (2015). The role of US elite military schools in promoting intercultural understanding and democratic governance. *All Azimuth, 4*(2), 19–29.

Balfour, S. (2016). SDG target 4b: a global measure of scholarships; Background paper prepared for the 2016 Global education monitoring report, Education for people and planet: creating sustainable futures for all; 2016. Retrieved from <http://unesdoc.unesco.org/images/0024/002455/245570e.pdf>

Banya, K., & Elu, J. (2001). The World Bank and financing higher education in Sub-Saharan Africa. *Higher Education, 42*, 1–34. Retrieved from <https://link.springer.com/content/pdf/10.1023%2FA%3A1017584501585.pdf>

Baraulina, T., Bommes, M., & El-cherkeh, T. (2007). Egyptian, Afghan, and Serbian diaspora communities in Germany: How do they contribute to their country of origin? *HWI Research Papers (Migration-Migration Research Group), 3*, 5.

Batbayar, T. (2002). Geopolitics and Mongolia's Search for Post-Soviet Identity. *Eurasian Geography and Economics, 43*(4), 323–335. <https://doi.org/10.2747/1538-7216.43.4.323>

Battur, P. J. (2013). Mongolian-Korean Relations in the Xx Century. *World Congress of Korean Studies, 1*–16.

Baxter, A. (2018). The benefits and challenges of international education: Maximizing learning for social change. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International*

scholarships in higher education (pp. 105–129). New York: Palgrave Macmillan.

Baumgartner, L. M. (2012). Mezirow's theory of transformative learning from 1975 to present. In E. W. Taylor, & P. Cranton (Eds.), *The handbook of transformative learning: Theory, research, and practice*, (pp. 37-55). John Wiley & Sons.

Baxter, A. R. (2014). *The Burden of Privilege: Navigating Transnational Space and Migration Dilemmas among Rwandan Scholarship Students in the U.S.* University of Minnesota, St. Paul, Minnesota, USA.

Becker, G. S. (1975). *Human capital: A theoretical and empirical analysis, with special reference to education*. New York: National Bureau of Economic Research.

Becker, G.S. (1993). *Human capital: A theoretical and empirical analysis, with a special reference to education*, University of Chicago Press, Chicago, IL.

Bhandari, R. and Mirza, Z. (2016). *Scholarships for Students from Developing Countries: Establishing a Global Baseline* (ED, GEMR, MRT, 2016, P1, 11 REV), Paper Commissioned for the Global Education Monitoring Report, Education for People and Planet: Creating Sustainable Futures for all, Paris: UNESCO.

Bradford, A. (2015). *Internationalization Policy at the Genba: Exploring the Implementation of Social Science English-Taught Undergraduate Degree Programs in Three Japanese Universities*. (Doctoral Dissertation). Retrieved from <https://doi.org/UMI: 3687531>

British Council and DAAD. (2014). *The rationale for sponsoring students to undertake international study: an assessment of national student mobility scholarship programmes*. Manchester: British Council. Retrieved from https://www.britishcouncil.org/sites/default/files/e002_outward_mobility_study_final_v2_web.pdf

Brookfield, S. D. (2012). Critical theory and transformative learning. In E. W. Taylor, & P. Cranton (Eds.), *The handbook of transformative learning: Theory, research, and practice* (pp. 131-146). San Francisco, CA: Jossey-Bass.

Burciul, B., & Kerr, K. (2018). Case study: Education in support of social transformation-- The Mastercard Foundation scholars program. In J. Dassin, R. Marsh, & M. Mawer (Eds.) *International scholarships in higher education* (pp. 329–343). New York, NY: Palgrave Macmillan.

Campbell, A.C. (2016). *International scholarship programs and home country economic and social development: Comparing Georgian and Moldovan alumni experiences of “giving*

back. ” University of Minnesota, Minneapolis.

Campbell, A. (2017). How international scholarship recipients perceive their contributions to the development of their home countries: Findings from a comparative study of Georgia and Moldova. *International Journal of Educational Development*, 55, 56–62.
<https://doi.org/10.1016/j.ijedudev.2017.05.004>

Campbell, A. (2018). International Scholarships in Higher Education, 165–186.
<https://doi.org/10.1007/978-3-319-62734-2>

Campbell, A., & Baxter, A. (2018). Exploring the attributes and practices of alumni associations that advance social change. *International Journal of Educational Development*, (October), 1–9. <https://doi.org/10.1016/j.ijedudev.2018.10.003>

Campbell, A., & Mawer, M. (2018). Clarifying Mixed Messages: International Scholarship Programmes in the Sustainable Development Agenda. *Higher Education Policy*, (2015), 1–18. <https://doi.org/10.1057/s41307-017-0077-1>

Capuano, S., & Marfouk, A. (2013). African Brain Drain and Its Impact on Source Countries : What Do We Know and What Do We Need to Know? *Journal of Comparative Policy Analysis : Research and Practice*, 15(4), 297–314.
<https://doi.org/10.1080/13876988.2013.813122>

Chalid, M. (2014). Soft skills, intercultural competency and transnational education: An Australian-Indonesian case study. *International Journal of Arts & Sciences*, 7(1), 359–373.

Charaniya, N. K. (2012). Cultural-spiritual perspective of transformative learning. In: E.W. Taylor, and P. Cranton (Eds.), *The handbook of transformative learning: Theory, research, and practice* (pp. 231-244), San-Francisco: Jossey-Bass.

Chesterfield, R., & Dant, W. (2013). *Evaluation of LAC Higher Education scholarships program: Final report*. North Bethesda, MD.

Coghlan, A., & Gooch, M. (2011). Applying a transformative learning framework to volunteer tourism. *Journal of Sustainable Tourism*, 19(6), 713–728.
<https://doi.org/10.1080/09669582.2010.542246>

Constantine, M. G., Kindaichi, M., Okazaki, S., Gainor, K. A., & Baden, A. L. (2005). A qualitative investigation of the cultural adjustment experiences of Asian international college women. *Cultural Diversity and Ethnic Minority Psychology*, 11(2), 162-175

Creed, C., Perraton, H., & Waage, J. (2012). Examining Development Evaluation in Higher Education Interventions: A Preliminary Study. *Unpublished paper, London International Development Centre*.

Creswell, J. W. (2009). Mapping the field of mixed methods research. *Journal of Mixed Methods Research*. 3(2), 95-108.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed method. Research design Qualitative quantitative and mixed methods approaches*. <https://doi.org/10.1007/s13398-014-0173-7.2>

Creswell, J. W., & Plano Clark, V. L. (2007). Choosing a Mixed Method Design. *Designing and Conducting Mixed Methods Research*, 58–89. <https://doi.org/1412927927>

CSIS-China power. (2018). Is China both a source and hub for international students? Retrieved from: <https://chinapower.csis.org/china-international-students/?fbclid=IwAR2Or6Klt5FoKnF9Z6eKm9vLHdWMhaWgZiUAhO2mLYu1tvauEo42VMa1WAo>. Dataset available from https://docs.google.com/spreadsheets/d/1A7YDhF9T3OOjQGuB-I85EfrIGf3rPeR3_JKex_vCHu0/edit?fbclid=IwAR2ksECnouvCiFaQ58GgVbbwt1ct-17byR6kW_Qk0nI2Iv8N2DAp6t50A4A#gid=0

DAAD. (2013). *Knowledge - Action - Change, Three alumni surveys in review: 25 years of DAAD postgraduate courses*. Bonn.

Daloz, L. A. P. (2000). Transformative learning for the common good. In Mezirow, J (Ed.) *Learning as transformation: Critical perspectives on a theory in progress* (pp. 103-123). San-Francisco: Jossey-Bass Publishers

Dant, W. P. (2010). *Squaring their roots: Leadership perceptions and practices of some U.S.-trained African professionals in the public sector*. University of Maryland, College Park, College Park, Md.

Dassin, J. (2018a). Introduction: Pathways for social change? In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 3–21). New York, NY: Palgrave Macmillan.

Dassin, J. (2018b). Lighting The Paths to Change: how on-award activities can help to improve scholarship outcomes, 1–14. Retrieved from <https://www.ieaa.org.au/documents/item/1260>

Dassin, J., & Navarrete, D. (2018). International scholarships and social change: Elements for a new approach. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 305–327). New York, NY: Palgrave Macmillan. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-62734-2_15

Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*,

10(3), 241–266. <https://doi.org/10.1177/1028315306287002>

Del Sordi, A. (2018). Sponsoring student mobility for development and authoritarian stability: Kazakhstan's Bolashak programme. *Globalizations*, 15(2), 215–231. <https://doi.org/10.1080/14747731.2017.1403780>

Dirkx, J. (1998). Transformative Learning Theory in the Practice of Adult Education: An Overview. *PAACE Journal of Lifelong Learning*, 7, 1–14.

Dirkx, J. (2001). Images, transformative learning, and the work of soul. *Adult learning*, 12, 15–16.

Docquier, F., Lowell, L., & Marfouk, A. (2009). A Gendered Assessment of Highly Skilled Emigration. *Population and Development Review*, 35(2), 297–321.

Dong, L., & Chapman, D. W. (2008). The Chinese Government Scholarship Program: An Effective Form of Foreign Assistance? *International Review of Education*, 54(2), 155–173. <https://doi.org/10.1007/s11159-007-9075-7>

Dudden, A. P., & Dynes, R. R. (Eds.). (1987). *The Fulbright experience, 1946–1986: Encounters and transformations*. Transaction Publishers.

Dwyer, M. J. (2004). More Is Better: The Impact of Study Abroad Program Duration. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10, 151–163. Retrieved from <http://eric.ed.gov/?id=EJ891454>

Education Loan Fund. (2017). Programs financed by Education Loan Fund, related decrees, and implementation process. *Unpublished document*.

Enders, J., & Kottmann, A. (2013). *The International Fellowships Program: Experiences and outcomes*. Enschede, NL: University of Twente.

Engle, L., & Engle, J. (2012). Beyond immersion: The American University Center of Province experiment in holistic intervention. In M. Vande Berg, R. M. Paige, & K. H. Lou (Eds.), *Student learning abroad: What our students are learning, what they're not, and what we can do about it* (pp. 284–307). Sterling, VA: Stylus.

Falk, J. H., Ballantyne, R., Packer, J., & Benckendorff, P. (2012). Travel and learning: A neglected tourism research area. *Annals of Tourism Research*, 39(2), 908–927.

Fantini, A., & Tirmizi, A. (2006). Exploring and Assessing Intercultural Competence. *World Learning Publications*. Retrieved from https://digitalcollections.sit.edu/worldlearning_publications/1

Farrar, G. L. (2007). *Educationally Channeled International Labor Migration: Post-1978 Student Mobility from China to Japan*. The University of Chicago.

Foronda, C., & Belknap, R. A. (2012). Transformative learning through study abroad in low-

income countries. *Nurse Educator*, 37(4), 157–161. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22688874>

Furuoka, F., Oishi, M., & Kato, I. (2010). From aid recipient to aid donor: Tracing the historical transformation of Japan's foreign aid policy. *Electronic journal of contemporary Japanese studies*, 3. Retrieved from www.japanesestudies.org.uk

Fry, G. (1984). The Economic and Political Impact of Study Abroad. *Comparative Education Review*, 28(2), 203–220.

Gambrell, J. A. (2016). Beyond personal transformation: Engaging students as agents for social change. *Journal of Multicultural Affairs*, 1(2), article 2. Retrieved from <http://scholarworks.sfasu.edu/cgi/viewcontent.cgi?article=1014&context=jma>

Glisczinski, D. J. (2005). *Transformative teacher education (Doctoral dissertation, University of Minnesota)*. Retrieved from <http://www.d.umn.edu/~dgliscz/Glisczinski%0A/Glisczinski2005.pdf>

Gosling, M. (2008). *Scholarships effectiveness review (parts 1, 2, & 3)*. Unpublished report: AusAID.

Goodman, R. (2005). W(h)ither the Japanese University? An Introduction to the 2004 Higher Education Reforms in Japan. In J.S. Eades, R. Goodman, and Y. Hada (Eds.) *The 'Big Bang' in Japanese Higher Education: The 2004 Reforms and the Dynamics of Change*. Melbourne: Trans Pacific Press.

Greene, J. C. (2007). *Mixed methods in social inquiry* (Vol. 9). John Wiley & Sons.

Gribble, C. (2008). Policy options for managing international student migration: The sending country's perspective. *Journal of Higher Education Policy and Management*, 30(1), 25–39. <https://doi.org/10.1080/13600800701457830>

Freire, P. (1970). *Pedagogy of the Oppressed*, trans. Myra Bergman Ramos. New York: Continuum.

Hansen, S., Boeren, A., Lexow, J., Wirak, A., Sigvaldsen, E., Fergus, M., ... Hossain, I. (2005). *Evaluation of the Norad Fellowship Programme*. Oslo: Norad.

Hart, R. (2017). Soft Power of Government Funded Scholarship Schemes--How to Measure Impact? <https://www.acu.ac.uk/about-us/blog/soft-power-governmentfunded-scholarship-schemes-how-measure-impact>

Horie, M. (2002). The internationalization of higher education in Japan in the 1990s: A reconsideration. *Higher Education* 43(1), 65-84.

Hsiao-Ying, T. (1995). Sojourner adjustment: The Case of Foreigners in Japan. *Journal of Cross-Cultural Psychology*, 26(5), 523–536. <https://doi.org/10.1177/0022022195265005>

Huang, F. (2006). Internationalization of curricula in higher education institutions in comparative perspectives: Case studies of China, Japan and the Netherlands. *Higher Education*, 51, 521-539. doi: 10.1007/s10734-004-2015-6

Ikeguchi, C. (2012). Internationalization of Education & Culture Adjustment The Case of Chinese Students in Japan. *Intercultural Communication Studies*, 21(2), 170–184.

IkonNews. (2016). Mongolian diaspora in the world. Retrieved from: <https://ikon.mn/n/u9h>

Jackson, J. (2015). Becoming interculturally competent: Theory to practice in international education. *International Journal of Intercultural Relations*, 48, 91–107. <https://doi.org/10.1016/j.ijintrel.2015.03.012>

Japanese Embassy in Ulaanbaatar. (2017). 「日本政府奨学金留学生（モンゴル国）」. [Japanese government scholarship students (Mongolia)]. *unpublished document*.

JASSO. (2016). *Result of an annual survey of international students in Japan 2015*. Retrieved from https://www.jasso.go.jp/en/about/statistics/intl_student_e/2015/index.html

JASSO. (2017). *Result of an annual survey of international students in Japan 2016*. Retrieved from https://www.jasso.go.jp/en/about/statistics/intl_student_e/2016/index.html

JASSO. (2017). Trend of Mongolians students in Japan (2004-2017). Unpublished data.

JDS., n.d. *The project for human resource development scholarship: About JDS*. Retrieved from: <http://jds-scholarship.org/about/index.html>

JICA., n.d. *The project for human resource development scholarship* [online]. Available from: https://www.jica.go.jp/activities/schemes/grant_aid/summary/JDS.html

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1(2), 112–133. <https://doi.org/10.1177/1558689806298224>

Johnson, J., & Regets, M. (1998). *International mobility of scientists and engineers to the United States – Brain drain or brain circulation?* Arlington, VA: National Science Foundation

Jonkers, K., 2008. *A comparative study of return migration policies targeting the highly skilled in four major sending countries*. MIREM Analytical Report, AR2008-05, RSCAS/EUI, Florence.

Kameoka, Y. (1996). Issues surrounding mobility with particular reference to Japan. *European Journal of Education*, 31(2), 243-249.

Kamibeppu, T. (2012). Internationalisation of higher education in Japan. In M. Magnan, M. Söderqvist, H. G. van Liempd and F. Wittman (Eds.), *Internationalisation of European higher education: An EAIE handbook*. (A 3.2-3). Retrieved from <http://www.handbook-internationalisation.com>

Kegan, R. (2000). What “form” transforms? A constructive-developmental approach to transformative learning. In J. Mezirow (Ed.), *Learning as transformation* (pp. 35-70). San Francisco, CA: Jossey-Bass.

Kent, A. (2018). Recent trends in international scholarships. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 23–42). New York, NY: Palgrave Macmillan.

King, K. P. (2009). *The handbook of the evolving research of transformative learning based on the Learning Activities Survey*. IAP.

Kim, D., Bankart, C. A. S., & Isdell, L. (2011). International doctorates: Trends analysis on their decision to stay in US. *Higher Education*, 62(2), 141–161.
<https://doi.org/10.1007/s10734-010-9371-1>

Kim, J. (1998). Economic analysis of foreign education and students abroad. *Journal of Development Economics*, 56(2), 337–365. Retrieved from <https://ideas.repec.org/a/eee/deveco/v56y1998i2p337-365.html>

Kirkland, J. (2018). Case study: Balancing change and continuity--The case of the commonwealth scholarship and fellowship plan. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 187–207). New York, NY: Palgrave Macmillan.

Klees, S. (2016). Human capital theory and rates of return: Brilliant ideas or ideological dead ends? *Comparative Education Review*, 60(4), 644–672.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

Kumi-Yeboah, A. (2014). Transformative learning experiences of international graduate students from Africa. *Journal of International Students*, 12(1), 25–53.
<https://doi.org/10.1177/1541344614538120>

Lee, J. S. (2017). Challenges of International Students in a Japanese University: Ethnographic Perspectives. *Journal of International Students*, 7(1), 73–93.

Lin, L., & Cranton, P. (2005). From scholarship student to responsible scholar: a transformative process. *Teaching in Higher Education*, 10(4), 447–459.

Loerke, M. (2018). What’s next? Facilitating post-study transitions. In J. Dassin, R. Marsh, &

M. Mawer (Eds.), *International scholarships in higher education* (pp. 187–207). New York, NY: Palgrave Macmillan.

Loo, B. (2017). Mongolia : Higher Education and Mobility. *International Higher Education: A Quarterly Publication*, 89, <https://doi.org/10.6017/ihe.2017.89.9841>

Macgregor, G. (1957). *The Experiences of American Scholars in Countries of the Near East and South Asia: Report on the Problems of Selection, Planning and Personal Adjustment of Americans in the Fulbright Programs with Egypt, India and Iraq*. National Academies.

Makundi, H., Huyse, H., Develtere, P., Mongula, B., & Rutashobya, L. (2017). Training abroad and technological capacity building: Analysing the role of Chinese training and scholarship programmes for Tanzanians. *International Journal of Educational Development*, 57(July 2016), 11–20. <https://doi.org/10.1016/j.ijedudev.2017.08.012>

Marsh, R., Baxter, A., Di Genova, L., Jamison, A., & Madden, M. (2016). *Career Choices, Return Paths and Social Contributions: The African Alumni Project. Full Report*. Toronto, Ca. Retrieved from <http://www.mastercardfdn.org/beyond-brain-drain/>

Marsh, R., & Uwaifo Oyelere, R. (2018). Global migration of talent: {Drain}, gain and transnational impacts. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 209–234). New York, NY: Palgrave Macmillan.

Martel, M. (2018). Tracing the spark that lights a flame: A review of methodologies to measure the outcomes of international scholarships. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in higher education* (pp. 281–304). New York, NY: Palgrave Macmillan. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-62734-2_14

Mawer, M. (2014a). *A Study of Research Methodology Used in Evaluations of International Scholarship Schemes for Higher Education*. Retrieved from <http://cscuk.dfid.gov.uk/2014/06/a-study-of-research-methodology-used-in-evaluations-of-international-scholarship-schemes-for-higher-education/>

Mawer, M. (2014b). *Trajectories and impact of UK Commonwealth Scholarship and Fellowship Programme alumni: Interim quantitative analysis*. London.

Mawer, M. (2017). Approaches to Analyzing the Outcomes of International Scholarship Programs for Higher Education. *Journal of Studies in International Education*, 21(3), 230–245. <https://doi.org/10.1177/1028315316687009>

Mawer, M. (2018). Magnitudes of impact: A three-level review of evidence from scholarship evaluation. In J. Dassin, R. Marsh, & M. Mawer (Eds.), *International scholarships in*

higher education (pp. 257–280). New York, NY: Palgrave Macmillan. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-62734-2_13

Mawer, M., Quraishi, S., & Day, R. (2016). *Successes and complexities: the outcomes of UK Commonwealth Scholarships 1960-2012*. London.

McMahon, W. W. (1999). Education and development: Measuring the social benefits. New York, New York: Oxford University Press.

McMahon, W. W. (2009). *Higher learning, greater good: The private and social benefits of higher education*. Baltimore, Maryland: The Johns Hopkins University Press.

MECSS. (2017). *Scholarships for study abroad*. <https://mecss.gov.mn/category/50/> [July 7, 2017]

MECSS. (2018). Statistical Report of Higher Education Sector: 2017-2018 academic year. <https://mecss.gov.mn/news/728/>

Merriam, S. B. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly*, 60–68. <https://doi.org/10.1177/0741713604268891>

Mezirow, J. (1978). Perspective transformation. *Adult Education Quarterly*, 28(2), 100-110.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (1997). Transformative Learning: Theory to Practice. *New Directions for Adult and Continuing Education*, 74, 5–12.

MEXT. (2011). 「国費外国人留学生制度の成果・効果と改革の方向性」.[The outcome of government-sponsored foreign student scholarship scheme and direction for a reform]. Retrieved from http://www.mext.go.jp/a_menu/koutou/itaku/1307282.htm

MEXT. (2014). Report on advancing the establishment of sufficient housing for international students studying in Japan to realize the "300,000 international students plan". Retrieved from <http://www.mext.go.jp/en/news/topics/detail/1372648.htm>

MEXT. (2016a). 「留学生受け入れ支援方策の効果の検討に関する調査研究」.[Research regarding the consideration of the effectiveness of supporting policies for receiving international students]. Retrieved from http://www.mext.go.jp/component/a_menu/education/detail/_icsFiles/afieldfile/2016/06/02/1371462_01.pdf

MEXT. (2016b). 「高等教育機関における外国人留学生の受

入推進に関する有識者会議 審議経過報告」 [Progress report on the deliberation at the expert meeting regarding facilitation of acceptance of international students in higher education institutions]. Retrieved from

http://www.mext.go.jp/component/a_menu/education/detail/_icsFiles/afieldfile/2017/02/23/1367875_001.pdf

MEXT. (2010). Outline of the student exchange system: Study in Japan and abroad.
http://www.mext.go.jp/component/english/_icsFiles/afieldfile/2011/12/14/1303740_1.pdf

Morgan, D. L. (1998). Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research*, 3, 362-376.

Morgan D. L. (2007). Paradigms lost and pragmatism regained: methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*, 1(1), 48-76.

Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045-1053. <https://doi.org/10.1177/1077800413513733>

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40, 120-123.

Murphy-Shigematsu, S. (2002a). Psychological barriers for international students in Japan. *International Journal for the Advancement of Counselling*, 24(1), 19-30.
<https://doi.org/10.1023/A:1015076202649>

Murphy-Shigematsu, S. (2002b). Psychological struggles of Korean international students in Japan. *International Education Journal*, 3(5), 75-84.

Ninomiya, A., Knight, J., & Watanabe, A. (2009). The past, present, and future of internationalization in Japan. *Journal of Studies in International Education*, 13(2), 117-124.

NORRAG. (2011). The geopolitics of overseas scholarships & awards. Old and new providers, East & West, North & South. Retrieved from
<http://www.norrag.org/en/publications/policybriefs.html>

Norton, B. (2000). *Identity and language learning: Gender, ethnicity and educational change*. Harlow, England: Longman/Pearson Education.

Ota, H. (2003). The international student 100,000 plan: Policy studies. *Hitotsubashi Journal of the International Student Center*, 6, 27-51.

Paige, R. M., Fry, G. W., Stallman, E. M., Josić, J., & Jon, J. E. (2009). Study abroad for global engagement: the long-term impact of mobility experiences. *Intercultural Education*, 20, 29-44.

Pan, S. Y. (2011). Education abroad, human capital development, and national competitiveness: China's brain gain strategies. *Frontiers of Education in China*, 6(1), 106-138. Retrieved from: <https://doi.org/10.1007/s11516-011-0124-4>

Perna, L., Orosz, K., & Jumakulov, Z. (2015). Understanding the human capital benefits of a government-funded international scholarship program: An exploration of Kazakhstan's Bolashak program. *International Journal of Educational Development*, 40, 85–97. <https://doi.org/10.1016/j.ijedudev.2014.12.003>

Perna, L. W., Orosz, K., Gopaul, B., Jumakulov, Z., Ashirbekov, A., & Kishkentayeva, M. (2014). Promoting human capital development: A typology of international scholarship programs in higher education. *Educational Researcher*, 43(2), 63–73. <https://doi.org/10.3102/0013189X14521863>

Pietsch, T. (2011). Many Rhodes: travelling scholarships and imperial citizenship in the British academic world, 1880–1940. *History of Education*, 40(6), 723–739. Retrieved from <https://doi.org/10.1080/0046760X.2011.594096>

Piketty, T. (2014). *Capital in the twenty-first century*. Trans. Arthur Goldhammer. Cambridge, MA: Belknap Press of Harvard University Press.

Prokofiev, M., Chilikin, M., & Tulpanov, S. (1961). *Higher Education in the USSR*. Retrieved from <http://unesdoc.unesco.org/images/0000/000013/001300eo.pdf>

Sato, Y. (2005). A case of policy evaluation utilizing a logical framework: Evaluation of Japan's foreign student policy towards Thailand. *Evaluation*, 11(3), 351–378. <https://doi.org/10.1177/1356389005058483>

Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51, 1–17.

Schultz, T. W. (1981). *Investing in people: The economics of population equality*. Los Angeles, California: University of California Press.

Schutz, A. (1967). *The phenomenology of the social world*. Northwestern University Press.

Schwantes, R. (1955). *Japanese and Americans, a century of cultural relations*. New York: Harper and Brothers for the Council on Foreign Relations.

Sen, A. (2000). *Development as freedom*. New York: Anchor Books.

Sen, A. (2009). *The idea of justice*. London: Penguin.

Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research.

Journal of Mixed Methods Research, 10(4), 319–334. Retrieved from
<https://doi.org/10.1177/1558689815575861>

Silova, I., & Steiner-Khamsi, G. (2008). How NGOs react. *How NGOs react: Globalization & education reform in the Caucasus, Central Asia & Mongolia*, 1–41.

Simic-Yamashita, M., & Tanaka, T. (2010). Exploratory factor analysis of the sociocultural adaptation scale (SeAS) among international students in Japan. *Graduate School of Socio-Cultural Study, Okayama University, 3(29)*, 27–38.

Sims, M., & Nishida, Y. (2018). Short-term international experience (stie) and students' understanding of quality early childhood service provision. *Journal of Education and Learning, 7(2)*, 21–33. Retrieved from <https://doi.org/10.5539/jel.v7n2p21>

Spilimbergo, A. (2009). Democracy and foreign education. *American Economic Review, 99(1)*, 528–543. <https://doi.org/10.1257/aer.99.1.528>

Statistical Office of Mongolia. (2001). *Statistics of Mongolia-2000.* (Mongol ulcyn statistikin emhtgel 2000.) Ulaanbaatar: USG, 207-208.

Statistical Office of Mongolia. (2017). Information on herders. <https://tinyurl.com/ya7tyzk6>

Stevens-Long, J, Schapiro, S, & McClintock, C. (2012). Passionate Scholars: Transformative learning in doctoral education. *Adult Education Quarterly, 62*(December), 180–198.
<https://doi.org/10.1177/0741713611402046>

Stone, G. A. (2014). Study abroad as a transformative experience: Measuring transformative learning phases and outcomes.

Strömbom, M. (1989). Evaluation of fellowships awarded to developing countries: What do the stories tell? *Higher Education, 18(6)*, 707-724.

Sweetland, S. R. (1996). Human capital theory: Foundations of a field of inquiry. *Review of Educational Research, 66(3)*, 341-359.

Tamaoka, K., Ninomiya, A., & Nakaya, A. (2003). What makes international students satisfied with a Japanese university? *Asia Pacific Education Review, 4(2)*, 119–128.
<https://doi.org/10.1007/BF03025354>

Tan, E. (2014). Human capital theory: A holistic criticism. *Review of Educational Research, 84(3)*, 411–445. <https://doi.org/10.3102/0034654314532696>

Tansel, A., & Demet Güngör, N. (2003). “Brain drain” from Turkey: Survey evidence of student non-return. *Career Development International, 8(2)*, 52–69.
<https://doi.org/10.1108/13620430310465453>

Taylor, E. W. (1998). Transformative learning theory—an overview. *The Theory and Practice of Transformative Learning: A Critical Review, 374*, 5–20. Retrieved from

http://www.calpro-online.org/eric/docs/taylor/taylor_02.pdf

Taylor, E. W., & Cranton, P. (2012). *The handbook of transformative learning: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.

Taylor, K. B., & Elias, D. (2012). Transformative learning: A developmental perspective. In E. W. Taylor & P. Cranton (Eds.), *The handbook of transformative learning: Theory, research, and practice* (pp. 147-161). San Francisco, CA: Jossey-Bass.

Teferra, D. (2005). Brain circulation: Unparalleled opportunities, underlying challenges, and outmoded presumptions. *Journal of Studies in International Education*, 9(3), 229–250.

Tisdell, E. J. (2012). Themes and variations of transformational learning: Interdisciplinary perspectives on forms that transform. In E. W. Taylor & P. Cranton (Eds.), *The handbook of transformative learning: Theory, research and practice*, 21-35.

Tremblay, K. (2005). Academic mobility and immigration. *Journal of Studies in International Education*, 9(3), 196–228. <https://doi.org/10.1177/1028315305277618>

Trilokekar, R., & Kukar, P. (2011). Disorienting experiences during study abroad: Reflections of pre-service teacher candidates. *Teaching and Teacher Education*, 27(7), 1141-1150.

Tsuneyoshi, R. (2005). Internationalization strategies in Japan: The dilemmas and possibilities of study abroad programs using English. *Journal of Research in International Education*, 4, 65-86. <http://dx.doi.org/10.1177/1475240905050291>

Udo, B. (2008). Mongol-Yaponi hariltsaa (1990-1998): Mongol oron dayarchlal ba buschleliin zavtsart. In B. Udo (Ed.), *Orchin cagin Mongol-yin tuhai uguulleguud* (pp. 123–148). Ulaanbaatar.

UIS. (2018). *Outbound mobility ratio* [dataset]. Retrieved from: www.uis.unesco.org/education/Pages/international-student-flow-viz.aspx

Umakoshi, T. (1997). Internationalization of Japanese higher education in the 1980's and early 1990's. *Higher Education*, 34, 259-273.

UNDP Mongolia. (2017). United Nations Development Assistance Framework 2017-2021. <http://www.mn.undp.org/content/mongolia/en/home/library/UNDAFMongolia2017-2021.html>

UNESCO. (2018). *Global education monitoring report 2019. Migration, displacement and education*. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000265866_eng

United Nations. (2015a). Goal 4: Ensure inclusive and quality education for all and promote lifelong learning. <http://www.un.org/sustainabledevelopment/education/>

United Nations. (2015b). *EFA global monitoring report*. <http://unesdoc.unesco.org/images/0023/002322/232205e.pdf>

Uyeki, E. (1993). *As others see us: A comparison of Japanese and American Fulbrighters*. Tokyo: Institute of International Education.

van der Wende, M. (2010). Internationalization of higher education. *International Encyclopedia of Education (Third Edition)*, 1(2), 540–545.
<https://doi.org/http://dx.doi.org/10.1016/B978-0-08-044894-7.00836-8>

Vanichakorn, N. (2006). Application of international education: How would skills and knowledge learned abroad work back home? ยินดีต้อนรับสู่วารสารฯ, 1(2), 49–53.
http://tci-thaijo.org/index.php/jit_journal/article/view/4002

Varghese, N. V. (2008). Globalization of higher education and cross-border student mobility. *Research Papers IIEP*, 1–33. https://doi.org/10.1007/978-3-642-36708-3_2

Ward, C., & Kennedy, A. (2001). Coping with cross-cultural transition. *Journal of Cross-Cultural Psychology*, 32(5), 636–642. <https://doi.org/10.1177/0022022101032005007>

Watanabe, S., Sato, M., and Murasawa, M. (2018). State initiatives on globalizing higher education in Japan. In G. Noblit (Eds.) *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.208>

Webb, S. (2009). *Australian scholarships in Cambodia: Tracer study and evaluation*. Canberra: AusAID.

Wilson, I. (2015). Exchanges and peacemaking: Counterfactuals and unexplored possibilities. *All Azimuth*, 4(2), 5–18.

World Bank. (2016). Country and lending groups [data set].
<http://data.worldbank.org/about/country-classifications/country-and-lending-groups>

World Bank Institute. (2007). *Joint Japan/World Bank Graduate Scholarship Program - Tracer Study VII 2007*. Retrieved from http://siteresources.worldbank.org/INTWBISFP/Resources/551491-1108589837615/tracer_studies7.pdf

Yamada, S. (2013). Japanese educational aid in transition: Between the aid coordination and unique model. *Asian Education and Development Studies*, 3(1), 76–94.
<https://doi.org/10.1108/AEDS-03-2013-0019>

Yamada, S. (2016). Asian regionality and post-2015 consultation: Donors' self-images and the discourse. In Yamada.S., (Ed.) *Post-Education-For all and Sustainable Development Paradigm: Structural Changes with Diversifying Actors and Norms (International Perspectives on Education and Society, Volume 29)* (pp. 143-209). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-367920140000029015>

Yamada, S., & Yoshida, K. (2016). Japanese educational aid in transition: The challenge to transform from a traditional donor to a new partner. In Yamada.S., (Ed.) *Post-education-for all and sustainable development paradigm: Structural changes with diversifying actors and norms*, 213–240. <https://doi.org/10.1108/S1479-3679201629>

Yokota, M., Ota, H., Yonezawa, A., Kitamura, Y., Akiba. H.,...Kondo. Y., (2016). *Survey of global personnel development and long-term impact of study abroad--Summary report.* <http://hdl.handle.net/10086/29015>

Yoshida, A. (2015). Internationalization and quality of higher education in Japan, presented at the 2015 Academic Conference on Higher Education in East Asia.

Zha, Q., & Wang, D. (2018). Case study: The Chinese government scholarship program--the brain development scheme that illuminates a vision across 30 years. In J. Dassin, R. Marsh, & M. Mawer (Eds.) *International scholarships in higher education* (pp. 235–254). New York, NY: Palgrave Macmillan.

Zhao, C. M., Kuh, G. D., & Carini, R. M. (2005). A comparison of international student and American student engagement in effective educational practices. *The Journal of Higher Education*, 76(2), 209-231.

Zhou, X. (1991). Japan's official development assistance program: Pressures to expand. *Asian Survey*, 31(4), 341-350.

APPENDIX A. Strategic plan to recruit highly skilled international students for the growth and competition of Japan

MEXT working meeting report. 高等教育機関における外国人留学生の受入推進に関する有識者会議 審議経過報告 (2016).

世界の成長を取り込むための外国人留学生の受け戦略（概要）

基本的な考え方

平成25年12月18日戦略的な留学生交流の推進に関する検討会

- 世界的な留学生獲得競争が激化する中、教育研究の向上や国家間の友好関係の強化に継続して取り組むことに加え、
諸外国の成長を我が国に取り込み、我が国の更なる発展を図るために、重点を置くべき分野や地域及び具体的な
戦略を図るため、これまでの諸外国地域の人材育成や、パートナーシップ構築等の戦略的な取組に加え、我が国の大学等への留学を奨励・促進させるために、重点を置くべき分野や地域及び具体的な
対応方針を本戦略において策定。
- 2020年東京オリンピック・パラリンピック競技大会の開催を契機に、スポーツや文化等、我が国の魅力の積極的な海外発信に果たす外国人留学生の役割も重要。

戦略の在り方

外国人留学生受け戦略の成果が十分に期待できる重点分野

工学	医療
電気、資源、エネルギー、建築等の開発分野から防災、環境保全まで幅広く貢献できる	医療人材の育成による諸外国の医療水準の向上への貢献、ODA等により我が国が設立した病院等医療施設の運営に寄与。
社会科学 (法制制度)	農学
民法、商法等社会基礎を形成する実学的分野を中心には、諸外国の法整備等に寄与することにより、現地のみならず我が国の企業の現地進出等に有益。	

我が国の発展に特に寄与すると考えられる重点地域及び今後の対応方針

対応方針

- ・ASEANは我が国との人的交流が最も活発な地域であるとともに、将来的にも、日系企業の進出も盛んになる地域であることから、各国の状況を考慮しつつ、教育の質を確保する仕組みを構築し、量的拡大を図る。
- ・我が国への留学の魅力や我が国の大企業等の優れた点について集中的に広報し、留学生の受け入れを促進する。
- ・地域の広さだけでなく、我が国から地理的に近く、親日派、知日派の多い地域であるラテンアメリカを中心とした極東地域からの留学生の受け入れについても促進する。
- ・アフリカは、サハラ以南アフリカだけでなく、我が国から地理的に離れた東アフリカ、南アフリカ等の主要な成長が期待できる一方、治安や病気等の不安が大きい地域である。今後、アフリカからの留学生を増やすに当たっては、アフリカ各との関係で得られる成果を頭に置きつつ、良好な事例を創出し、我が国の大企業等に情報を周知することで、留学生の受け入れを促進する。
- ・我が国への留学の魅力や我が国との国際化を促進するため、留学生の受け入れを促進する。
- ・中東各國への留学の優れた点について集中的に広報し、留学生の受け入れを促進する。
- ・企業の進出拠点が多く形成されるインドを中心として、在外公館や我が国の関係機関と連携し、我が国への留学の魅力や我が国の大学等の優れた点について集中的に広報し、留学生の受け入れを促進する。
- ・東アジアの中でも、我が国との関係が強く親日国であり、資源確保の観点からも関係を強化することが重要なモンゴルを中心として、留学生の受け入れを促進する。
- ・南米は、我が国との高い技術に対する関心が高く、我が国にとっても、資源の確保と質の高い人材の受け入れが重要であることから、主に工学及び農学分野の留学生の受け入れを促進する。
- ・学事務の委託化や大学間交流協定の締結促進により、短期の留学生の受け入れを中心し、受け入れ数を増加させる。
- ・政府間の声明を踏まえた人との交流の強化を図る。

具体的方策

- 留学コーディネーターの配置などによる戦略的な外国人留学生の受け入れ
- 留学金の充実と運用改善（戦略枠の設定等）
- 外国語で単位や学位が取得できる環境の整備促進
- 地域ご連携した外国人留学生の生活支援
- 我が国で学修した外国人留学生への対応

「留学生30万人計画」の実現を図るため、従来のODA的な考え方から脱却し、
我が国の更なる発展を目的とした戦略による「攻め」の留学生受け入れに取り組む。



世界の成長を取り込むための外国人留学生の受け戦略（報告書）http://www.mext.go.jp/a_menu/koutou/ryugaku/1342726.htm

APPENDIX B. Information sheet for interview

Information Sheet for Possible Interview Participation

Thank you for your consideration to participate in this study conducted by Ariunaa Enkhtur, PhD student from Graduate School of Human Sciences, Osaka University, Japan. This form presents the aim of this study, a description of the involvement required and your rights as a participant.

The purpose of this study is:

- To understand the experiences of Mongolian graduate students and alumni who studied in Japan through government (Japanese or Mongolian) funded scholarship programs, regarding their learning process in Japan, and their perception regarding their role to their home country development, and explore how they understand the benefits or the disadvantages of the programs/studies in Japan.

The benefits of the research will be:

- To understand the outcome of government scholarship programs to study in Japan from students' perspectives
- To present the scholars' voices to policy makers, international educators, researchers, and faculties both in Mongolia and Japan
- Contribute to the literature of comparative and international education, adult education, and learning
- To promote further understanding of Mongolian students and alumni, their contribution to Mongolia, and the value of Japanese university education among public
- To produce recommendations on possible support or policies to integrate alumni in their home country development

The methods to be employed are:

- Surveys:
 - o One with current students regarding their experience
 - o One with alumni regarding the after graduation trajectory
- One-on-one individual interviews
- The interview will last about one hour

Confidentiality: All information collected will be used solely for the purpose of this research. Participants' personal information will be kept confidential.

Should you have any questions, comments, or feedbacks, feel free to contact Ms. Ariunaa, the doctoral student and her supervisor, Prof. Yamamoto Beverley at Osaka University, Japan:

PhD candidate
Graduate School of Human Sciences
Osaka University
Tel: 080-6965-6398 (Japan); 88934823
(Mongolia)
Email: u765918c@ecs.osaka-u.ac.jp

Thesis Supervisor
Prof. Beverley Yamamoto
Professor
Graduate School of Human Sciences
Osaka University
Tel: 06-6879-4035
Email: bevyamamoto@hus.osaka-u.ac.jp

Thank you very much for your consideration.

(Mongolian version)

“Японд магистр, докторын зэргээр сурч төгссөн Монголчууд”

докторантурын судалгааны танилцуулга

Зорилго:

Энэхүү судалгаа нь Японд (Монголын болон Японы) засгийн газрын тэтгэлгээр сурч таар хувь хүний түвшинд гарсан үр дүн, үр нөлөөг судлах зорилготой. Төгсөгчдийн бодлоор Японд суралцсан явдал нь хувь хүний хувьд (үнэлэмж, үзэл баримтлал, юмыг харах өнцөг) болон гэр бүл, ажил, амьдралд хэрхэн нөлөөлж (эерэг болон сөрөг) буй талаар судлах бөгөөд Японд сурч төгссөн хүний хувьд Монголын нийгэм эдийн засгийн хөгжилд ямар хувь нэмэр оруулах боломжтой болон нийгэмдээ ямар үүрэг хүлээдэг талаар судлах явдал юм.

Энэхүү судалгаа нь үндсэн хоёр хэсгээс бүрдэнэ. Эхний хэсэг нь чөлөөт ярилцлага ба хоёр дахь хэсэгт төгсөгчдийн яриан дээрээс үндэслэн асуулгын судалгаа боловсруулан авах болно. Эхний хэсэг буюу ярилцлагын хэсэгт Монгол, Япон болон гуравдагч улсад ажиллаж амьдарч байгаа төгсөгчдөөс ярилцлага авах бөгөөд гол агуулга нь төгсөгчид Японд суралцсан туршлагаа хэрхэн үнэлдэг, суралцах хугацаандаа олж авсан үнэт зүйлс болон гадагшаа явснаар ямар боломж алдсан, сурсан мэдсэн зүйлс нь ажил, амьдралд ямар ач холбогдолтой байна, эх орондоо хувь нэмэр оруулахад ямар саад бэрхшээл тулгардаг талаар судлах юм.

Ач холбогдол:

- Японд сурч төгссөний үр дүн, ач холбогдлыг хоёр улсын боловсролын салбарын холбогдох эрх баригчид, бодлого боловсруулагчид болон боловсролын солилцооны хөтөлбөр зохион байгуулагчдад танилцуулах
- Төгсөгчдөө хэрхэн дэмжих, сурсан мэдлэг туршлагааг нь үр дүнтэйгээр ашиглах тухай зөвлөмж гаргах
- Дээд боловсрол, олон улсын боловсрол болон өөрчлөн шинэчлэлтийн онолын /Transformative Learning Theory/ судалгаанд хувь нэмэр оруулах
- Японы дээд боловсролын ач холбогдол, төгсөгчдийн нийгэмд оруулж буй хувь нэмрийн тухай ойлголтыг олон нийтэд хүргэх
- Японд төгсөгчдөд туршлага, санал бодлоо хуваалцах боломж олгох зэрэг орно.

Судалгааны арга:

- Ганцаарчилсан чөлөөт ярилцлага /semi structured interview/
- Асуулгын анкет

APPENDIX C. Consent form

Informed Consent for Participation in Interview Study

I volunteer to participate in a research study conducted by Ariunaa Enkhtur, PhD student from Osaka University, Japan. I understand that the study is designed to gather information about my experience of studying in Japan.

1. My participation in this study is voluntary. I understand that I will not be paid for my participation.
2. I may withdraw and discontinue participation at any time without penalty.
3. I have rights to skip any questions
4. The interview will last about one hour.
5. The interview will be audio recorded. Notes will be written during the interview.
6. My personal information will be kept confidential.
7. Pseudonym name will be used to protect my confidentiality; and only that pseudonym name will be used in any reports using information obtained from this interview.
8. Subsequent uses of records and data will be subject to the Ethical Codes of Graduate School of Human Sciences, Osaka University and the Australian Association for Research in Education standard data use policies.
9. I have read and understand the explanation provided to me.
10. I have been given a copy of this consent form.

Participant's Signature

Ariunaa Enkhtur
The Principle Investigator

Participant's Name

For further information, please contact Ms. Ariunaa Enkhtur or her supervisor at following addresses.

PhD candidate
Ariunaa Enkhtur
Graduate School of Human Sciences
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Email: u765918c@ecs.osaka-u.ac.jp

Thesis Supervisor
Prof. Beverley Yamamoto
Professor
Graduate School of Human Sciences
Osaka University
Tel: 06-6879-4035
Email: bevyamamoto@hus.osaka-u.ac.jp

(The consent form in Mongolian)

**“Японд магистр, докторын зэргээр сурч төгссөн Монголчууд”
докторантурын судалгаанд оролцох зөвшөөрлийн бичиг**

Миний бие Японд төгссөн Монголчуудын тухай энэхүү судалгаанд сайн дураараа оролцохыг зөвшөөрч доорхи заалтуудтай танилцсан болно.

1. Би энэхүү судалгаанд сайн дурын үндсэн дээр оролцож байгаа бөгөөд энэхүү судалгаанд оролцсоноор ямар нэгэн төлбөр хөлс авахгүй.
2. Би энэхүү судалгаанаас хэзээ ч гарах эрхтэй бөгөөд гарсан тохиолдолд ямар нэгэн шийтгэл хүлээхгүй.
3. Би ямар нэгэн асуултанд хариулахгүй, алгасахыг хүсэх эрхтэй.
4. Ярилцлага 1 цаг орчим үргэлжлэнэ.
5. Ярилцлагыг дуут хураагуурт бичих бөгөөд ярилцлын үед тэмдэглэл хөтлөнө.
6. Миний хувийн мэдээллийн нууцлалыг чандлан хадгална.
7. Надад нууц нэр /pseudonym/ олгох бөгөөд миний яриаг судалгаанд хэрэглэхдээ зөвхөн тус нууц нэрийг дурьдана.
8. Миний хувийн мэдээллийн нууцыг хадгалах болон мэдээллийг ашиглахдаа Осакагийн их сургуулийн ёс зүйн заавар, олон улсын боловсролын судалгааны ёсзүйн стандартыг дагана.
9. Судлаач эдгээр заалтуудыг надад тайлбарлаж өгсөн болно.
10. Энэхүү зөвшөөрлийн бичгийг 2 хувь үйлдэн, 1 хувийг надад олгосон болно.

Оролцгчийн нэр

Гарын үсэг

Судлаачийн нэр

Гарын үсэг

Холбоо барих хаяг:

Үндсэн судлаач
Э.Ариунаа
Докторантурын оюутан
Осакагийн их сургууль
Нийгэм, хүмүүнлэгийн ухааны сургууль
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88934823 (Монгол)
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Удирдагч багш
Др. Бевэрли Ямамото
Профессор
Осакагийн их сургууль
Нийгэм, хүмүүнлэгийн ухааны сургууль
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APPENDIX D. Interview schedule

Interview schedule

Interview schedule

Opening questions

- 1) Let's first start with the motivations that led you to studying in Japan. Can you share what some of the motivations you had when you first decided to apply to MEXT scholarship to study in Japan?
 - a) Can you briefly tell me about the selection process? How rigorous was the competition?
 - b) Once you found out that you received the scholarship, did you have a specific vision in mind for your future?

Part one: Learning experience in Japan

- 2) I'd like to ask how you view of your experience as a Mongolian [Kokuhi, JDS, Mongolian Government] scholarship student in Japan.
 - a) What does it mean to be a [scholarship program] recipient in Japan?
- 3) When you look back to those years of being a graduate student in Japan, was there any moment when you questioned your way of acting such as making decisions?
- 4) In what ways did your experience in Japan challenge your previous perspectives about yourself, your community, and the world if there are any?
- 5) How have your perspectives (your view towards the world and yourself, your assumptions) changed as a result of the scholarship experience in Japan? Can you think of any factors that influenced this change?
- 6) What are some of the learning experiences that you value most when you look back?

Part two. Post-scholarship experience

- 7) When you returned to Mongolia [if applicable], what was your impression?
 - a) Do you remember any of your impressions about what needed to be changed?
 - b) How did you act on that impression?
- 8) Immediately after your graduation/return to Mongolia, what did you do? Continue your studies? Find employment?
 - a) What were some of the main factors that influenced your decision? [to continue studies in other country, look for jobs in government]
 - b) What do you think has the greatest impact on the decisions and behaviours of alumni of scholarship programs?
- 9) You talked about your learning experience in Japan. Has your learning experience impacted your life in some other way that you would like to share with me?
 - a) How about your career and job perspectives?
 - b) Your family?
 - c) Your community?

Part three: How did your learning experience in Japan shape the way in which you contribute to economic and social development in Mongolia?

- 10) How do you perceive your role in economic development activities? Can you give an example? Before you answer let me clarify what I mean by economic development. [read out] "Economic development is a set of actions made by individuals – citizens and policymakers—that leads to progress in the economy and general improvement in living standards. It includes increased productivity by the workforce, reduction of unemployment, innovation and new technologies, and financial investments to a country, including remittances from abroad".
 - a) Using this guide, how do you view perceive your role in economic development in Mongolia?
 - b) What about for other scholarship alumni? How do you perceive their role in economic development activities? Can you give an example?

11) Now, how do you perceive your role in social development activities? Social development can mean, “a set of changes in society that is focused on the social, emotional, and personal development of the individuals within the society, believed to be moving towards ‘progress.’ It includes increased attention and support for all people in the society—especially those at the margins—and often addresses issues of education, human rights, and health services. It may also include issues that support the general wellbeing of individuals, such as environmental concerns, animal rights, or cultural promotion”.

- a) Using this guide, how do you view perceive your role in social development in Mongolia?
- b) What about for other scholarship alumni? How do you perceive their role in social development activities? Can you give an example?

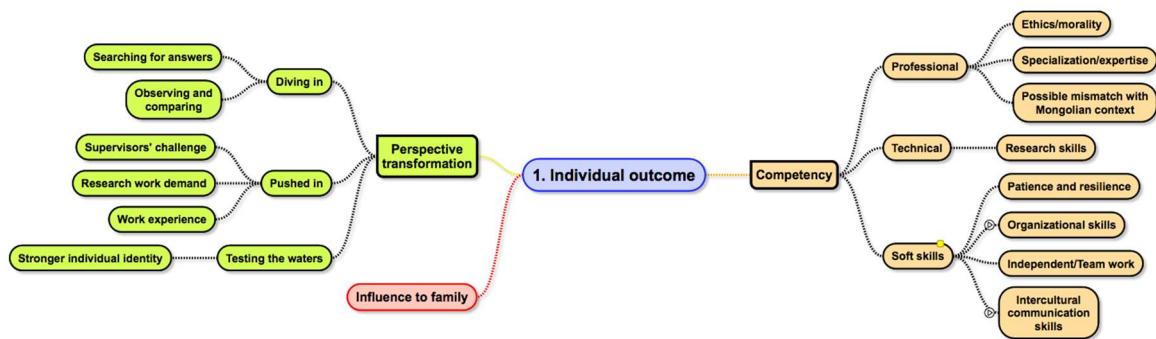
12) Do you think individuals who received scholarship to study in Japan have responsibility to contribute to socioeconomic development in Mongolia? Why? Why not?

13) What do you think have helped scholarship alumni—you and others—to contribute in a positive way to the social and economic development of Mongolia?

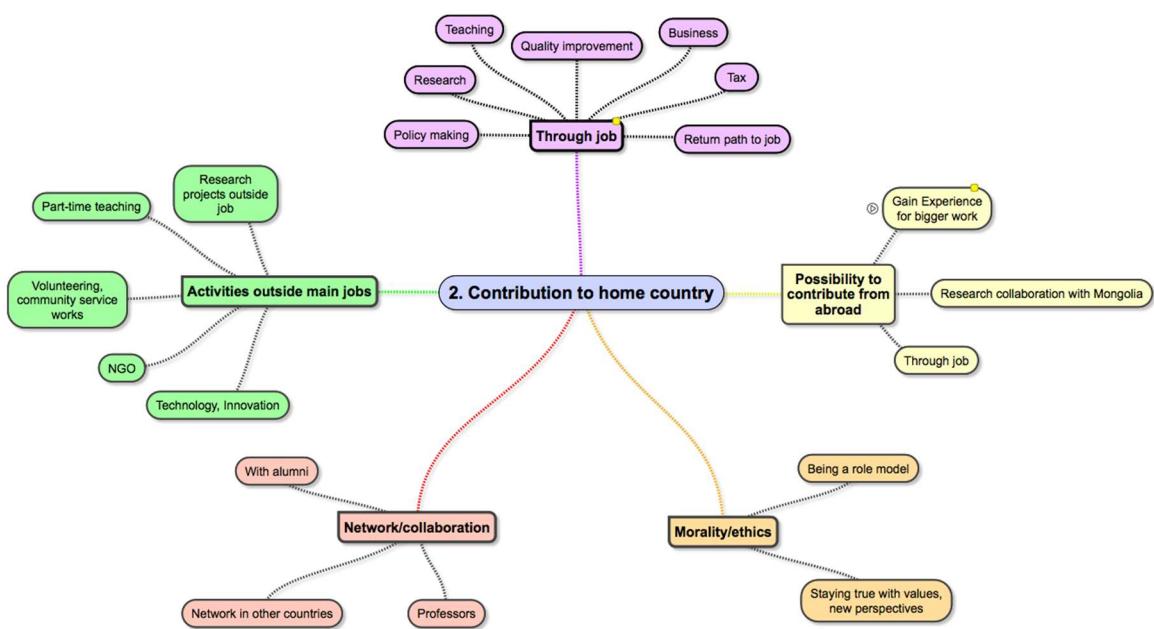
14) What do you think have hindered or limited scholarship alumni—you and others—to contribute in a positive way to the social and economic development of Mongolia?

APPENDIX E. Mind-map of qualitative analysis

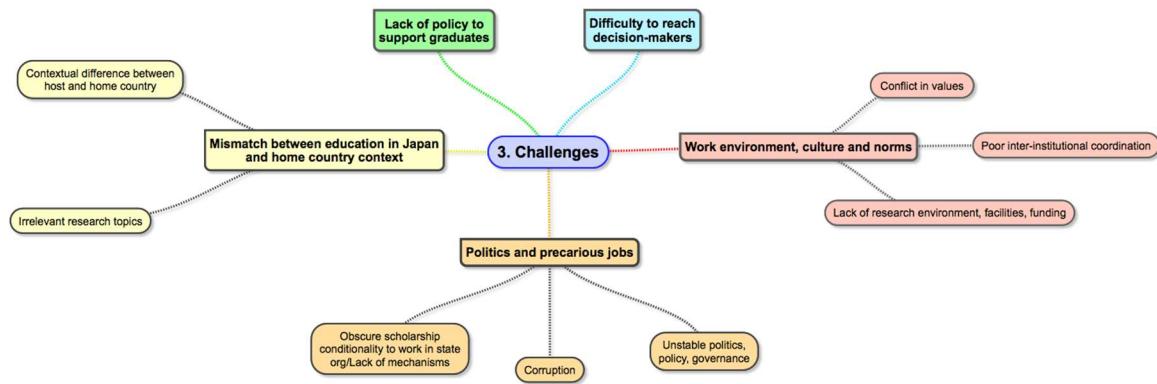
Mind-map of Themes and Sub-themes from first phase study, qualitative study



1. "Individual level outcome: Learning experience in Japan" Mind-Map



2. "Contribution to home country" Mind-Map



3. Challenges to applying knowledge and skills for the home country

APPENDIX F. Online questionnaire

Survey to investigate after graduation situation of Mongolian Graduates from Japanese Universities with Master's and Doctoral Degrees

Thank you for your consideration to take part in this study. The purpose of this survey is to explore how alumni of government scholarship programs (Japanese and Mongolian governments) that sponsor Mongolian students to study in Japan view the outcome of their education in Japan, particularly their role in home country development. This study is part of doctoral thesis research of Ms. Ariunaa ENKHTUR at Graduate School of Human Sciences, Osaka University. The main goal of her overall study is to understand how alumni of these government sponsored flagship scholarship programs make meaning of their experience in Japan both during their studies and after graduation.

Your response to this survey will be anonymous and all personal information will be confidential. If you agree to participate in this study, please complete the following survey. Should you have any questions, please contact Ms. Ariunaa at ariuneb@gmail.com or 080-6965-6398; or her supervisor, Prof. Yamamoto Beverley at bevyamamoto@hus.osaka-u.ac.jp.

(Please note that part of the interview questions are adopted from recent study supported by MEXT (2016) that was administered in 2011–2012. 国費留学生制度の成果の分析 p. 170–174
http://www.mext.go.jp/a_menu/koutou/itaku/_icsFiles/afieldfile/2011/06/16/1307282_4.pdf)

1. Please select the country where you are currently living (dropdown list of countries)

2 Please select your age

- 20–25
- 26–30
- 31–35
- 36–40
- 41–45
- 46–50
- 51 or above

3. Gender

- Male
- Female

4. Please select the scholarship (program) you received to study in Japan

- Japanese Government Scholarship Programs (Monbusho scholarship)
- Mongolian Government Scholarship Programs
- JICE–JDS scholarship program

5. What degree did you receive under the scholarship program?

- Master's degree
- Doctoral degree

6. Please select the area you majored in as scholarship student

1. Arts and Humanities
2. Social sciences
3. Natural Science
4. Engineering

5. Agriculture
6. Medicine/health science/dentistry
7. Education

7. How would you evaluate your experience in Japan? Please select all that apply (check all that apply)

1. I was able to carry out research at a high level
2. I developed soft skills (for example, organizational skills)
3. I understood my own background as a Mongolian person
4. I made many Japanese friends
5. The teaching quality was very good
6. I came to like Japan and Japanese people
7. I was able to expand my horizons
8. I would like to encourage others to study in Japan

8. Thinking about your educational experiences in Japanese Graduate Universities, check off any statements that may apply.

- a. I had an experience that caused me to question the way I normally act (for example, the way I made decisions before coming to Japan).
- b. I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)
- c. As I question my ideas, I realized I no longer agreed with my previous beliefs or role expectations.
- d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
- e. I realized that other people studying in Japan like me also questioned their beliefs.
- f. I thought about acting in a different way from my usual beliefs and roles.
- g. I felt uncomfortable with traditional social expectations.
- h. I tried out new roles so that I would become more comfortable or confident in them.
- i. I tried to figure out a way to adopt these new ways of acting.
- j. I gathered the information I needed to adopt these new ways of acting.
- k. I began to think about the reactions and feedback from my new behaviors.
- l. I took action and adopted these new ways of acting.
- m. I do not identify with any of the statements above.

9. Please take a moment to reflect on your experience in Japan. During your study in Japan, do you believe you experienced a time when you realized that your values, beliefs, opinions, or expectations had changed? (If you checked 'm' on question 8, your response should be 'no' on this question)

- Yes. *If "yes," please go to question #10 and continue the survey*
- No. *If "no," please go to question #11 and continue the survey*

10. Which of the following influenced this change? (Check all that apply)

- It was a person who influenced the change (please specify in 10.1.)
- Learning activities at university influenced the change (please specify in 10.2.)
- Out of class learning activities influenced the change (please specify in 10.3)
- Sociocultural factors of Japan influenced the change (please specify in 10.4)

- Working experience in Japan influenced the change (please specify in 10.5)

10.1. If you selected “It was a person who influenced”, please check all that applies from below

- Your supervisor/faculty member
- Senpai at university
- Your classmate/labmate
- Mongolian community in Japan
- Family members

10.2. If you selected “it was learning activities at university”, please check all that applies

- Assignments from class, seminar
- Research process
- Discussions during class/seminar
- Critical thinking
- Class projects
- Personal self-reflection essay
- Lab experiments
- Others_ (Please describe)? _____

10.3. If you selected “it was out of classroom activities”, please check all that applies.

- Orientation program
- Japanese language course
- Seminar retreats
- Activities organized in dormitory
- Events organized for international students
- Meetings and other events organized by scholarship program
- Participating in conferences and seminars

10.4. If you selected, “Sociocultural factors of Japan”, please check all that applies

- Attending cultural events
- Communicating with ordinary Japanese citizens
- Volunteering
- Discussion with foreigners in Japan (outside school)
- Observing how Japanese people’s way of living and working
- Support from community

10.5. If you selected, “work experience in Japan”, please check all that applies

- Part time job
- Internships
- Full time job
- Trainings related to job

11. How long is it since you completed your studies in Japan?

- Less than 5 years
- 5–9 years
- 10–15 years
- 16–20 years

- More than 21 years

12. Were you able return to your previous position after return?

- Yes. I did return to my previous position at my institution
- I was promoted to higher position
- I was demoted to lower position
- I could not return to my previous position
- I did not want to return to my previous position

13. Which of the below best describes your current employment status?

- University lecturer, researcher
- Researcher at an institute other than a university
- Teacher at a primary or secondary school
- Representative of national or local government
- Administrative staff at a government organization
- Managing a private company (inc. self-employed)
- Working for a private company
- Student
- Unemployed (incl. housewife and job seeker)
- Other. Please specify

14. Please give your employer's name as well as your current position (OPTIONAL) (e.g. Director, International Trade Division, ABC Company). If you are a student, please give the name of the educational institution and your level of study (Doctoral student, ABC University Graduate School of Engineering).

15. Since you completed your period of study in Japan, have you been involved in any kind of activity or research relating to Japan (incl. Japanese language or Japanese culture)?

8. Collaborated with Japanese researchers
9. Encouraged other people to study in Japan
10. Accepted researchers or students from Japan
11. Carried out research relating to Japan
12. Worked at a Japanese company or university
13. Did a job relating to Japan
14. Worked in an international environment
15. Worked in a government in your home country
16. Employed in an international organization
17. Made presentations about your experience in Japan
18. Involved in Japanese culture activities
19. Continued to study Japanese
20. Other
21. Have NOT been involved in activities of this kind

16. How useful do you feel what you learnt in Japan has been to you? Select one answer.

1. Very useful
2. Somewhat useful
3. Neutral

4. Not particularly useful
5. Not useful at all

16a. For those who answered very useful, or useful, please check all that applies. 'strongly agree, agree, neutral, disagree, strongly disagree' (likert scale)

1. Conducted research building on what I learnt
2. Applied my knowledge and skills in Mongolia
3. Set up a business making use of what I learnt
4. Has been useful in my job
5. Made useful personal connections in Japan
6. Remained in contact with teachers/advisors
7. Used the Japanese language skills acquired
8. Helped me to get a well-paid job
9. Motivated me to make changes in Mongolia
10. Motivated me to actively take part in Mongolian socioeconomic development

17. Do you view that YOU are contributing to the Mongolian socioeconomic development as a result of receiving graduate degree in Japan?

- Yes
- No

17a. If yes, please check the all areas that applies from the following list.

- Health care service and system
- Economic growth
- Quality of education and service
- Environment and animals
- Spreading democratic values and human rights
- Decreasing inequality and poverty
- Decreasing crimes
- Decreasing unemployment
- Introducing new technologies to Mongolia
- Improving social ethics and morality
- Enforcing laws and regulations
- Other

18. In what ways do you see yourself contributing?

- Volunteering
- Through job
- By participating in activities organized by alumni association, unions
- By organizing (or participating in) activities towards community
- Through private business
- By modeling to others through personal ethics and morality
- By teaching besides to my full time job
- By conducting research and projects besides my full time job
- Other

19. Have you faced any challenges in applying your knowledge and skills in Mongolia? If yes, please select all that applies (likert scale: Strongly agree, agree, neutral, disagree, strongly disagree)

- It is difficult to find jobs in Mongolia in my professional field
- Lack of government policy on human resources to reintegrate alumni in the job market in Mongolia
- Lack of opportunity to share my knowledge and expertise at decision making level
- Lack of environment to apply my knowledge and skills

20. What policy support do you think is needed for alumni to efficiently apply their knowledge and expertise in Mongolia? (Likert scale: Strongly agree, agree, neutral, disagree, strongly disagree)

- Government policy on human resources management
- Activate alumni networks and implement collaborative projects
- Strengthen database on graduates
- Distribute job information to graduates

21. Are you part of any alumni associations in Mongolia?

- Yes (please answer Question 22)
- No (please go on to Question 23)

22. If yes, how often do you participate in the activities?

- Very often
- Often
- Sometimes
- Almost never
- Never

23. What activities do you wish the Alumni Association should organize?

Thank you very much for completing this survey.

You are invited to take part in follow up interview

We would like to invite some of you to participate in the follow-up interview to elaborate on your opinion regarding alumni's learning experience in Japan, skills and knowledge you have built and your perceived role in home country development. The interview will last for 45 minutes to 1 hour.

Please leave your email address, if you are willing to participate in the interview.

Thank you very much for taking part in the study. We will inform the preliminary results of the findings at JUGAMO (Japanese Graduates Association in Mongolia) in 2018.

APPENDIX G. Permission to use LAS

Gmail - Request for permission adapt LAS for PhD research in Japan

2018/05/18 11:37



Ariunaa Enkhtur <ariuneb@gmail.com>

Request for permission adapt LAS for PhD research in Japan

Kathy (Kathleen) King <Kathleen.King@ucf.edu>
To: Ariunaa Enkhtur <ariuneb@gmail.com>

Sat, Jul 1, 2017 at 7:39 AM

Hi Ariunaa,
I think you misunderstand copyright. I hold the copyright. **You** cannot obtain the copyright.

You may have my *permission* to use it in your study.

I see no problem using it the way you are mentioning .

Please send me the complete citation of your dissertation for my records

Btw did you know I have a new book just published by jossey bass publishers? You might find it also helpful. Here is a link to it, which provides a discount code! <http://bit.ly/King2017>

Best wishes in your research endeavors...kpk
[Quoted text hidden]

APPENDIX H. Permission to use MEXT (2011) survey questions

Gmail - An inquiry regarding kokuhi student evaluation study

2018/05/18 11:39



Ariunaa Enkhtur <ariuneb@gmail.com>

An inquiry regarding kokuhi student evaluation study

Hiroshi Ota <h.ota@r.hit-u.ac.jp>
To: Ariunaa Enkhtur <ariuneb@gmail.com>

Wed, Aug 16, 2017 at 7:04 PM

Dear Ariunaa,

Sorry for not replying to your mail sooner.

1. I wanted to clarify my previous request regarding your research on MEXT students. I did not mean to ask the raw data but I was wondering if it is possible to see the graphs by countries--Mongolia, in my case, instead of regions. I'm interested in only post graduation trajectory.

I am afraid that I do not have such data and graphs anymore. We did not analyze the data by country much.

2. If it's not possible, I wonder if I can adopt the survey questions that the research team used to follow up with the alumni. I wanted to ask some of the similar questions such as alumni's perception regarding usefulness of their education in Japan, and how MEXT scholarship is regarded in the home country.

Do you mean that questions in the survey questionnaires on page 165 through page 174 in the PDF file below? If so, we would be fine that you adopt those questions of our survey to your own survey as long as you acknowledge it as a citation.

http://www.mext.go.jp/a_menu/koutou/itaku/_icsFiles/afielddfile/2011/06/16/1307282_4.pdf

With best wishes,

Hiroshi Ota

[Quoted text hidden]

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Hiroshi Ota, Ph.D.

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APPENDIX I. Ethics Committee Decision

共生学系・研究倫理審査通知書

Decision by the Research Ethics Committee of Kyosei Studies,
Graduate School of Human Sciences, Osaka University

2016年 6月 23日
(year) / (month) / (day)

登録番号 Registration Number : OUKS1605

申請者氏名 Applicant's Name :

Enkhtur Ariunaa

申請者所属・職名 Applicant's Position & Affiliation:

Critical Studies for Transformative Education

研究課題名 Research Title:

Mongolian University Students in Japan: Applying a Concept of Transformative Learning to Understand the Experiences and Outcomes of Studying Abroad

上記の研究課題について、2016年 6月 23日に開催された研究倫理委員会による
審査の結果、承認いたしましたので通知します。

Based on the review meeting held on 23 June, 2016,
the Research Ethics Committee approves the above research.

大阪大学大学院 人間科学研究科 共生学系
研究倫理委員会 委員長
中村安秀

Prof. Yasuhide Nakamura, MD, Ph.D
Chairperson,
Research Ethics Committee of Kyosei Studies,
Graduate School of Human Sciences, Osaka University