The challenges of education research in Japan in a changing global landscape: An investigation focusing on access to higher education

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1. Key features of the Japanese education system

The Japanese education system appears to be highly equalised and homogenised in terms of participation up to the tertiary education level (i.e. mostly bachelor programmes). Opportunities to study up to this level are widely available, and most young people acquire their first higher education degree before entering the job market. However, the youth of this country tend to feel that their chances for academic achievement are quite early on restricted by the stratified admissions system of highly selective undergraduate programmes. From this point of view, Japan's education system could be considered a device that perpetuates a hierarchical social order.

Japan instituted universal secondary education and mass higher education in the 1970s – among the earliest countries to do so in the world. Compulsory general education is set as nine years, typically a combination of six years at an elementary school and three years at a lower secondary school.

In 2016, 98.2% of elementary school students and 92.0% of lower secondary school students studied at local public schools that are open to every child in the corresponding local school districts, as each district has only one public school. While some opportunities for different school choices are provided, the absolute majority of students attend their assigned local school.

While the three years of upper secondary school are not compulsory, 98.7% of the current 15-year-old age cohort is enrolled in an upper secondary school. In contrast to the lower secondary level, upper secondary education has a hierarchical structure. Some schools are elite, highly-selective schools that work as channels for those wishing to proceed to prestigious universities, while some schools are open entry. However, 68.1% of upper secondary school students – excluding those in correspondence school – still study at local public schools in which public financial support is provided to individuals with low-income family backgrounds.

Student enrolment and graduation in tertiary education are more concentrated at the bachelor level, namely, before individuals start to work, compared to other industrialised countries. The first-time tertiary enrolment rate in 2014 was 80%, which was substantially higher than the United Kingdom's (UK) rate (61% overall and 54% excluding international students) and the average for Organisation for Economic Co-operation and Development's (OECD) member countries (68%). In the same year, Japan's first-time entry rate concentrated more in short-cycle tertiary enrolment (29% vs. UK 22% and

OECD 18%) and in bachelor's programmes (49% vs. UK 64% and OECD 59%). In contrast, enrolment in master's (9% vs. UK 32% and OECD 23%) and equivalent doctoral degree programmes (1.2% vs. UK 4.1% and OECD 2.5%) were far below the UK and OECD averages.[1]

Japan currently has 777 universities (86 national, 91 local public and 600 private), which are highly diversified in their characteristics. In 2016, 77.9% of undergraduate students were enrolled in private universities – almost all of which rely on tuition and fees as their main sources of income. Some national universities and a few private universities are highly selective in their student admission, seeking to achieve the status of a world-class research university placed high in world university rankings. Many other private universities are basically open entry and subject to oversupply issues. In 2016, 44.5% of private universities were not able to enrol enough students to meet the quota authorised by the central government. Thus, the quantitative dimensions of enrolment in tertiary education are currently decided by market demand, which is completely the opposite of demand conditions until the mid-1980s and due to the strict quantitative control by national educational planners of all education institutions, including the private sector (Amano, 1997).

Japanese enterprises have had a long tradition of promising students employment before graduation. Their specific positions are assigned after they start working in openings that are created mostly by rotating newly recruited workers into entry-level jobs and monitoring their skills and competencies after they join the enterprise. Given this context, 'trainability' or the general abilities and attitudes contributing to effective learning are stressed, and the selective admission policies of some universities are considered an indicator of their graduates' trainability (Honda, 2004).

For students and their families, this means that admission to a selective bachelor's programme of a prestigious university increases the possibility of a successful career. Dore (1976) once called Japan a representative case of 'diploma disease': a malfunction of the schooling system resulting from overheated competition for admission to selective universities that promise higher-status professional positions to graduates. The following sections highlight how education research in Japan has approached and affected national policies and practices regarding access to higher education as a key challenge throughout the entire education system.

2. Education research landscape

In Japan, most education researchers are trained in doctoral programmes in the field of education. Japan's schools of education fall mainly into two categories: those with teacher training functions and those without these functions. The former typically have origins in teacher training colleges and

[1] See the OECD's *Education at a Glance 2016*, p. 324 (http://www.oecd.org/edu/education-at-a-glance-19991487.htm).

universities, and their faculty's research is more closely linked to educational practices. The latter category of faculties of education includes those at former 'imperial universities'. These universities' graduate schools of education were established to foster the educational expertise needed to guide education policies and administration, which reflects how the education system, historically, was a device used to support a military-led nation until the end of World War II. Thus, the education research done at the graduate schools in the latter category tend to be more academic discipline oriented.

The main job opportunities for education researchers are teaching positions at teacher training programmes in undergraduate and graduate schools specifically designed for preparing teachers primarily for jobs in elementary and lower secondary education. Positions are also available in all the universities that provide programmes offering credit-based licensing of teacher qualifications especially at the secondary education level. Despite the continuously shrinking child population caused by a low birth rate and extremely low immigration flow, the number of fulltime teaching staff at universities supporting education research increased from 7,176 in 1998 to 11,120 in 2013.[2] This upsurge is due to more staff hired by private universities, which reflects the recent increase in student enrolment in education and human development sciences programmes at these universities.

In contrast, the number of full-time teaching staff at national universities with education programmes has almost stagnated in the last decade. A further decrease is expected as the government is pressuring national universities to downsize non-license-related courses in education programmes. Additional job opportunities for education researchers include those at national institutes for education research and other related fields and positions requiring special expertise at the higher education level, such as faculty development and international education experts.

The professional training and disciplines categorised as part of education research are highly diverse, ranging from philosophy to engineering. For example, Tokyo Gakugei University, a national university that is a leader in teacher training, offers graduate courses in elementary school education divided up among subject-based departments. These are health, science, music, fine arts, Japanese, social studies, mathematics, informatics and technology, as well as school psychology and early childhood, international and environmental education. The teacher training course for secondary school education includes health, science, music, fine arts, English, Japanese, social studies, mathematics, technology, calligraphy, home economics and physical education. The training course for special needs education comprises school healthcare, healthcare education and education of individuals with speech, hearing, learning and developmental disabilities.

The University of Tokyo's Graduate School of Education, in turn, offers a wide variety of disciplines and topic-based research programmes. These include basic theories of education (i.e. history,

[2] See MEXT's *School Teacher Statistical Survey* (http://www.mext.go.jp/en/).

philosophy, human studies and clinical approaches), social sciences in education (i.e. comparative education, higher education studies, economics of education and educational anthropology and sociology). Another area covered is lifelong learning infrastructure management and education policies and practices. This includes classes in educational practices, social and cultural education, educational law and systems, information and media education, voluntary and mutual learning of citizens, educational businesses in lifelong education and vocational training and administrative and fiscal policies of municipal education boards and the national government.

This graduate school also offers programmes of university management and policy studies (i.e. international case studies and university management and policies) and educational psychology (i.e. developmental psychology, educational cognitive sciences, educational information sciences and psychology of learning and instructional psychology). Further research areas are clinical psychology (i.e. developmental clinical psychology, system theory and practices of clinical psychology and curriculum development of clinical psychology) and health and physical education (i.e. physical education, brain sciences and health education). Two more programmes are teacher professional development (i.e. teacher development, research on classroom lessons and research training and curriculum), curriculum development (i.e. language teaching, mathematics and science education and education policies in developing countries). The final research topic covered is school improvement and policy studies (i.e. education policy, politics of education, school leadership and management and educational administration).

The political orientation of educational research projects varies from left to right wing. During the Cold War period at the end of the 1980s, a rivalry developed between the government ruled by the Liberal Democratic Party and the teachers union supported by socialist and communist parties. This conflict played a strong role in creating the separate political orientations of education researchers and their academic communities. From the 1990s onwards, globalisation's impact became more influential in determining the direction of education research. In particular, skill formation and employability have developed into major challenges – given the changing circumstances of regional, national and global economies – while discussions of such issues as global citizenship, inclusive education and education for sustainable development have also become more active.

As a major funding sources for researchers, the Grants-in-Aid for Scientific Research of the government-run Japan Society of Science and Promotion have played an extremely significant role. Other private funding sources are industries – especially firms in the 'education business' of testing and coaching for university and secondary school entrance examinations, as well as for job hunts. These funders have become increasingly influential.

For example, Bennesse Corporation, whose main business is to provide tests and materials supporting the home learning of elementary and secondary school students, has offered endowment chairs to

universities such as the University of Tokyo and Kyoto University. This corporation has also invited many education researchers to join in its own research institute's activities. Recruit Holdings and its companies, whose main business is information provision for job searches, have also invited education and human resource development experts to participate in surveys and research projects. Recruit is well known for its role in the 'Recruit Scandal' in the 1980s, which involved stock trading based on insider information among leading politicians, including the then prime minister. However, Japan's universities have since developed regulations on conflicts of interest in the context of a rapid increase in university-industry cooperation.

3. Approaches to the 'diploma disease'

This section discusses education research approaches to, and their impacts on, the most prominent education issue: the effects of the 'diploma disease' on access to higher education. A major topic in education research has been the social phenomena termed 'examination hell'. This is when students and their families become heavily involved in preparing for the mostly paper-based entrance examinations of elite, highly-selective universities and upper and lower secondary schools – and even some elementary schools. Those involved believe that admission to elite universities assures that their students will have successful lifelong careers.

Researchers have taken three main approaches to this issue. The first is a pedagogical perspective from which investigators have argued that overheating the competition through preparation for entrance examinations negatively affects efforts to sustain pedagogical values. Exam-oriented education tends to stress memorisation and loses the connections to real life that require a wider range of life skills. The post-war education system in Japan started as a denial of the pre-war education push to train human resources to support the war regime, so democratic citizenship and human rights have been stressed in education research and policy, including the expansion of higher education opportunities. In practice, however, an over-demand condition regarding university education, especially for elite universities, has pushed students and even school teachers to focus all their energy on preparing for paper-based examinations.

Based on the pedagogical point of view, education researchers have criticised these practices and supported the development of 'stress-free, room-to-grow' education policies. From 1977 onwards, this led to reductions in the hours spent on education by narrowing the selection of curriculum content, avoiding heavy memorisation-based classes and, in the 1990s, adding the ideal of 'zest for living' (i.e. the ability to study and think independently). More recently, these pedagogically-oriented researchers have stressed the importance of active learning, which led to further curriculum reforms in the 2010s.

The second research approach is focused on the university admission system. In addition to experts in

educational testing with a background in psychology and statistics, various types of education researchers, opinion leaders from secondary and higher education and politicians and governmental officials have committed to dealing with this issue in an attempt to satisfy various interests. Two historical landmarks in 1979 were the establishment of the National Centre for University Entrance Examination and the launch of the Common First Stage Examination (CFSE), which was replaced by the National Centre Test for University Admission (NCTUA) in 1991.

Nonetheless, compared with other countries, the university admission system in Japan is still highly decentralised. While local and national public universities have used the CFSE and NCTUA, they have also required their own second-stage essays, interviews and examinations. Among private universities, the use of NCTUA scores is optional, and many have their own entrance examinations. As a result, in 2015, only 49.0% of newly enrolled students at private universities went through the regular entrance examination system, while 84.6% of national universities' new students and 73.2% of local public university students were admitted based on the regular entrance examination. In private universities, 40.1% of newly enrolled students were admitted because of various types of recommendations.

A small percentage of students benefit from admissions processes for special categories such as adult working students and 'returnees' from overseas. Goodman (1990) notes that 'international youths' or returnees who have experienced education overseas get special (i.e. advantageous) treatment in elite universities' admissions processes. These returnees do not have sufficient opportunities to prepare for the university entrance examinations of the Japanese schooling system. However, according to Goodman (1990), these applicants are expected to have international communication skills and related competencies that are mostly missing among students selected through elite universities' standardised examinations.

The third approach to education research in Japan has focused on equality, especially in access to higher education. Social scientists, especially sociologists of education, have argued that the reduction in school hours and overly slimmed down contents of public school curricula have led to the diversification of academic achievement among students because of different family backgrounds. Richer families have sought to gain an advantage in the competition for admission to elite universities by sending their children to 'cram schools' and other types of private tutoring or to private elementary and secondary schools that provide curricula tailor-made to prepare students for entrance examinations. Another strategy is recommendation-based admission to prestigious universities without going through regular entrance examinations.

These criticisms of the social inequalities created by 'zest for living' educational reforms have ironically been used to implement policies going back to a heavier emphasis on curriculum content. The 'room to grow' education policy was officially rejected in the beginning of the 2010s as the cause

of an overall downturn in academic achievement, in part indicated by the diversification of achievement scores on the government's national admissions test. The fierce competition with new industrial economies in Asia towards the top positions in the average score on the OECD's Programme for International Student Assessment was also seen as evidence for the need for curriculum reforms.

Economic factors have also been held up as an argument for the assurance of fair access to higher education. The rate of public student loans and fellowships from the government, universities and other foundations was 51.3% of undergraduate students (i.e. full-time day-time programmes), 55.4% of master's students and 62.7% of doctoral students in 2014. The absolute majority of these (91.2% of undergraduate, 89.4% of master's and 62.0% of doctoral students) make use of the public student loan programme run by the national governmental agency – Japan Student Service Organisation. Thus, the repayment of student loans is considered a serious social issue by social scientists of education, and this problem has sparked political debates on possibly introducing income based taxation to ensure higher education contributions, as well as a politically motivated push to explore a constitutional assurance of free higher education.

4. Impacts on education policies and the education ecosystem

Education research's impacts on Japan's education policies and ecosystem are highly complex. This nation's current 'diploma disease' and test-oriented education reflects quite confused expert interventions and applications of education research output, as well as the involvement of other stakeholders. The existence of national curriculum guidelines also has had a critical structural role in determining the impact of education research.

Japan introduced the United States (US) model of a decentralised education administration of elementary and secondary education after World War II. Each municipal government has its education committee that makes many decisions, including the selection of school textbooks. However, these textbooks have to be approved by the Minister of Education, and teaching methods are also prescribed to some degree by national guidelines. These guidelines also have a strong impact on university entrance examinations as they are necessarily developed from the contents set by the national guidelines. In particular, every question in the NCTUA is written to follow closely the national curricula. Other processes impacting Japan's education policies and ecosystem should also be understood as subject to this control mechanism.

Many pedagogical approaches – often based on a Western philosophical heritage of such thinkers as John Dewey and Rudolf Steiner – have been studied in Japan, and their essential ideas have been introduced in various types of educational practices. However, the pressure to help students successfully pass their entrance examinations for universities and upper secondary schools has

restricted the contents and teaching methods of education programmes, especially in upper grades. Proposals of new education approaches such as active learning, problem-solving skills, global citizenship, sustainable development and community education are mostly approved and supported by the government. However, actual education practices tend to be more focused on the content dictated by curriculum guidelines and examinations.

The impacts of research on testing also tend to be politicised and focused on national-level decisions about testing contents and teaching methods. The theoretical background of testing reforms discussed at the national policy level is subordinate to wider concerns about transforming the articulation between secondary and tertiary education. This process seeks to move from a one-sided selection of talented students by universities to a mutual choice made by universities and students (Yonezawa & Akiyama, 2015).

Nonetheless, the focus of education debates tends to be more on practical issues, such as the introduction of description formats in the current marking sheet-based testing system and of a speaking test like that available in the Test of English as a Foreign Language developed by the Education Testing Services in the US. The underlying model of education reform in Japan basically comes from the US, where the non-governmental American College Test and Scholastic Aptitude Test are used – along with various other materials – as part of universities' autonomous admission decisions. However, in Japan, an effective discussion based on clear research evidence has been disrupted by the realities of a highly centralised development of the NCTUA by a national agency following national curriculum guidelines and of the already highly decentralised and diversified pathways to university admission.

As seen in the aforementioned debate on the articulation between secondary and tertiary education, the international literature has provided a variety of models, principles and assessment measures not only from North America but also from Asia Pacific, Europe and all over the world. In addition, the evidence on the benefits of equity in access to higher education is rich at the global level.

However, not all of these debates and findings are equally disseminated among the stakeholders inside Japan. Certain models and evidence have been selectively introduced through translations by a limited number of experts into national dialogues, and many stakeholders mostly rely on these domestic sources of information. A quite centralised policymaking and administrative structure, as well as the limited size of the domestic education research community, has tended to enclose educational discourses within barriers created by the national language. This naturally is likely to contribute to biased perspectives shaped by a limited number of domestic experts who are frequently chosen based on policymakers' preferences.

5. Does metalevel discussion make a difference?

Education researchers taking the equity approach to issues have sought to stimulate a metalevel discussion focusing on the meritocracy aspects of the Japanese context. Kariya (2017, forthcoming) argues that this issue is linked to the mindset of 'catching-up' to Western advanced economies, which was the core value of modern Japanese society and its education ecosystem from the mid-nineteenth century until the 1980s. For a time, Japan achieved a relatively high level of social equality in terms of access to higher education, but, now, a clear alternative model to the push to catch up is missing. The present rationale has involved a wide spectrum of society in the competition for academic achievement-based selection for jobs though a test-oriented education ecosystem.

Based on the above discussion, three challenges can be identified in developing positive interactions between education research and Japan's education policies and ecosystem. First, metalevel reflection on the role of education research in the education ecosystem is necessary. The questioning of Japanese meritocracy is an example of a key approach to understanding the role that education researchers can take in this context. Second, connections with international research communities with wider perspectives are needed to avoid the politicisation of education research and its application in Japan. A quite centralised political structure and the limited size of the domestic research community have contributed to biased views on ongoing educational issues. Last, evidence-based policy decisions tend not to work effectively because the number of studies done on important issues is still quite limited within Japan's education research community.

The robust tradition of training education experts in the national language through Japan's own doctoral education programmes and research communities is the primary strength of education research in Japan. This education research can thus reflect – and contribute directly to satisfying – the demands of Japanese society and its education ecosystem and can have an impact on the wide range of stakeholders sharing the national language and literature of this country. At the same time, Japan's education research community's limitations require that it open its dialogues more fully to the rich and wide contributions of the international research community. This will assure the validity of this country's research and its social implications and effective inputs into the policies and practices of the national education ecosystem.

Reference

Amano, I. (1997). Structural changes in Japan's higher education system – from a planning to a market model. *Higher Education, 34*(2), 125–139.

Dore, R. (1976). *The diploma disease: Education, qualification and development*. London: Allen and Unwin.

Goodman, R. (1990). *Japan's 'international youth': The emergence of a new class of schoolchildren*.

Oxford: Clarendon.

Honda, Y. (2004). The formation and transformation of the Japanese system of transition from school to work. *Social Science Japan Journal*, *7*(1), 103–115.

Kariya, T. (2017, forthcoming). Meritocracy, modernity, and the completion of catch-up: Some problems and paradoxes. In A. Yonezawa, B. A. Yamamoto, Y. Kitamura & T. Tokunaga (Eds.), *Education in Japan in a global age: Sociological reflections and future direction*. Dordrecht: Springer.

Yonezawa, A. & Akiyama, T. (2015). The transition from secondary education to higher education in Japan. In C. Wing (Ed.), *The transition from secondary education to higher education* (pp. 67–79). Bangkok: UNESCO Bangkok Office.