



Title	Bringing knowledge home: Agency and organizational climate in returnees' contributions to Mongolian higher education
Author(s)	Enkhtur, Ariunaa; Enkhtur, Oyundelger; Davaajav, Narantogtokh et al.
Citation	International Journal of Educational Research. 2025, 133, p. 102732
Version Type	VoR
URL	https://hdl.handle.net/11094/102860
rights	This article is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.
Note	

The University of Osaka Institutional Knowledge Archive : OUKA

<https://ir.library.osaka-u.ac.jp/>

The University of Osaka



Bringing knowledge home: Agency and organizational climate in returnees' contributions to Mongolian higher education

Ariunaa Enkhtur^{a,*}, Oyundelger Enkhtur^c, Narantogtokh Davaajav^{d,f},
Sainbayar Gundsambuu^{b,e}

^a Institute for International Initiatives, The University of Osaka, Japan

^b International College, The University of Osaka, Japan

^c School of Arts and Sciences, National University of Mongolia, Mongolia

^d School of Food, Light Industry and Design, Mongolian University of Science and Technology, Mongolia

^e Mongolian National University of Education, Mongolia

^f Faculty of Fiber Science and Engineering, Kyoto Institute of Technology, Matsugasaki Sakyo-ku Kyoto 606-8585 Japan

ARTICLE INFO

Keywords:

International education
STEM higher education
Faculty mobility
Returnee integration
Organizational climate
Faculty agency
Transformative learning

ABSTRACT

This study examines the contributions of internationally educated STEM graduates sent from and returned to higher education institutions in developing contexts, highlighting their integration and impact within these organizational environments. Using qualitative data collected in multiple phases between 2017 and 2023, it explores the dynamics of individual agency, institutional support, and structural barriers faced by returnees. Drawing on interviews and surveys with 26 unique participants—including 19 MJEED graduates and 7 academic leaders across two Mongolian universities—the study demonstrates that although graduates experience significant professional transformation during their studies abroad, their ability to effectively apply newly acquired knowledge is often constrained by rigid organizational climates, misaligned roles, and limited resources. Nonetheless, returnees proactively leveraged their international networks and formed alliances to advance research and curriculum development. This study highlights the need for higher education institutions to adopt flexible employment practices and foster supportive organizational climates to maximize the potential of internationally educated scholars. In doing so, it uniquely contributes to ongoing scholarly conversations on international education, STEM capacity-building, and addressing institutional inequities in higher education.

1. Introduction

Governments in low- and middle-income countries often employ international higher education scholarships as a strategic tool to develop a skilled workforce capable of driving national and organizational development. These scholarships provide top talents access to advanced educational systems, state-of-the-art technologies, and globally recognized institutions (Campbell & Neff, 2020; Dassin & Navarette, 2018; Perna & Jumakulov, 2015). The underlying expectation is that scholarship recipients will acquire valuable knowledge, establish international professional networks (Amazan, 2014; Campbell, 2016), and return to their home countries to foster progress in their institutions and societies (Jonbekova et al., 2023; Wang et al., 2024). Concurrently, host countries and universities

* Corresponding author.

E-mail address: enkhtur.ariunaa.cgin@osaka-u.ac.jp (A. Enkhtur).

benefit from attracting highly skilled international students, strengthening international partnerships, and advancing political and academic collaborations (Barker, 2022; Hilal, 2013).

However, despite these optimistic expectations, the effective integration and practical application of internationally gained knowledge within home institutions are far from guaranteed. Structural barriers, rigid employment systems, and resource limitations often undermine the potential impact of returnees, particularly in developing regions (Tharenou & Seet, 2014; Chu et al., 2024). While substantial literature highlights the transformative personal and professional growth resulting from international exposure and intense learning environment (Kumi-Yeboah & James, 2014), less research has addressed how organizational environments shape returnees' capabilities to effectively apply these transformations (Hao & Welch, 2012; Shen et al., 2023). This gap is particularly evident in discussions about the Global South, where higher education institutions (HEIs) face unique constraints in leveraging the expertise of internationally educated graduates (Kayashima et al., 2024).

Mongolia provides a particularly illustrative context for examining this issue. Positioned between Russia and China, Mongolia has increasingly broadened its academic mobility beyond these immediate neighbors to cultivate a globally competent workforce. Since transitioning to democracy in 1990, international education and academic mobility have played a central role in Mongolia's higher education strategy, with initiatives aimed at strengthening institutions, improving academic programs, and enhancing university governance (Asian Development Bank ADB, 2011; HERP, n.d). More recently, the Mongolian government has prioritized the development of research universities as part of its broader strategy for national development agenda (Tamir et al., 2024). Key goals of this initiative include improving research capacity, fostering international academic collaborations, and securing funding for research initiatives (MoE, Ministry of Education and Science 2024). Nevertheless, significant gaps persist, particularly as less than the 39 % of Mongolian university faculty hold doctoral degrees (MoE, 2024), highlighting the critical need to enhance institutional capacity through international education opportunities.

The Mongolian Engineering Higher Education Development (MJEED) Project, launched in 2014 and funded by Japan's Official Development Assistance (ODA) provides a unique and valuable case study. The MJEED program aims to modernize engineering education at the National University of Mongolia (NUM) and the Mongolian University of Science and Technology (MUST). Unlike broader international scholarship programs that often feature general or governmental placements, the MJEED program specifically targets placements within university departments, aiming to modernize engineering education at the National University of Mongolia (NUM) and the Mongolian University of Science and Technology (MUST). This structured placement is designed to ensure that graduates directly contribute to curriculum enhancement, research capacity, and teaching excellence at their respective universities (MJEED n.d).

Despite Japan's extensive investments in ODA aimed at human resource development and technology transfer (Yamada, 2016), limited research examines how graduates reintegrate and apply their international education in their home countries. A global study on Japanese government scholarship graduates found that many in East and Southeast Asia considered their Japanese education highly relevant to their professional work (MEXT, 2011). However, it remains unclear how these graduates navigate institutional constraints and apply their knowledge in home contexts, particularly in the Global South.

This study explicitly addresses this research gap by examining how internationally educated graduates from the MJEED program integrate within their home university departments and contribute to the institutional development in Mongolia. Using a multi-phase qualitative research design conducted between 2017 and 2023, the study explores the interplay between individual agency, institutional support, and structural constraints. It uniquely focuses on graduates' specific job placements, allowing an in-depth examination of the conditions necessary for effective translation of individual educational gains into organizational improvements.

Findings underscore the dual importance of individual agency and supportive institutional climates in leveraging the potential of returnees. While many graduates develop innovative research practices and expand global networks, their impact is often constrained by structural barriers such as misaligned roles, bureaucratic hurdles, and limited resources. However, those who actively build alliances and utilize international networks are better positioned to overcome these challenges. These insights have significant implications for policymakers, university leaders, and scholarship providers aiming to optimize the outcomes of international education.

Specifically, this study makes a distinctive contribution to the literature on international scholarships by focusing explicitly on STEM international education and the structured work-placement model employed upon graduation—an approach rarely explored in existing scholarship research. By examining the experiences of graduates from the Mongolian-Japanese Engineering Higher Education Development (MJEED) program, this study highlights how designated work placements impact the translation of international educational gains into organizational development. The following section situates this study within the broader historical and institutional context of Mongolia's higher education system, introducing the MJEED program model.

2. The context

Like many former Soviet countries, during the Soviet era (1921-1990), Mongolia sent its elites and professionals to the Soviet Union and other communist countries for advanced education. Following the transition to democracy in 1990, Mongolia's international education landscape diversified significantly, with increasing numbers of students pursuing degrees in countries such as China, South Korea, Japan, and the United States. Despite these developments, comprehensive data on study-abroad students and their long-term outcomes remain limited, leaving a critical gap in understanding how these graduates contribute to national development.

While a large number of Mongolian students studied in the Soviet Union between 1921 and 1990s (Tenhunen, 2025), between 1999-2018 in average 20 % of Mongolian students studied in China (Kwak & Chankseliani, 2023). Both Russia and China provide government scholarships to Mongolian students. Since the 2000s, South Korea has also become a significant destination, particularly due to strong economic and labor relationships, attracting Mongolian students primarily in vocational and technology-related fields.

However, despite over 20 different intergovernmental scholarship programs available, none offer a structured, systematic approach comparable to Japan's Mongolian-Japanese Engineering Higher Education Development (MJEED) program.

Japan, though geographically less immediate compared to Russia and China, has become a critical funder and partner in Mongolia's higher education, particularly in STEM fields. As of 2023, 3453 Mongolian students were studying in Japan, with more than 250 enrolled in doctoral programs with a notable proportion pursuing degrees in STEM disciplines (Embassy of Mongolia in Japan, 2023). Japan's involvement, prominently through initiatives like the MJEED program, stems from broader diplomatic and development cooperation goals aimed at strengthening Mongolia's technological and educational capacities. Unlike typical scholarship arrangements, the MJEED program uniquely integrates student sponsorship with institutional capacity-building, explicitly targeting the development of Mongolian higher education institutions.

To address these reintegration challenges and enhance higher education capacity, the Mongolian government launched the MJEED program in 2014. This initiative targets advancement of engineering education at the National University of Mongolia (NUM) and the Mongolian University of Science and Technology (MUST) by fostering joint research, upgrading laboratories, and sending junior researchers to Japan for graduate degrees. Funded through an ODA loan from the Japanese government with reduced interest, the program uniquely selected and funded 20 university projects, providing essential laboratory equipment and support for local team assistantships (JICA, 2014). The prospective graduate students are nominated by the universities and are paired with Japanese institutions primarily through research projects established by Mongolian university departments, facilitated by project leaders or previous scholars.

All degrees pursued under the MJEED program are primarily conducted in English, with approximately 5 % completed in Japanese. Students also receive Japanese language training and complete the Japanese Language Proficiency Test (JLPT) (MJEED, n.d.). During their studies, participants engage in rigorous academic programs, professional skill-building, and community-oriented activities such as industry visits. These experiences are designed to equip graduates with advanced research and teaching skills, professional networks, and broadened perspectives on education and research (See Fig. 1).

Upon completion of their degrees, grantees are contractually required to return to Mongolia and work at their home institutions for at least five years, with real estate collateral deposits enforcing this commitment. This structured return pathway aims to ensure that graduates contribute to research, teaching, and curriculum development, addressing the critical need for highly qualified faculty in Mongolian HEIs. As of early 2024, 91 grantees have graduated, with 85 actively employed in Mongolian universities.

The MJEED program aligns with Mongolia's broader ambitions to enhance its higher education system. Efforts to establish research universities, improve research capacity, and align with international standards have been central to the government's strategy. For example, the Government of Mongolia's 2016–2020 project sought to elevate four state-owned universities into Asia's top 200 institutions. Although this goal remains unmet, the emphasis on research-based teaching, university-industry partnerships, and international collaborations continues to shape the higher education landscape (Gundsambuu, 2019). The MJEED program exemplifies this vision, addressing critical gaps in faculty qualifications and research infrastructure while fostering global academic connections.

These efforts reflect a broader recognition that international collaborations are vital for addressing structural challenges in higher education, particularly in developing contexts. By equipping graduates with the tools and networks to navigate and transform their institutional environments, the MJEED program offers valuable insights into the role of targeted scholarship initiatives in advancing higher education development.

3. Literature review

International higher education scholarships are recognized as critical tools for fostering development in home countries by facilitating human capital development. Campbell & Neff (2020) identified six main rationales for international scholarships: 1) skills and human capital development, 2) diplomatic relations, 3) social change, 4) sustainable development, 5) university internationalization, and 6) expanded access to higher education. Among these, government scholarship programs in the Global South

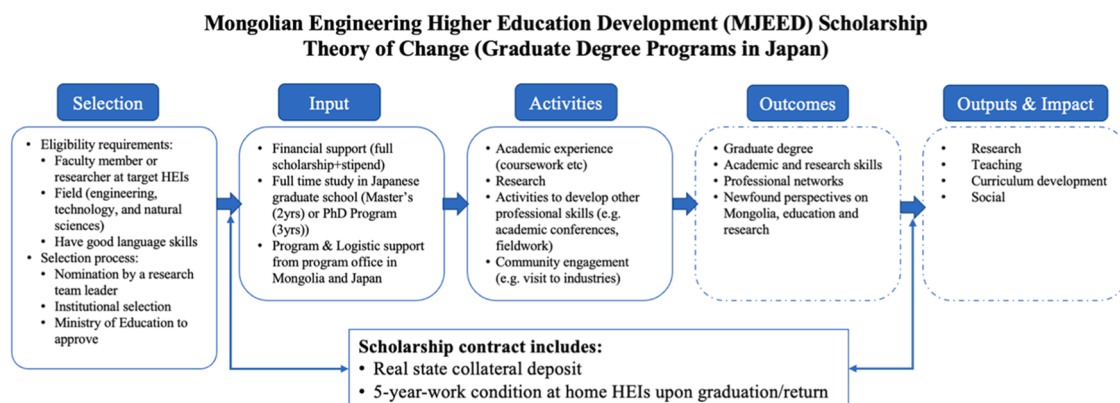


Fig. 1. MJEED scholarship program logic model.

predominantly aim at developing human capital and skills, particularly in STEM disciplines closely tied to national economic advancement strategies (Perna et al., 2014; British Council, 2014).

The individual impact of study abroad is well-documented, highlighting its influence on graduates' personal and professional trajectories (Collins et al., 2017; Holloway & Jöns, 2012), their perspective transformations, and the expansion of social networks (Amazan, 2014). Beyond individual gains, there is growing recognition of broader organizational impacts (Wang et al., 2024). Lopez-Murillo (2023) documented that Mexican government scholarship recipients contributed to their home institutions by enhancing research capabilities, introducing advanced technologies, and establishing top-tier laboratory conditions that elevated institutional performance. Returnees contribute significantly to institutional capacity-building by transferring advanced knowledge, research skills, and innovative pedagogical practices, as demonstrated by China's Thousand Talent Program (Hao & Welch, 2012). In Southeast Asia, rapid massification and internationalization of higher education have accentuated the transformative role of returnees within their home institutions. Initiatives such as the ASEAN University Network foster cross-border collaborations, integrate international perspectives into curricula, and strengthen academic programs (Neubauer and Ho, 2024). Returnees in this region frequently strengthen research and teaching capacities by promoting international networks and applying best practices acquired abroad (Kayashima & Asada, 2024). These organizational contributions underscore the importance of supportive institutional frameworks for maximizing the benefits of returnees' international training (Wang et al., 2024).

Beyond the organizational level, international education also generates significant societal impacts. Paige et al. (2009) found that returnees often show increased civic engagement, higher rate of voluntary work, and a stronger inclination towards social entrepreneurship. Chankseliani & Kwak (2025) highlight that international student mobility significantly influences broader societal development goals, including poverty reduction, economic growth, and international diplomacy, although these outcomes are highly dependent on the effective organizational integration of returnees. Campbell and Baxter (2019) found that alumni networks in Mongolia, Ghana, and Georgia evolved into critical platforms for mobilizing collective action for social change. Dassin et al. (2018) emphasize the importance of structured social networks among alumni, noting their potential to catalyze positive social change through collective action. However, Campbell and Baxter (2019) also highlight that organizational sustainability, autonomy, and clear goals significantly influence the effectiveness of these networks in achieving sustained social change.

Literature also emphasizes the reintegration challenges that hinder returnees' potential contributions, particularly in contexts of rigid institutional structures and cultural resistance (Chu et al., 2024; Tharenou & Seet, 2014). Kwak & Chankseliani (2023) and Chankseliani and Kwak (2025) underscore through their series of research the complexity of reintegration, noting barriers like resistance to innovation and infrastructural deficits which limit the effective utilization of returnees' expertise. Similarly, Kenney et al. (2013) argue that returnee contributions often require pre-existing local structures and supportive policies to realize their potential in stimulating high-tech industries. Dai & Liu (2009) emphasized that tailored support systems and conducive organizational climates can facilitate the reintegration of returnees, enabling them to bridge international expertise with local needs.

In Mongolia, returnees' contributions address critical gaps in higher education and research capacity. Mongolian alumni from government-sponsored scholarships, exhibit strong motivation to contribute to national development and engage proactively in community and institutional improvement (Enkhtur, 2019). However, systemic challenges, including unsupportive work environments and limited professional growth opportunities persist (Enkhtur, 2020). A 2016 survey conducted by the Ulaanbaatar City Youth Development Center (2016), involving 700 study abroad returnees, highlighted key issues such as low salaries, bureaucratic inefficiencies, poor working conditions, limited job opportunities, systemic corruption, inadequate institutional support, and negative perceptions toward foreign-educated graduates. Alarming, only 54 % of respondents secured employment in their respective fields of study, with notably higher unemployment among women.

Recent amendments to higher education law have redefined the role of research and innovation within universities. The 2023 amendments introduced the term "research university" and emphasized the societal contributions of higher education, with provisions for government funding to advance research aligned with national priorities (Law on Higher Education, 2023). Furthermore, a joint statement by six national universities Mongolian National University of Medical Sciences (2022) mandated international journal publications as a criterion for academic advancement, highlighting an intensified focus on international competitiveness (MUST, n.d.). These developments underscore the renewed significance of returnees' contributions.

While scholarship programs often assume that returnees' mere presence in home countries will ensure the application of their new knowledge and skills (Dassin & Navarrete, 2018), success in reintegration frequently depends on the organizational and structural conditions they face. Institutional support, access to resources, and opportunities for collaboration are pivotal in enabling returnees to use their international education for local innovation. Although existing studies affirm the vital role of returnees in strengthening institutional capacity, research, and innovation in their home countries (Wang et al., 2024), significant gaps remain in understanding how university placements of returnees, particularly in STEM academic mobility, influence graduates to effectively leverage their training upon return. This study draws from multiple theoretical perspectives, to examine how Mongolian-Japanese Engineering Higher Education Development (MJEED) graduates navigate organizational climates and employ individual transformed perspectives and agency to enhance engineering higher education development in Mongolia.

4. Theoretical framework

This study applies several theoretical frameworks to examine how international education influences graduates' contributions to their home institutions. Transformative Learning, Human Capital, Agency, and Organizational Climate theories provide a comprehensive lens for understanding how graduates navigate and impact the organizational environments they re-enter.

Mezirow's Transformative Learning Theory (1991) suggests that adult learners experience significant cognitive and perceptual

shifts when exposed to new, challenging situations like studying abroad. Through critical reflection, dialogue, and experimentation, individuals can reassess and reconstruct assumptions, developing perspectives that enable them to make informed, socially conscious contributions upon their return. Graduate-level international education often serves as a “disorienting dilemma,” prompting this transformation and allowing individuals to critically evaluate prior beliefs and values (Glisczinski, 2007). This transformative process equips returnees with new approaches to address local challenges and foster innovation within their institutions, as Kumi-Yeboah & James (2014) have shown. The personal and professional growth gained abroad thus forms the basis for meaningful contributions to home institutions.

Many government-sponsored scholarship programs are grounded in Human Capital Theory, as introduced by Schutz (1967) and later expanded by Becker (1993). This theory views education as an investment that enhances individuals’ productivity and societal value (McMahon, 2009). For international scholarship programs, the assumption is that students who acquire advanced knowledge and skills abroad will return with increased capacity to drive national and institutional development (Perna et al., 2014). Human capital theory thus provides a rationale for expecting graduates to leverage their technical expertise in enhancing organizational performance and advancing research and teaching practices in their home contexts. In this study, the theory underscores how international graduate education builds technical and intellectual capacity, allowing individuals to make significant contributions to higher education institutions upon return.

Agency, as conceptualized by Emirbayer and Mische (1998), is critical in understanding the capacity of graduates to apply their international education within often restrictive organizational settings. Agency theory emphasizes the ability of individuals to act independently and exercise control over their choices despite broader social constraints. Graduates often encounter structural or institutional barriers; however, their agency allows them to find innovative ways to overcome obstacles and apply their skills. Studies such as Tran and Vu (2018) illustrate how international graduates exercise agency by resisting institutional limitations, forming networks, and creating alliances to enact change. This study explores how graduates use agency to navigate institutional constraints and make meaningful contributions within Mongolian higher education.

Organizational climate, defined by Ehrhart and Schneider (2016), refers to members’ collective interpretations of organizational events, practices, and behaviors, influencing how supportive or obstructive work settings can be. This climate significantly affects the success of returnees’ reintegration and contributions. Research highlights the impact of organizational climate on outcomes such as faculty retention (Verma and Kaur, 2024), burnout (Dinibutun et al., 2020), and knowledge management (Al-Kurdi et al., 2020). In academic contexts, factors like relationships and trust play pivotal roles, with positive climates fostering open communication, knowledge sharing, and collaboration (Hargreaves & Fullan, 2012), which support faculty productivity (Campbell & O’Meara, 2014). Mamiseishvili and Lee (2018) demonstrated that departmental climate affects international faculty satisfaction with decision-making autonomy, indicating the importance of supportive structures for reintegration.

A supportive organizational climate enables returnees to integrate their knowledge, innovate, and collaborate, while negative climates—characterized by bureaucratic hurdles, limited resources, and rigid structures—can stifle their contributions (Ndreka, 2021; Shen et al., 2023). For example, studies on Chinese returnees (Jiang, Mok, & Shen, 2020) show that balancing the demands of local norms with the standards of international academia requires careful navigation. However, limited research explores how organizational climate affects returnees specifically within developing country contexts, such as Mongolia’s higher education institutions.

5. Methodology

This study employs a qualitative research approach, with data collected through three distinct phases to explore MJEED graduates’ learning experiences in Japan, their reintegration into Mongolian HEIs, and leadership perspectives on their contributions (see Table 1) involving, 19 returnees and 7 leaders (26 unique participants) across two institutions. Collaborating with the MJEED program administrator, researchers distributed invitations to program participants and returnees. Table 2 presents the demographic information of participants across the three phases of data collection.

In Phase 1 (2017), the first author conducted a survey with 16 MJEED scholarship students while they were pursuing their graduate studies in Japan. This survey included open-ended questions such as, “How do you plan to utilize your knowledge and skills after you complete your program?” and focused on learning experiences, future plans, and perspective shifts. Sixteen students (10 males, 6 females), aged 20s-30 s, responded, providing initial insights into how they expected to apply their international education upon returning to Mongolia. Participants had diverse employment backgrounds, ranging from full-time faculty members to those without prior HEIs experience.

In Phase 2 (2021-2022), the first, third, and the fourth authors conducted semi-structured interviews with 11 returnees (4 males, 7

Table 1
Three phases of data collection.

Phase	Data Type	Participants	Year	Number of Participants	Note
Phase 1	Questionnaire with open-ended questions	MJEED Graduate students in Japan	2017	16	Questions focused on learning experiences, future plans, and shifts in perspective.
Phase 2	Semi-structured Interviews	MJEED Returnees	2021-2022	11	In-depth interviews exploring challenges and opportunities in applying skills in Mongolian HEIs.
Phase 3	Semi-structured Interviews	Faculty in leadership positions	2023	7	Interviews with deans and research leaders supervising the graduates, focusing on institutional factors.

Table 2

Participants' demographic information.

Phase	Number of participants	Gender	Age Range	Program level/Degree	Position
Phase 1	16	Male: 10 Female: 6	20-25: 8 26-30: 4 31-35: 3 36-40: 1	Master's: 8 PhD: 8	(Prior to study abroad) Full-time faculty member/researcher: 11 Private sector: 2 No work experience: 2 Government agency: 1
Phase 2	11	Male: 4 Female: 7	20-25: 0 26-30: 5 31-35: 3 36-40: 3	Master's: 5 PhD: 6	Full-time faculty member: 4 Full-time researcher: 5 Part-time in HEI: 1 Do not work in HEI: 1
Phase 3	7	Male: 6 Female: 1	36-40: 1 41-45: 1 46-50: 2 51+: 3	PhD: 7	Senior administrator (Dean or department head): 2 Professor: 4 Associate professor: 1

females), aged 26-40, to explore their post-return experiences. Fifty percent of participants (3 male, 5 female) from the phase 1 participated in phase 2. The interviews explored organizational support, challenges in knowledge application, and reintegration dynamics within HEIs. The returnees had various academic positions, providing a rich qualitative dataset for understanding the complexities of transitioning back into Mongolian academic landscape.

In Phase 3 (2023), the first, second, and the third authors interviewed seven senior level faculty members (6 males, 1 female) who held supervisory roles over returnees. Aged 36-51+, all participants had doctoral degrees and occupied roles as deans, department heads, or professors. The interviews gathered insights into institutional expectations for the returning graduates, how returnees' international education was perceived and utilized within departments, and the challenges faced by both institutions and returnees in fostering knowledge transfer and research development.

Interview protocols and consent forms were shared with participants prior to the interviews, which were conducted individually via Zoom in Mongolian. Each session lasted between 60 to 90 minutes and was audio-recorded with consent. Reflective notes were recorded post-interview by researchers to capture observations, which were shared within the team for consistent analysis. Finally, all audio recordings were transcribed into text before analysis.

5.1. Data analysis

Data analysis employed a thematic approach, as defined by [Braun and Clarke \(2006\)](#), which involves identifying, analyzing, and reporting patterns within data. This study specifically utilized "latent level" thematic analysis, which examines underlying ideas and assumptions rather than merely surface-level content ([Braun & Clarke, 2006](#), p.13). This depth allowed for a comprehensive understanding of participants' meanings and intentions. NVivo software was used to organize the data, systematically coding and developing themes. The data from the three phases were triangulated to provide a holistic view of the graduates' progression from students in Japan to professionals in Mongolia. This triangulation, integrating both graduates' and supervisors' perspectives, added robustness and depth to the findings.

5.2. Ethical considerations

Ethical approval was obtained from the relevant institutional review boards, and all participants were informed of the study's purpose, providing written consent before participation. To ensure confidentiality, participant identities were anonymized, and pseudonyms are used throughout the study to protect their privacy.

5.3. Positionality

All authors are native Mongolian with study experience in Japan. All researchers except the first author were affiliated with the two national universities and had insider knowledge of institutional context. The third author, an alumna of the MJEED program, has actively engaged with other alumni by forming an alumni group to discuss shared challenges, limitations, and contributions within their institutions. In 2017, the first author conducted research on MJEED students in Japan as part of her doctoral research, initially approaching the third author as a participant. Following this initial interaction, the third author initiated collaboration on this study to illustrate returnees' experiences comprehensively. Recognizing these relationships allows for a deeper understanding of the context and interpretation of findings, though careful steps were taken throughout the study to minimize bias and accurately represent participants' perspectives.

6. Findings

6.1. Individual learning experiences in Japan and motivation to “give back”

During their graduate education in Japan, the MJEED grantees expressed a strong sense of duty to apply their new knowledge in Mongolia, aiming to enhance engineering education. Participants emphasized ambitions to “improve” engineering curricula, “introduce” or “localize” new technologies or research methods, and to “contribute” to preparing engineers and researchers in Mongolia to a “global standard”. This indicates a clear sense of responsibility to apply newly acquired knowledge for national development—a pattern consistent with the broader objectives of international capacity-building programs (Perna et al., 2014).

The learning experience in Japan provided both technical skills and exposure to advanced research environments. Notably, the MJEED program facilitated joint research projects between Mongolian and Japanese researchers, which not only strengthened individual research skills but also fostered bilateral academic collaboration. For instance, one grantee shared, “My supervisor asked me to study the airspace law and public policy because he knew that our work in Mongolia would involve not just research not also advocacy works and public awareness campaigns” (Taivan, senior lecturer). This illustrates how the program prepared graduates for practical, real-world applications of their education.

While most grantees experienced substantial growth, learning quality varied. A project leader at NUM, Saikhan said,

We cannot generalize returnees’ level of knowledge and skills. While some went through a challenging program and completed advanced research works, some grantees who went to a very rural university did not develop much international networks; many did not learn Japanese; thus, did not develop rich cultural understanding. And some barely graduated from their labs (Saikhan, project leader).

Despite these differences, a “perspective transformation” (Mezirow, 1991) was evident among the grantees, which involved a shift from traditional, hierarchical modes of learning toward more critical and flexible thinking, particularly regarding research methodologies and academic practices. Thirteen out of sixteen participants questioned their previously accepted “norms and values” regarding research and their field of studies, reflecting an intellectual shift often associated with immersive international education. One Master’s student remarked, “I’m learning how to hold an academic discussion with my lab members and the supervising professor. Before, I used to just accept the professor’s views, but now I understand that it’s best to think more flexibly.” A doctoral student echoed this change, stating, “I became more pragmatic towards any issue. For example, based on thinking thoroughly about the possible outcomes of my actions, such as experiments, I would act. In other words, I think more carefully before saying or doing anything.” These quotes illustrate a shift from a passive acceptance of authority to a more engaged and practical approach to learning, which participants later applied in their academic and professional work in Mongolia. This perspective transformation influenced not only their research approaches to research but also their interactions with students, and teaching methods. As Jargal, a lecturer, explained, “I listen to students and ask them to freely express their ideas, instead of just lecturing them”. This shift in pedagogical practice highlights the broad impact of their transformative experiences abroad.

6.2. Structural barriers to reintegration and integration

Upon returning to Mongolia, MJEED graduates encountered bureaucratic and structural obstacles that tested their capacity for individual agency. Although the binding contractual agreements guaranteed job placements at universities upon return, these agreements primarily benefited those who had held full-time faculty positions prior to studying abroad. For these individuals, the return to academic roles involved minimal friction, as senior lecturer Bolor recounted, “returning to work as a faculty member was very straightforward as I adhered to the contract requirement to complete my Ph.D. on time.” These returnees automatically advanced in their positions due to their PhD degrees. Misheel, senior lecturer said, “if you receive a PhD degree, regardless of where you completed it or your achievements, lecturers automatically advance to senior lecturers positions.”

However, graduates without pre-existing full-time roles faced substantial challenges and were compelled to actively exercise their agency to navigate reentry barriers. Dulam, for example, described significant bureaucratic hurdles: “I had to wait months to get back to work. There were a lot of faculty-level, university-level meetings that I had to go through. It felt like, despite having the agreement, they were not ready for me.” This sentiment was echoed by Tumor, who experienced a significant mismatch between his advanced qualifications and assigned role, stating, “The contract has no effect on employment. The employer does not bear any legal responsibility for properly employing the graduate. A technician’s job here does not require specialized knowledge.” Despite having PhD degree, Tumor was offered with a technician’s position, an entry level job an undergraduate degree holder that requires no specialized knowledge.

These examples highlight a significant gap between the institutional agreements and their actual implementation of these agreements. Many graduates expressed frustration at being offered positions suitable for by less-qualified candidates or that did not align with their expertise, significantly diminishing their professional motivation and satisfaction. Bold, a senior lecturer, reflected on this disconnect, stating, “It was crushing to feel that I was not valued at all for my research when they offered me a part-time job.” Returnees had various plans to update curricula, introduce new research seminars, initiate collaborative research projects, apply for patents, participate in international conferences. However, when limited by inappropriate job placements and lack of acknowledgements or incentives for their achievements during their study abroad, their ability to leverage their international experiences for institutional development was severely constrained, causing some graduates to lose motivation.

These mismatches underscore systemic deficiencies, limiting the effective use of human capital and diminishing graduates’

professional motivation and satisfaction. This disconnect between graduates' qualifications and their assigned roles highlights a critical gap in Mongolian higher education institutions' capacity to fully leverage substantial investments in human capital through international education programs.

6.3. Organizational climate: Fragmentation and institutional support

Generational and ideological divides within departments exacerbated the challenges faced by MJEED returnees. As Khulan, a researcher, noted significant departmental fragmentation, "There were lots of factions by whose team they belong, or whose student that person is." These divisions, often aligned by seniority and educational background, created a "Balkanized" environment (Hargreaves & Fullan, 2012) marked by insulated subgroups, which discouraged knowledge sharing and collaboration due to a lack of trust and shared values.

Departmental climate and collegiality were essential to job performance and satisfaction, yet many returnees encountered a politicized and unfriendly atmosphere. Pagva, an associate professor, described this hostility: "Last year when I got employed in the department, the senior faculty members...did not like it...And when I supervised one undergraduate student's thesis, they gave that student 0 [score] without asking anything." Tuvshin, a lecturer, similarly noted, "It has become part of the culture to treat your 'enemy's' students unfairly harshly." Such hostilities impacted both returnees and their students, as professionalism often often taking backseat to personal biases. Importantly, participants clarified that such hostility was not reflective of their doctoral experiences in Japan but rather was rooted in pre-existing local institutional dynamics, revealing longstanding internal challenges within Mongolian higher education institutions.

Conversely, supportive leadership and collegiality significantly enhanced returnees' ability to integrate and thrive, allowing them to join research projects or move up the positions within the department. Orkhon, a lecturer, highlighted the positive impact of supportive colleagues, "After working for one year as a lab technician, I became a teacher with the support of the department faculty." Bolor, a research institute director, also emphasized the crucial role of supportive leadership in fostering a welcoming climate, "The junior faculty members that went to Japan after me from our department all knew that I was expecting them to come back and work with me." Effective leaders in supportive departments were typically those who valued international education experiences, held positions enabling them to influence department policies, and were often alumni or had previously effectively collaborated with international scholars, thus deeply understanding returnees' potential contributions. Senior administrator Erdene elaborated on this point: "Leaders who had studied abroad themselves are particularly effective in fostering a supportive environment because they appreciated the difficulties of reintegration and actively facilitated opportunities for returnees."

Institutional reforms, including merit-based evaluation system that emphasizes research and publication further supported returnees. As former dean Od noted, "We now have evaluations for faculty members...This makes the research work more appealing and easier to be translated to promotion." This transition from the ambiguous post-Soviet model that lacked clear evaluations to more clear, point-based system enabled MJEED graduates to advance based on objective performance measures. Additionally, accreditation processes provided opportunities for returnees to influence curriculum development. Nomin, a graduate, commented, "The accreditation process...has allowed us to systematically review and update our curricula."

The MJEED program's start-up funds, which cover essential equipment costs and supporting temporary positions, also significantly facilitated returnees' professional contributions. Project leader Ider explained, "The funding...allowed us to get equipment and hire returnees, which kept our research projects going." Despite ongoing issues with bureaucracy and departmental politics, positive developments—structured evaluations, accreditation processes, and program funding—have created a more supportive environment for innovation and professional growth. By leveraging these opportunities, many graduates effectively applied their new knowledge and skills despite structural barriers.

6.4. Exercising agency amid organizational constraints

Despite structural limitations, some MJEED graduates proactively exercised their agency, strategically navigating challenges to realize their professional goals. The returnees took advantage of their individual skills institutional challenges and creating opportunities for professional advancement. These individuals were proactive in initiating new projects, leveraging international networks, and aligning their goals with the institutional priorities where possible. For example, Dulam, assigned as a lab assistant role, actively expanded her responsibilities, "I created the lab manual, managed the lab from scratch... I could have just done the lab assistant's work, but I actively joined various projects with other professors." Dulam's ability to leverage her role as a lab assistant to participate in research projects, publish academic work, and even secure a patent underscores the importance of individual agency in overcoming institutional limitations. Similarly, Taiwan described his efforts to open a new laboratory, despite institutional resistance, "We fought for a few years at different levels within and outside the university... Finally, we were able to open the lab, and we enrolled over 20 students this year."

Graduates also built alliances across departments to strengthen their positions within the university. Erkhem, a project leader, explained,

I was very wrong to start fighting back when I first came... I realized I needed allies, and I started forming professional networks across departments and institutions. This professional alliance helped us see the bigger vision and helped us to work together...when you have a professional alliance—an independent organization outside the university, you are much stronger and you can help your project move faster than following institutional bureaucracy (Erkhem, project leader).

Bolor, a research institute director within the university, similarly emphasized the value of collective agency, stating,

we made sure to bring back the faculties and together with them (other returnee colleagues), we were able to secure government funding, and we were able to expand the center to a research institute within the university (Bolor, institute director).

Graduates leveraged their international networks to introduce fresh perspectives and enhance collaboration. Connections with Japanese institutions facilitated joint projects, broadening the global reach of their home universities. Nasan, a senior lecturer, shared, "I was able to connect several professors with my lab in Japan, as well as Mongolian government agencies. Our collaborations with Japanese researchers brought new opportunities and resources, crucial for scaling up our work." These graduates used their networks not only to secure funding and resources but also to sustain research momentum. Those who maintained ties with their Japanese counterparts continued collaborative research, contributing to the internationalization of their home institutions.

7. Discussion

This study examined the experiences of MJEED graduates upon re-entering Mongolian higher education institutions (HEIs), providing insights into the interplay between individual agency, organizational structures, and systemic reforms in shaping the impact of international education. Consistent with existing literature, graduates acquired advanced skills, professional networks, and transformative perspectives through their international education experiences (Collins et al., 2017; Hanley et al., 2025; Holloway & Jöns, 2012). However, their ability to translate these into organizational contributions was significantly mediated by the structural and institutional environments they encountered upon their return.

Reflecting Mezirow's (1991) Transformative Learning Theory, MJEED graduates reported substantial shifts from hierarchical, authority-driven approaches toward reflective, flexible, and dialogical engagement. These shifts influenced their research methodologies, teaching practices, and professional collaborations, fostering more open communication and critical thinking cultures within their institutions. Nonetheless, these individual transformations were frequently constrained by rigid institutional structures, bureaucratic inefficiencies, and resource limitations. Similar constraints have been noted in other contexts within the Global South, highlighting a broader systemic challenge for internationally educated graduates attempting to integrate into their home institutions (Chu et al., 2023; Tharenou & Seet, 2014).

From the perspective of Human Capital Theory (Becker, 1993; Schutz, 1967), the MJEED program represents a substantial investment in Mongolia's academic and research capacities. However, the return on this investment depends significantly on organizational conditions that support or hinder graduates' reintegration and application of new skills. The findings clearly indicate that transparent recruitment processes, aligned job placements, and adequate resource allocation are essential for maximizing returnees' contributions. This aligns closely with previous observations by Dassin and Navarrete (2018), who underscore the critical role of structural support in transforming individual human capital gains into meaningful institutional development.

The study's findings emphasize the crucial role of individual agency, as conceptualized by Emirbayer and Mische (1998), in navigating institutional barriers. Graduates actively employed strategies such as creating new research labs, initiating collaborative networks, and leveraging international connections, thereby highlighting their proactive and strategic adaptation to organizational constraints. This agency was most effective in environments characterized by supportive leadership and collegial climates, which underscores Ehrhart and Schneider's (2016) assertion about the importance of organizational climate in shaping professional outcomes.

Supportive leadership emerged as a critical enabler, enhancing graduates' capacity to contribute meaningfully to their institutions. Leaders who valued international education experiences and who held positions allowing them to influence departmental practices significantly mitigated reintegration challenges. This supportive climate facilitated initiatives such as merit-based promotion systems and research-oriented policies, reflecting broader global trends toward aligning institutional frameworks with international standards (Kayashima & Asada, 2024; Wang et al., 2024).

Yet, persistent institutional challenges such as misaligned roles, bureaucratic inertia, and fragmented departmental climates illustrate significant barriers to effective reintegration. These issues resonate with the observations of Hao and Welch (2012) and Chu et al. (2024), emphasizing how institutional rigidity and cultural resistance can significantly constrain the potential impact of returnees. Thus, strategic structural reforms within Mongolian HEIs are imperative to leverage fully the benefits of international education.

Importantly, the study highlights a critical gap in existing literature regarding the structured placement of returnees, particularly in STEM fields. The unique structured placement of MJEED graduates within specific university departments reveals insights into how targeted work assignments can either enable or hinder returnees' institutional contributions. The necessity of aligning graduate expertise with institutional placements becomes evident, echoing the critical gaps noted by other scholars in the existing literature (Hanley et al., 2025; Wang et al., 2024).

In conclusion, while individual agency and professional transformation play pivotal roles in returnees' contributions, systemic alignment and supportive organizational climates are indispensable. Scholarship programs must strategically address structural and institutional constraints to optimize the outcomes of international education investments (Chankseliani et al., 2025). For Mongolian HEIs, fostering merit-based employment practices, creating supportive departmental climates, and facilitating ongoing professional development and international collaborations are essential steps toward realizing the full potential of returnees. These measures promise not only to enhance individual contributions but also to build robust institutional capacities for sustainable academic and research excellence.

CRedit authorship contribution statement

Ariunaa Enkhtur: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Oyundelger Enkhtur:** Writing – review & editing, Writing – original draft, Validation, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Narantogtokh Davaajav:** Writing – review & editing, Validation, Methodology, Investigation, Funding acquisition, Data curation, Conceptualization. **Sainbayar Gundsambuu:** Writing – review & editing, Validation, Methodology, Investigation, Funding acquisition, Data curation, Conceptualization.

References

- Al-Kurdi, O. F., El-Haddadeh, R., & Eldabi, T. (2020). The role of organisational climate in managing knowledge sharing among academics in higher education. *International Journal of Information Management*, 50, 217–227. <https://doi.org/10.1016/j.ijinfomgt.2019.05.018>
- 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.
- Asian Development Bank [ADB]. (2011).
- Barker, J. S. (2022). *A trying Endeavour: case study of value and evaluation in an international scholarship program*. RMIT University. Doctoral dissertation.
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with a special reference to education*. Chicago, IL: University of Chicago Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- British Council. (2014). *Exploring the impacts of transnational education on host countries: a pilot study*. https://www.britishcouncil.org/sites/default/files/tne_report_2014.pdf.
- Campbell, A. C. (2016). International scholarship graduates influencing social and economic development at home: the role of alumni networks in Georgia and Moldova. *Current issues in comparative education*, 19(1), 76–91.
- Campbell, A. C., & Baxter, A. R. (2019). Exploring the attributes and practices of alumni associations that advance social change. *International Journal of Educational Development*, 66, 164–172.
- Campbell, A. C., & Neff, E. (2020). A systematic review of international higher education scholarships for students from the Global South. *Review of Educational Research*, 90(6), 824–861. <https://doi.org/10.3102/0034654320947783>
- Campbell, C. M., & O'Meara, K. (2014). Faculty agency: departmental contexts that matter in Faculty careers. *Research in higher education*, 55, 49–74. <https://doi.org/10.1007/s11162-013-9303-x>
- Chankseliani, M., & Kwak, J. (2025). The ripple effect: understanding the societal implications of international student mobility. *International Journal of Educational Research*, 129, Article 102520.
- Chankseliani, M., Kwak, J., Hanley, N., Akkad, A., Crisostomo, M., & Wang, Z. (2025). International student mobility and poverty reduction: A qualitative study of the mechanisms of systemic change. *World Development*, 195, 107116. <https://www.sciencedirect.com/science/article/pii/S0305750X25002013>.
- Chu, J. Y., Chiu, S. Y., & Syu, Y. S. (2024). Returnee and local doctorates on research productivity: doctoral training, international mobility, and research collaboration. *Higher Education*, 87(4), 963–989.
- Collins, F. L., Ho, K. C., Ishikawa, M., & Ma, A. H. S. (2017). International student mobility and after-study lives: the portability and prospects of overseas education in Asia. *Population, Space and Place*, 23(4), e2029.
- Dai, O., & Liu, X. (2009). Returnee entrepreneurs and firm performance in Chinese high-technology industries. *International Business Review*, 18(4), 373–386.
- Dassin, J. R., & Navarette, D. (2018). International scholarships and social change: elements for a new approach. *International Scholarships In Higher Education: Pathways To Social Change*, 305–327. https://doi.org/10.1007/978-3-319-62734-2_15
- Dinibutun, S. R., Kuzey, C., & Dinc, M. S. (2020). The effect of organizational climate on faculty burnout at State and private universities: A comparative analysis. *Sage Open*, 10(4). <https://doi.org/10.1177/2158244020979175>
- Ehrhart, M. G., & Schneider, B. (2016). Organizational climate and culture. In *Oxford Research Encyclopedia of Psychology*. <https://oxfordre.com/psychology/display/10.1093/acrefore/9780190236557.001.0001/acrefore-9780190236557-e-3>.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American journal of sociology*, 103(4), 962–1023.
- Enkhtur, A. (2019). *Government Sponsored Students as Agents of National Development? Perspectives of Mongolian Alumni from Japanese Graduate Schools*.
- Enkhtur, A. (2020). Perceived contributions to national development: Government-sponsored Mongolian alumni from Japan. *Asian Education and Development Studies*, 9(2), 217–228.
- Glisczinski, D. J. (2007). Transformative higher education: A meaningful degree of understanding. *Journal of transformative education*, 5(4), 317–328.
- Gundsambuu, S. (2019). Internationalization of higher education and English medium instruction in Mongolia: initiatives and trends. *Вопросы образования*, 1(eng), 215–243.
- Hanley, N., Tyson, L. S., Wang, Z., Kwak, J., Akkad, A., Vari-Lavoisier, I., & Chankseliani, M. (2025). Impact of international professional mobility programmes: A systematic literature review. *Journal of Adult and Continuing Education*, 14779714241311007.
- Hao, J., & Welch, A. (2012). A tale of sea turtles: job-seeking experiences of Hai Gui (high-skilled returnees) in China. *Higher Education Policy*, 25, 243–260.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital. Transforming teaching in every school*. Teachers College Press.
- HERP (Higher Education Reform Project Mongolia). (n.d.). Project description. https://www.herp.mn/page_list/about.
- Hilal, K. T. (2013). Between the fears and hopes for a different future for the nation-states: scholarship programs in Saudi Arabia and United Arab Emirates from a public policy standpoint. *International Journal of Higher Education*, 2(2), 195–210. <https://doi.org/10.5430/ijhe.v2n2p195>
- Holloway, S. L., & Jöns, H. (2012). Geographies of education and learning. *Transactions of the Institute of British Geographers*, 37(4), 482–488. <https://www.jstor.org/stable/41678649>.
- Kayashima, N., & Asada, S. R. (2024). Introduction: development of universities in Southeast Asia and the impacts of study abroad. *Impacts of Study Abroad on Higher Education Development: Examining the Experiences of Faculty at Leading Universities in Southeast Asia* (pp. 1–20). Singapore: Springer Nature Singapore.
- Kayashima, N., Sugimura, M., Kuroda, K., & Kitamura, Y. (2024). *Impacts of Study Abroad on Higher Education Development: Examining the Experiences of Faculty at Leading Universities in Southeast Asia* (p. 301). Springer Nature.
- Kenney, M., Breznitz, D., & Murphree, M. (2013). Coming back home after the sun rises: returnee entrepreneurs and growth of high tech industries. *Research Policy*, 42(2), 391–407.
- Kwak, J., & Chankseliani, M. (2023). Quantitative analysis international mobility and world development: estimating the system-level impact of the bureau of educational and cultural affairs (ECA) and international exchanges.
- JICA (Japan International Cooperation Agency). (2014). Engineering Higher Education Project. https://www.jica.go.jp/mongolia/english/activities/activity_01.html.
- Law on Higher Education (2023). https://legalinfo.mn/mn/detail?lawId=16759959041191&fbclid=IwYxjawlZvAFleHRuA2FlbQlxMABicmlkETFFcnFGZXF1RGpqZnp1UDVmAR6bLozA9Hd5xHLceei-0lTucT_CiSaNaM_tn8_Ndk8t0wYwfW07MG-pdOlQ_aem_eHp8EfF0zLrBIWA7R-s6A.
- Jiang, J., Mok, K. H., & Shen, W. (2020). Riding over the national and global disequilibria: International learning and academic career development of Chinese Ph. D. returnees. *Higher education policy*, 33(3), 531–554.

- Jonbekova, D., Serkova, Y., Mazbulova, Z., Jumakulov, Z., & Ruby, A. (2023). How international higher education graduates contribute to their home country: an example from government scholarship recipients in Kazakhstan. *Higher Education Research & Development*, 42(1), 126–1240. <https://doi.org/10.1080/07294360.2021.2019200>
- Kumi-Yeboah, A., & James, W. (2014). Transformative learning experiences of international graduate students from Africa. *Journal of International Students*, 12(1), 25–53. <https://doi.org/10.1177/1541344614538120>
- Lopez-Murillo, K. (2023). Diverse socio-economic backgrounds and international pathways: European mobility opportunities through a scholarship programme for Mexican doctoral students. *Higher Education*, 1(21). <https://doi.org/10.1007/s10734-023-01005-z>
- Mamiseishvili, K., & Lee, D. (2018). International faculty perceptions of departmental climate and workplace satisfaction. *Innovative Higher Education*, 43(5), 323–338. <https://doi.org/10.1007/s10755-018-9432-4>
- McMahon, W. W. (2009). *Higher learning, greater good: The private and social benefits of higher education*. Baltimore, Maryland: The Johns Hopkins University Press.
- 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]. http://www.mext.go.jp/a_menu/koutou/itaku/1307282.htm.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
- MJEED. (n.d.). Engineering and technology higher education project. Инженер технологийн дээд боловсролын төсөл. <http://mjeed.edu.mn/>.
- MoE. Ministry of Education and Science. (2024). Statistical report of education and science fields. <https://www.meds.gov.mn/post/105745>.
- Mongolian National University of Medical Sciences, National University of Mongolia, Mongolian University of Life Sciences, Mongolian National University of Education, Mongolian University of Science and Technology, Mongolian National University of Arts and Culture. (2022). Joint Decree Issued by Six National Universities of Mongolia. https://must.edu.mn/media/uploads/2023/07/04/86.pdf?fbclid=IwY2xjawLzuDpleHRuA2FibQlXMAABHZYsdXsPCKRCZviwzfpT3iUSPb-JpFi-Knmdw70Ys0xW5Krwq_9IbGnz_g_aem_oZII5eeNvealxi2G2Ub3Cw.
- Ndreka, N. (2021). Return migration and re-integration of returnees challenges in the origin country. *Research in Social Change*, 3, 11. <https://doi.org/10.2478/rsc-2019-0012>
- Neubauer, D., & Ho, W. S. (2024). Regional transformations in Southeast Asian higher education: trends and implications. In N. Kayashima, & M. Sugimura (Eds.), *Higher Education Development in Southeast Asia* (pp. 45–67). Singapore: Springer.
- 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.
- Perna, L. W., & 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.
- 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(sup1), S29–S44. <https://doi.org/10.1080/14675980903370847>
- Schutz, A. (1967). *The phenomenology of the social world*. Northwestern University Press.
- Shen, F., Ye, W., Wang, C., et al. (2023). Effects of organizational factors on identification of young returnees from urban areas with rural societies – A perspective of adaptability. *Social indicators research*, 167, 363–390. <https://doi.org/10.1007/s11205-023-03092-y>
- Tamir, Kh., Oyumbileg, O., Batselem, E., Nomintsetseg, Ya., & Choisuren, E. (2024). Deed Bolovrolin Bodlogin Shinechlel. *Erh Zuin Barimt Bichin Emhtgel (Higher education policy and legal documents)*. Soyombo Printing: Ulaanbaatar.
- Tenhunen, M.-L. (2025). Observations on Mongolian culture and education. *Eurometor Journal*, 16(1), 7–21.
- Tharenou, P., & Seet, P. S. (2014). China's reverse brain drain: regaining and retaining talent. *International Studies of Management & Organization*, 44(2), 55–74. <https://doi.org/10.2753/IMO0020-8825440203>
- Tran, L. T., & Vu, T. T. P. (2018). Agency in mobility': towards a conceptualisation of international student agency in transnational mobility. *Educational Review*, 70(2), 167–187.
- Ulaanbaatar City Youth Development Center. (2016). Survey of overseas graduates. <https://youth.ub.gov.mn>.
- Verma, S., & Kaur, G. (2024). Faculty Retention dynamics: investigating the role of HR climate, trust, and organizational commitment in higher education context. *Sage Open*, 14(1). <https://doi.org/10.1177/21582440241233372>
- Wang, Z., Hanley, N., Kwak, J., Vari-Lavoisier, I., Al Hussein, M., Tyson, L. S., ... Chankseliani, M. (2024). How do international student returnees contribute to the development of their home countries? A systematic mapping and thematic synthesis. *International Journal of Educational Research*, 125, Article 102330.
- Yamada, S. (2016). Asian regionality and post-2015 consultation: donors' self-images and the discourse. In *Post-education-for all and sustainable development paradigm: structural changes with diversifying actors and norms*, 29 pp. 143–209). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-367920140000029015>