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UNLOCKING JAPAN'S INNOVATIVE POTENTIAL: A STUDENT VISA PROGRAM FOR DISRUPTING RIGID EDUCATIONAL SYSTEMS

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Introduction

Japan is often regarded as a global leader in technology and innovation, a nation synonymous with cutting-edge advancements and transformative ideas. However, despite this reputation, Japan's innovation landscape is experiencing a notable decline. A key factor contributing to this stagnation is the rigidity of the Japanese education system, which heavily emphasizes memorization and conformity at the expense of fostering creativity and critical thinking. Subsequently, this entrenched focus has created a Japanese labour market with limited flexibility, stifling the potential for groundbreaking innovation.

This white paper delves into the root causes of Japan's declining innovation, placing a particular emphasis on its education system. While some universities—especially in major hubs like Tokyo and Kyoto—have recognized the need for reform and are implementing new design and innovation programs, significant cultural and systemic barriers limit these efforts. Elementary and secondary education curricula, built around rigid entrance exams and traditional career pathways, continue to shape societal expectations, making it difficult for alternative programs to gain traction. A cyclical challenge exists: parents are hesitant to enroll their children in novel programs until they achieve prestige; however, the programs cannot achieve prestige without a substantial enrollment base.

To address these challenges, this white paper proposes the implementation of the *Innovation Student Visa Program* (ISVP), designed to attract foreign talent to Japan's emerging innovation-focused education programs. The ISVP serves three main purposes. The enrolment of international students in these programs could rapidly build their prestige and momentum, breaking the cycle of low enrollment and limited credibility. It would also diversify perspectives within classrooms, shaking up rote thinking patterns. Additionally, the ISVP would create a

pathway for foreign graduates to enter the Japanese labour market, which has traditionally been difficult for outsiders to navigate. This infusion of global perspectives and talent would help foster a more dynamic and creative workforce, addressing other key issues such as Japan's declining population and low levels of foreign talent integration.

The paper is structured as follows: it begins by examining the current structure of Japan's education system and the limitations of policy alternatives. Then, it presents the *Innovation Student Visa Program*. And provides a detailed analysis of the program's potential impacts and its feasibility. Finally, it offers a roadmap for implementation and success tracking, positioning this proposal as a critical step in revitalizing Japan's innovation ecosystem.

The Issue and Existing System

The Japanese education system is deeply ingrained into the nation's culture, with a heavy emphasis on conformity over creativity and memorization over innovation. From an early age, children are immersed in an educational environment that prioritizes standardization and uniformity, shaping not only their classroom experiences but also their extracurricular activities. A prominent example of this cultural rigidity is the widespread use of gakushū juku (hereinafter, juku), or "cram schools." These after-school institutions are considered essential to preparing students for Japan's notoriously competitive entrance exams, which determine admissions to prestigious universities and, by extension, lucrative career opportunities (Rohlen, 1980, p. 209). As Rohlen bluntly states, "juku are the equivalent of tactical weapons in what is frequently referred to as the "college entrance war" (juken sensō)," (ibid., p. 207). Consequently, juku has become a cornerstone of Japan's education system, reinforcing a cycle where academic success hinges on rote learning and pragmatism, "explicitly oriented to the ultimate goal of helping their clients'

children do better on entrance exams," (ibid., p. 209-210). Overlooking problem-solving, creativity, and critical thinking, "there is full agreement in the public school system and the juku world about the "right" and "wrong" answers," (ibid., p. 210), rooted in "the mastery of scientific principles and facts, mathematical logic, mountains of social science data, the minutia of language skills, and the ability to remain poised under great pressure" (ibid.).

While juku systems ensure that students acquire substantial knowledge, they come at the cost of stifling critical thinking, innovation, and humanistic perspectives to solutions (ibid.). Reiko Hug, a Hiroshima native, argues that the Japanese culture of innovation is hindered by a set of educational and business norms known as "Ho-Ren-So," which emphasizes strict adherence to instructions and providing the "correct" answer, rather than encouraging independent thinking or creativity (Tyre, 2019). This approach is also ingrained in Japan's educational system, where children are trained to follow precise directions and give anticipated responses. By contrast to the "move fast and break things" mentality, common in Silicon Valley, this focus on correctness stifles innovation. Hug suggests that in today's world, students need to explore possibilities and think beyond prescribed answers to foster true creativity (ibid.).

Japan's educational rigidity has ultimately contributed to a decline in its innovation landscape, referred to as the "lost decades," (Chen, 2023), marked with Gross Domestic Product (GDP) and Total Factor Productivity (TFP) decline. In the 2000s, Japan's GDP per capita was ranked second but fell to 28th in 2021, and on a purchasing power parity (PPP) basis, 28th. Additionally, over the last 30 years, Japan's TFP growth has faced a substantial decline (see Figure 1), with the last 10 years seeing a sharp decline compared to the preceding decade, caused by productivity decline across industries such as "electronic data processing machines, digital and

analog computer equipment and accessories, motor vehicles (including motor vehicle bodies), electricity, and wholesale trade," (Kim et al., 2006, p. 1).

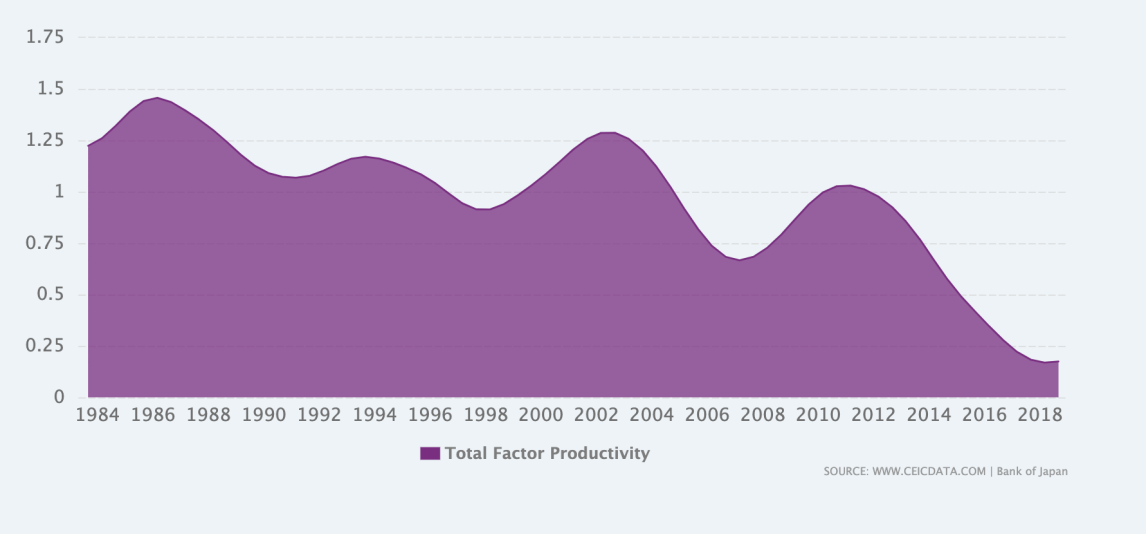

Figure 1. Japan's Total Factor Productivity 1984-2018 (CEIC, n.d.)

Compounding the issue are Japan's aging population and shrinking workforce, which exacerbate the need for creative solutions and dynamic industries. As expressed by the Japanese Prime Minister in January 2023, the economic conditions of the labour force have left it so that "Japan is standing on the verge of whether [it] can continue to function as a society" (Wright, 2023). The shrinking number of graduates entering the labour market is the product of a highly uniform education system, leading to homogenized thinking that limits the capacity for addressing complex challenges and fostering growth. Moreover, this system creates significant barriers for foreign talent, as job opportunities are often reserved for graduates of elite Japanese universities, whose admissions rely heavily on high entrance exam scores. This exclusivity further entrenches cultural uniformity within the workforce and stifles diverse perspectives.

Encouragingly, two of Japan's most prestigious institutions, the University of Tokyo and Kyoto University, have begun to address these issues. Both universities have recently introduced

innovation-focused programs that aim to foster creativity and critical thinking (Japan Times, 2023). These programs represent a promising approach to addressing Japan's innovation deficit without undermining the cultural significance of higher education. In addition to offering new academic streams, these programs introduce alternative admissions pathways, incorporating elements such as essays, letters of recommendation, extracurricular activities, and interviews—methods more commonly associated with Western education systems. This dual approach seeks to address innovation both downstream, by educating students to prioritize creative problem-solving, and upstream, by signalling to parents the value of alternative educational pathways. Over time, this could lead to broader changes in Japan's primary and secondary curricula that emphasize critical thinking and creativity.

Despite their promise, these programs face significant hurdles. A vicious cycle has emerged: parents and students are reluctant to enroll in these "pilot" initiatives until they gain prestige, while the programs require substantial enrollment to establish their reputation. As a result, these innovative efforts are struggling to make a meaningful impact on Japan's rigid education system and its declining innovation landscape.

Rethinking Education: A Bottom-Up Approach to Foster Innovation in Japan

Research has indicated that the lack of individuality among Japanese university students contributed to several negative outcomes during their university experience. Students' strong reliance on memorization comes at the expense of developing critical thinking skills. While students could flawlessly recall various content, they often lacked a deeper understanding of the reasoning behind key concepts. The research emphasized the need for intellectual courage among

students, the lack of which hindered their ability to appreciate the importance of presenting counterarguments, a skill crucial for fostering intellectual growth (Dunn, 2015, p. 31).

When university educators were asked how to address this issue, they advocated for introducing critical thinking skills earlier in students' educational journeys. Educators emphasized the need to shift away from rote learning in elementary and secondary school systems, which set the foundations for higher education. This change would require teachers to take responsibility for embedding intellectual virtues into the curriculum. For such reforms to be successful, educational policymakers must recognize that fostering thinking skills enhances overall student performance rather than distracting from it. In shaping new policies, they must also address the pervasive practice of "kopipe" (copy-and-paste), where students simply reproduce information provided by teachers. (Dunn, 2015, p. 33).

Implementing a bottom-up solution for primary and secondary students requires a comprehensive overhaul of Japan’s educational curricula at these levels, a step mainly recognized as essential by university faculty. This would involve exploring a wide range of potential changes to achieve the desired outcomes effectively. One potential change could be introducing project-based learning at each curriculum level, where students learn to solve real-world problems through collaborative group projects. One key element that could encourage critical evaluation would be the "driving questions" method, where students encounter various themes and attempt to answer questions through inquiry. A report submitted by the Japanese Central Council for Education in the Ministry of Education, Culture, Sports, Science and Technology (MEXT) suggests the emergence of a new learning style, encouraging proactive, interactive and deep learning, is key to fostering a knowledge-based society (Mikouchi, 2018, p. 1).

Another curriculum-enhancing strategy involves incorporating interdisciplinary subjects that merge diverse fields such as science, technology, and art, promoting a more holistic and versatile approach to learning. This approach would actively work to eliminate discriminatory biases related to gender and socioeconomic status, creating equal educational opportunities. To successfully implement this approach, teachers must be equipped with innovative pedagogical methods to nurture students' independent thinking (Badawi, 2024, p. 6).

Inquiry-based learning, a learning strategy consisting of questioning, exploration, and critical analysis, could also allocate time for students to engage in different ways of self-expression, reflection, and meaningful discussions aimed to foster personal growth and critical awareness, helping them identify issues and concerns in their daily lives. These processes are also important for enhancing students' inquiry skills as they practice formulating questions and discussions. Inquiry-based learning methods also emphasize hands-on activities that could prove critical to developing students' unique understandings through questioning certain norms and being on par with various international discussions (Watanabe, 2024, p. 1).

While these changes could theoretically enhance students' critical thinking skills and provide them with a promising future, implementing them would present significant challenges. As a cultural hub, Japan's deeply ingrained traditions and practices may cause this bottom-up approach to falter. Moreover, the primary goal for many Japanese students is to receive admission to a prestigious university, which is tied to numerous social expectations. When students fail to secure admission to a top university on their first attempt, they are often stigmatized as *ronin*, a derogatory term used to describe academic "failures". Such social stigmatization is discouraging and can negatively impact students' self-esteem, mental health, and motivation, creating unnecessary pressure to meet societal expectations of success. As critical thinking and inquiry-

based learning do not directly correlate with achieving higher test scores, parents, students, and educators perceive such methods as distractions from the ultimate goal of excelling in competitive entrance exams (Koichi, 2014).

Japan's education system might be more meaningfully improved through a significant shock that disrupts the current structure and forces a paradigm shift in how students are taught and evaluated. This requires students to work with trained individuals in critical and independent thought who can help students develop similar skills. Without transformative changes, fostering intellectual courage and prioritizing critical inquiry, Japan's education system will struggle to equip students with the required tools to navigate a rapidly evolving and interconnected world.

A Forward-Looking Solution & Theory of Change: The Innovation Student Visa

In contrast to the previously discussed approach to systemic reform, this paper proposes the Innovation Student Visa Program, as a top-down solution, to attract foreign talent to new design and innovation programs at leading universities, like the University of Tokyo's College of Design and the Innovation Hub Kyoto at Kyoto University. By incentivizing international student enrolment in such programs, the ISVP aims to achieve three critical outcomes.

First, foreign talent could boost the visibility of the new design programs, which in turn could accelerate their growth and establish prestige and demand. This external validation can catalyze broader acceptance of these programs within Japan and, over time, reduce the cultural resistance to diverging from the traditional pathways currently dominating Japan's education landscape. Importantly, this approach allows Japanese families to avoid the risk of enrolling in unproven programs as it leverages foreign participation to build credibility and demand.

Second, international students will bring diverse perspectives into Japanese classrooms that may otherwise be constrained by uniform educational experiences. By fostering a more diverse learning environment, the ISVP aims to disrupt the conformity in thought patterns supported by Japan's rigid education system. Such diversity is particularly valuable in design and innovation programs, where creative problem-solving and critical thinking are essential.

Third, in addition to addressing the obstacle that the education system poses to innovation, the ISVP also provides a solution to another barrier that stifles Japanese innovation: the country's declining and aging workforce. As numerous experts suggest, Japan must loosen or shift its current immigration pathways to adapt to its changing labour market (Wright, 2023). Aside from immigration status, foreign talent faces significant barriers to entering the Japanese labour market due to the rigid structure of its educational and employment systems. Most companies hire almost exclusively from prestigious Japanese universities, and entrance into these institutions is often predicated on passing highly competitive and culturally specific exams, which can be daunting for foreign applicants (Rohlen, 1980, p. 209). The ISVP circumvents these barriers by creating a pathway for foreign students to receive education in Japan, earn credentials from reputable universities, and gain a foothold in Japan's labour market.

Additionally, the ISVP addresses industry demands for a more dynamic and globally competitive workforce. There has been a "widespread sense among Japanese R&D managers, industry observers, and government officials that the Japanese approach to technological innovation is no longer working effectively, and fundamental reform of the national innovation system must take place" (Branstetter & Nakamura, p. 192). Japanese companies have increasingly recognized the need to break from traditional growth models to compete with neighbouring innovation hubs, but institutional structures have limited their ability to diversify. Mitsubishi, for

instance, has partnered with Joe Hug, a consultant looking to shift the school-to-workplace pipeline in Japan to support innovation and creativity. Partnering with two other well-known Japanese companies, Mitsubishi has hired Hug to teach "global competency" to their junior employees (Tyre, 2019). Additionally, since 2017, 23 major Japanese companies like Toyota and SECOM have been participants in Innovation Discovery Japan, a program aimed “to build networks between MIT [students, researchers, and faculty] and Japan by exposing [them] to Japanese technologies and businesses” (MIT, 2020). This ongoing initiative demonstrates a strong desire by Japanese companies to attract prestigious students from the West and shift workforce and labour market culture towards innovation and creative thinking skills.

This proposal assumes that the novel programs integrate cooperative placements, ensuring both foreign and domestic graduates have the potential to be seamlessly absorbed into the workforce. If such systems are not already in place, they must be established. By connecting foreign talent to Japanese industries in need of new talent and workforce participants, the ISVP bridges the gap between supply and demand, while ensuring that graduates are well-positioned to contribute to stagnating industries.

In the long term, the Innovation Student Visa Program could catalyze broader educational reform. By demonstrating the value of creativity, critical thinking, and diverse perspectives in fostering innovation, the program could ultimately influence the education system from K-12 through to universities. In the medium term, this alternative pathway will hopefully introduce new ideas of innovation and creativity into the Japanese economy by addressing systemic issues.

Feasibility in Other Jurisdictions

A jurisdictional scan was conducted to identify similar policies aimed at leveraging visa systems to fulfil national education objectives, in comparable jurisdictions like OECD countries.

In 2024, Canada introduced the Francophone Minority Communities Student Pilot to selectively recruit students from Francophone countries and potentially offer permanent residency. Eligibility criteria for the program include acceptance into an eligible institution where the study program is primarily taught in French (Government of Canada, 2024). This program is a real-world precedent that provides a reference for the structure of the ISVP, in terms of funnelling international students to fulfill the country's specific needs of the country (strengthening the Francophone community in Canada as compared to strengthening innovation in Japan) and limiting enrolment to specific programs (French curriculum as compared to innovation curriculum).

In addition, the J-1 visa in the United States is an exchange visitors visa that includes a category for college and university students, among other categories (U.S. Department of Homeland Security, 2017; U.S. Citizenship and Immigration Services, 2023). This is another example of a specialized student visa that is separate from the country's regular student visa. The U.S. government recently leveraged the J-1 visa to increase foreign talent contribution, specifically in science, technology, engineering, and math (STEM) fields. In 2022, it announced an opportunity for STEM students on a J-1 visa to double their length of academic training in the country. This was part of the government's acknowledgement that international students in STEM contribute to U.S. leadership in innovation and its economic competitiveness (U.S. Department of State, 2022; U.S. Department of State Bureau of Educational and Cultural Affairs, n.d.). Thus, the U.S. J-1 visa exemplifies how student visas can be strategically used as a lever to enhance innovation in the education system and beyond.

Analytical Framework for the IVSP

As this paper articulates, innovation in Japan has stagnated due to its unchanging education system, rooted in a culture of homogeneity. As a historical leader in global industries, Japanese policymakers must seek to overcome the barriers that Japan's rigid education system and cultural resistance pose to innovation while preserving and respecting Japanese traditions. Thus, the proposed ISVP employs the policy approach of *layering* which introduces reform by working around unchangeable elements of existing institutions (Streeck & Thelen, 2005, p. 23). By incentivizing international enrolment in design programs at the University of Tokyo and Kyoto University, the ISVP invites foreign ideas into Japanese academia and industry. It aims to foster innovation and diversity by promoting spaces where novel ideas confront traditional Japanese beliefs about education without directly dismantling the status quo system.

An Institutional Layering Approach

Adopting a layered policy approach makes the proposed ISVP feasible. By promoting new programs focused on innovation and design, the ISVP eschews a frontal attack on Japan's education system and curricula that limit critical thinking. Instead, it seeks to diversify academic and professional spaces by recruiting foreign talent to pilot the programs in Tokyo and Kyoto. Subsequently, this proposal anticipates that increased foreign enrolment will increase demand and competition for such programs, enhancing the programs' prestige and domestic enrolment over time. By welcoming more foreign students into Japan's top academic institutions, Japanese students and their international peers will exchange diverse perspectives and lived experiences. This exchange of ideas has the potential to foster critical thinking skills, leading to long-term cultural shifts and increased innovation as graduates bring diverse insights to Japan's workforce.

Sociopolitical Feasibility

Previous efforts to reform the Japanese education system through an overhaul approach were unsuccessful. In the 1990s and 2000s, systemic reform efforts attempted to reduce the instructional content and the duration of the school week (Yamanaka & Suzuki, 2020, p. 90; Aspinall & McLaughlin, 2024, p. 311). However, by the late 2000s, this model of "pressure-free" education was abandoned in favour of a "back to basics" approach. The Ministry of Education's reluctance to implement reformist changes led to this decision as such changes required top-down regulatory policymaking. As the authority of the ministry is reinforced by a culture of consensus and uniformity in Japanese society, there are disincentives for change among different stakeholders in education. While past politicians have attempted to bypass the ministry to introduce education reforms – such as through the Ad Hoc Council on Education in the 1980s – the bureaucracy has maintained firm control over the education system (Aspinall & McLaughlin, 2024, p. 317).

Departing from these earlier reforms, the ISVP and the design programs in Tokyo and Kyoto are positioned as "additions" to Japanese post-secondary education, meaning existing institutions are not directly undermined (Streeck & Thelen, 2005, p. 22). Rather than overhauling the current curriculum and structure of Japanese education, the ISVP aims to shift innovation and educational beliefs by promoting creative design programs as credible *alternative* pathways rather than *replacements.* In other words, this new "new layer" safeguards the autonomy of students and their families to choose their preferred paths rather than imposing decisions through policymakers. As a result, the proposal is unlikely to face large resistance, making it both politically and socially feasible.

Economic Feasibility and Opportunity Costs

Japan's contemporary education system, rooted in modernization reforms dating back to the Meiji era from 1868-1912 (Romano & Goswami, 2022), makes comprehensive curriculum reform a costly and challenging option (Streeck & Thelen, 2005, p. 22). High costs associated with such an overhaul undermine fiscal and political feasibility, as governments and citizens often resist large spending, especially on reforms with unclear benefits. The layered approach of the ISVP addresses this challenge in two ways. First, it avoids institutional overhaul, preserving Japan's unbending education system and sidelining the significant costs of curriculum development, teacher retraining, and infrastructure changes. Second, the ISVP leverages the widespread desire of international students to study in Japan, making it relatively cost-neutral.

This paper proposes the ISVP as a cost-neutral strategy, assuming that foreign students can cover their tuition and living expenses without government financial aid. Empirical studies reveal that Japan's world-class education system, fascinating culture, language, nature, and affordability (Nam & Cheng-Hai, 2021), have already fostered eagerness among foreign students willing to pay to study there. Relatively, the ISVP focuses on recruiting students specifically for the new design programs at the University of Tokyo and Kyoto University, which enhances its fiscal efficiency. As both universities rank in the top 100 of Times Higher Education's "Best universities in the world" list for 2025 (Times Higher Education, 2024), their strong reputations are expected to attract international students, eliminating the need for additional government spending on promotion. Moreover, while the mechanisms to monitor and evaluate the ISVP's success, examined in further detail in the subsequent sections, will incur some costs to the government, such costs will only be one-time. As resources related to data collection and surveying can be used

for multiple purposes, these investments will be sustainable and will reduce the resource intensity involved in implementing this policy specifically.

At the same time, this paper acknowledges that the proposed ISVP carries limited opportunity costs. The ISVP's focus on recruiting foreign students into the design programs in Tokyo and Kyoto may reduce opportunities for domestic students within these programs and in the workforce. However, Japan's homogenous cultural beliefs about education and conformity will likely result in low domestic enrolment, as these programs are still novel. In addition, Japan's shrinking labour force will necessitate an injection of foreign talent, reducing the opportunity cost of this program in the long term. Easing visa pathways for foreign students and supporting their success will help establish these innovation-based programs as credible in Japan and ultimately encourage greater domestic enrolment in the future.

The Potential for Long-Term Reform and Cultural Diversity

If the ISVP builds prestige and demand for *additional* education programs that foster innovation and creativity and launch graduates into domestic and global labour markets, it could break down traditional beliefs about education. The assumption that foreign students will secure jobs with Japanese firms is supported by Japan's ongoing efforts to facilitate international employment, such as the Immigration Bureau's points-based system for the immigration of highly skilled foreign professionals (Nam & Cheng-Hai, 2021, p. 8).

Although Japan is known to resist foreigners, interactions surrounding shared goals in universities and the workplace can foster the necessary trust to overcome such barriers (Orsini & Magnier-Watanabe, 2023, p. 270). One case study found that Japanese employees interacting with Western and Chinese co-workers reported higher understandings and perceived benefits of cultural

diversity (ibid., p. 271), indicating positive shifts in Japanese business cultures with the addition of foreign employees.

Practices rooted in memorization, conformity, and resistance to foreigners may lose influence due to strengthened critical thinking and diverse beliefs, with the latter having the potential to adopt more prominent roles in shaping individual behaviour (Streeck & Thelen, 2005, p. 23). Over time, the influx of foreign and domestic graduates from innovation programs into Japan's workforce and society could drive broader cultural and institutional change. Through its layered policy approach, the IVSP offers a path to restore and transform the overall trajectory of innovation in Japan, even without radical reform.

Mechanisms for Implementation

The ISVP could either be introduced as a new visa category that will likely require legislative amendments, or as a minor administrative change to the existing student visa category, which currently allows students to enrol in the innovation programs at the University of Tokyo and Kyoto University, assuming no program-specific citizenship status restrictions at the institutional level.

For the most part, the ISVP would function identically to the existing student visa category, with the restriction that students enroll in innovation programs as a condition of visa approval. This takes a more direct approach in allowing Japan to funnel a portion of incoming international students into innovation programs. The program also serves a dual purpose for the Japanese government to ensure its innovation needs are being met while incentivizing higher education institutions to establish similar innovation programs.

Alternatively, a minor change to the existing student visa category would entail reallocating the government's existing international student admission capacity between a regular stream and a new innovation stream. This adjustment would likely involve a minor change to the administration of the student visa program without legislative amendments. Prospective international students could choose consideration for either or both streams during the process of visa application.

If a legislative change is required, the Immigration Control and Refugee Recognition Act (ICRRA) would be implicated. As Japan's immigration law, the act defines the categories and conditions of visas under which people may enter the country as foreign residents. Signs that the government is open to making changes to the law are evidenced in its 2018 introduction of 14 new visa categories (Strausz, 2022, p. 480). More recently in 2024, the Japanese government passed an amendment to the law which loosened some restrictions for unskilled migrant workers, receiving support from both the governing coalition and opposition parties (Higuchi et al., 2024).

Further, the proposed ISVP is consistent with Japan's longstanding position that "the government has no intention to promote a so-called immigration policy," made clear by the late Prime Minister Shinzo Abe in 2018. Instead, the student visa continues to remain a "side door" immigration policy that, in part, provides a source of foreign labour (Kuga, 2024; Higuchi et al., 2024; Strausz, 2022, p. 475). To reflect this sentiment toward immigration among Japanese society in the proposed ISVP, concerns about potential expansion to the number of foreigners can be mitigated by maintaining the same number of admitted international students as before, with the only difference being that a small portion of international students will now be funnelled into innovation programs. This proposed policy shall not preclude any future year-to-year adjustments in the number of international students admitted to the country.

Institutional capacity

Within Japan's policy spaces, institutional capacity exists to administer the proposed innovation student visa. The ISVP will continue to be administered by the Ministry of Justice whose bureaucrats make most decisions about immigration in the country (OECD, Asian Development Bank Institute & International Labour Organization, 2016, p. 31; Strausz, 2022, p. 484). In the case the proposed visa is implemented through a minor change in internal administration rather than the introduction of a new visa category, the Ministry has some discretion in the interpretation and implementation of the visa categories defined within the ICRRA (Strausz, 2022, p. 485). It is unlikely that significant financial resources, human capital, or administrative capacity will be required to implement the ISVP. Under a previous amendment where new visa categories were introduced, the Japanese government also set up an office to assist foreigners with daily life challenges with 100 locations spread across the country. Moreover, student visas represent the second-largest visa category in Japan, after only permanent residents (see Figure 2), further demonstrating the government's administrative capacity to implement the proposed ISVP (Strausz, 2022, p. 475), especially if the number of admitted international students remains unchanged.

Table 24.2 Foreign Residents in Japan by Visa Types, 2018 (all visa types with more than 100,000 people)

Permanent residents	771,568	33.8% China, 16.8% Philippines, 14.6% Brazil, 9.2% South Korea, 25.6% other
Foreign students	337,000	39.3% China, 24% Vietnam, 8.6% Nepal, 5.1% South Korea, 23% other
Technical interns	328,360	50.1% Vietnam, 23.7% China, 9.2% Philippines, 8.2% Indonesia, 8.8% other
Special permanent residents	321,416	89.8% South Korea, 9% North Korea, 0.4% Taiwan, 0.3% China, 0.5% other
Engineer/humanities/international services	225,724	36.2% China, 15.4% Vietnam, 10.9% South Korea, 5.1% Taiwan, 32.4% other
Long-term residents	192,014	33.9% Brazil, 27.1% Philippines, 14.7% China, 5.5% Peru, 18.9% other
Dependents (family)	182,452	43% China, 14.3% Nepal, 8.4% Vietnam, 6.6% South Korea, 27.7% other
Spouses	115,050	25.6% China, 19.1% Philippines, 11.1% South Korea, 6.8% United States, 6.1% Thailand, 31.3% other

Source: Data from Ministry of Justice 2019c compiled and synthesized by author.

Figure 2. Foreign Residents in Japan by Visa Type (2018) (Strausz, 2022, p. 475).

Follow-Up

This section recommends actionable strategies for evaluating the ISVP effectively, outlining key metrics of success, mechanisms for ongoing monitoring, and strategies for ensuring adaptability and sustainability. These recommendations are designed to guide universities, government agencies, and employers in maximizing the program's impact while addressing potential challenges.

I. Metrics of Success

To evaluate the effectiveness of the ISVP, metrics assessing its impact on innovation, workforce integration, and educational transformation are outlined. This mix of qualitative and quantitative approaches ensures a comprehensive analysis is undertaken.

Impact on Innovation

One potential metric for success could focus on the program's ability to expand innovation in Japan, which will examine the number of patents, startups, or research projects initiated by program alumni. It would focus on the extent to which these alumni contribute to innovation within their industries, which can be assessed through employer evaluations and surveys. Comparing innovation indices in targeted sectors before and after the program's implementation could provide insights into its effect on Japan's innovation sphere. This paper, however, recognizes that measuring the precise impact of a program like this can be challenging. Long-term innovation impacts are complex to ascertain since causal relationships are often influenced by confounding factors that have an impact on Japan's innovation, making it difficult to attribute success solely to ISVP alumni.

This challenge is evident in similar programs, such as the OPT (Optional Practical Training) program in the U.S. This is a program that allows international students in the U.S. to

work temporarily in their field of study, gaining practical experience after completing their degree. Neufeld (2019) examined the relationship between OPT participants and patent generation, finding a positive correlation between regions with a higher density of OPT participants and increased patent output (p. 1). However, this growth was not solely the result of participant contributions. Spillover effects, such as the presence of a larger pool of educated individuals, played a role in fostering a more dynamic and innovative environment (Neufeld, 2019, p. 5). This underscores the difficulty in isolating direct program outcomes from external influences. Moreover, the potential for selection bias—where ISVP attracts particularly talented students or, conversely, weaker applicants excluded from more conventionally prestigious programs in Japan—poses an additional challenge to accurately evaluating the program's impact. Without careful analysis, program outcomes could reflect the quality of participants rather than the program itself.

To address these challenges, the metrics will prioritize success directly attributable to ISVP. This involves diversifying data collection approaches, including case studies of notable alumni achievements, employer feedback, and longitudinal surveys tracking alumni career progression. Benchmarking outcomes against those of domestic students in established innovation programs will provide a valuable reference point for evaluating the program's effectiveness. For example, at the University of Tokyo, initiatives like the "Entrepreneur Dojo" foster entrepreneurial skills and report significant outcomes, such as eighty startups using the university's incubation facilities, with four now publicly traded and five acquired (University of Tokyo, 2020). Comparing ISVP alumni outcomes to those from programs at the University of Tokyo can demonstrate the program's unique contributions to addressing Japan's innovation challenges.

Foreign Student Workforce Integration

The second metric of success evaluates the program's ability to integrate foreign students into Japan's workforce. A primary objective is to retain skilled talent by facilitating the transition from student visas to work visas. Success will be measured by tracking alumni employment rates and income levels, providing a clear picture of their career trajectories and the program's role in preparing students for Japan's labour market. Employer feedback on alumni skills and workplace performance will also provide insights into how well the program prepares students for Japan's labour market.

To ensure long-term success, tracking career progression beyond initial job placements is essential. This includes analyzing how alumni advance within their industries, the types of roles they secure, and whether they contribute to leadership or innovation in their fields. By doing so, the program can gauge its broader impact on building a dynamic and globally competitive workforce in Japan.

At the same time, it is crucial to consider potential risks, such as universities prioritizing international students over domestic ones due to higher tuition fees. While this can increase program funding, it may lead to tensions or concerns about reduced opportunities for Japanese students. Addressing this requires balancing program growth with efforts to maintain equity and inclusivity, ensuring that the program enhances rather than detracts from Japan's educational ecosystem.Educational System Transformation

The third metric evaluates the program’s role in transforming Japan’s education system by promoting creativity and reducing reliance on rote memorization. This will be assessed by tracking changes in domestic students' willingness to apply to similar innovation-based programs. An increase in applications would suggest growing acceptance of these programs as prestigious and

viable educational pathways. Surveys of domestic students and parents can provide additional insights into changing perceptions of innovation-based education, including whether these programs are viewed as pathways to stable, high-quality jobs.

However, selection bias plays a key role in shaping these perceptions. The initial success of ISVP alumni could heavily depend on the quality of participants the program attracts. If ISVP draws exceptionally talented students, their achievements may amplify the program's prestige, encouraging broader acceptance by domestic families. While this visibility is valuable, relying heavily on high-achieving participants may overshadow the program's systemic goals, such as fostering innovative teaching methods or expanding access to innovation-based education. Essentially, it could create the impression that success stems from the students themselves rather than the program's design, resources, or broader impact. This highlights the need to carefully monitor how participant selection influences both program outcomes and public perception.

Furthermore, the development of K–12 innovation-based programs and the enrollment trends in existing K–12 innovation-focused initiatives inspired by ISVP could serve as valuable indicators of broader systemic transformation. By documenting the program’s success through alumni achievements, job placements, and collaborative projects, the program aims to inspire confidence in innovation-based pathways. Collecting data on employment outcomes and economic contributions will reinforce program credibility and address parental concerns about associated risks.

II. Monitoring & Evaluation Mechanisms

A key component of the program’s success will be the creation of a robust alumni tracking network. Research by Semova (2013) and Turner & Lindsteadt (2012) shows that well-developed alumni networks are crucial for improving the reputation and competitiveness of educational

institutions. The alumni network will serve as a primary tool for gathering feedback while helping to establish the program's credibility, especially among stakeholders like Japanese parents, who may have concerns about the program's prestige.

The ISVP is designed as a ten-year pilot program, allowing for iterative evaluation and adjustments to ensure its success. With annual and biannual feedback loops from alumni and employers, career trajectories, employer satisfaction, and real-world program impacts can be tracked. This structured timeline ensures that the program evolves in response to feedback and continues to align with Japan's innovation goals.

Alumni Tracking Systems

Building upon the success of programs like the Fulbright Program, which has leveraged interactive databases to track alumni careers and achievements (Fulbright Canada, n.d.), the ISVP will implement a digital platform where alumni can engage with networks of current students to, share their career progress, and access new professional opportunities. This platform will enable success stories to be gathered and published, which can be used to demonstrate the tangible impact the program is having on participant careers. Simultaneously, this platform will provide employers with the ability to provide real-time feedback, helping to continuously refine the program to ensure that it remains aligned with evolving industry needs.

Reputation and Peer-to-Peer Mentoring

Alumni networks not only serve as a resource for collecting feedback but also play an important role in building and maintaining the program's reputation. According to Semova (2013), successful alumni do not just contribute to their fields—they also help increase their institution's visibility, thus enhancing its prestige (p. 264). By acting as ambassadors, alumni can share their personal success stories, speak at events, and provide testimonials that address any concerns about

the program. Through these efforts, alumni will contribute to creating a community around the program, encouraging both international and domestic students to participate.

Peer-to-peer mentoring networks, a key feature of successful alumni systems, have been shown to encourage knowledge-sharing and promote a culture of innovation. Harris (2015) discusses the role of collaborative networks like the Rural Doctors' Society in diffusing innovation, highlighting how a shared commitment to improving public health enabled members to implement widespread reforms in Thailand's healthcare system (p. 171-174). Through forums like the Sampran Forum, members exchanged experiences and insights, fostering a culture of mutual learning and progressive change (Harris, 2015, p. 173). In a similar vein, alumni from the University of Waterloo's Communitech network have been instrumental in fostering an entrepreneurial culture in the high-tech sector by offering mentorship and sharing success stories (Ornston, 2021, p. 398-401). These peer-to-peer mentoring systems within alumni networks are a vital part of the program, helping to cultivate a culture of entrepreneurship and innovation, where alumni mentor current students and new graduates and guide them through industry challenges.

Harris (2015) further emphasizes how networks can act as catalysts for systemic change. In the case of the Rural Doctors' Society, doctors' shared experiences and collective identity within the network allowed them to transform the healthcare landscape (Harris, 2015, p. 172). Applying this framework to the ISVP, alumni can help students succeed and function as agents of change by guiding future generations of students. Alumni who have successfully launched businesses or contributed to major innovations could share their experiences through informal storytelling and mentoring, thereby influencing new students' entrepreneurial mindset and helping them tackle obstacles they might face in their professional journey.

In addition to fostering a sense of community, alumni will provide continuous feedback

through the platform. This feedback, collected from alumni surveys, employer evaluations, and industry-specific surveys, will be crucial for tracking the program's long-term impact. The integration of both qualitative and quantitative data will enable the assessment of the career progression, entrepreneurial outcomes, and societal contributions of the program's alumni. This process will also ensure the program adapts to meet the ever-changing needs of the industry.

III. Adjustments, Flexibility, and Exit Strategies

To ensure the program's adaptability, sustainability, and alignment with Japan's evolving innovation goals, the ISVP incorporates mechanisms that balance flexibility with accountability. These include a 10-year sunset clause for evaluation, financial safeguards, and outcome-based metrics to facilitate adjustments or phased termination if necessary. By proactively addressing potential challenges, the program minimizes risks and enhances long-term viability.

10-Year Sunset Clause: Minimizing Disruption

Rodrik (2007) emphasizes the value of trial-and-error mechanisms in policymaking, particularly when navigating uncertain outcomes. This approach allows for iterative improvements and ensures the program evolves based on evidence rather than rigid assumptions (Rodrik, 2007, p. 112). The 10-year sunset clause is a pilot evaluation mechanism, allowing the program to operate on a trial basis before a comprehensive review determines its continuation. This clause ensures minimal disruption by focusing solely on the visa component for international students, while the broader educational initiatives, such as innovation-focused degree programs, continue, expand, and attract domestic participants. By isolating the evaluation period, the sunset clause provides flexibility to adapt or terminate without jeopardizing existing educational structures. By embedding flexibility into the program's design, the sunset clause mitigates financial and operational risks, ensuring that successful elements are preserved and integrated into national

strategies. In addition, with this clause, the program ensures sufficient time to track at least five cohorts of alumni graduating from typical four-year programs. This approach provides an opportunity to evaluate their early- to mid-career progression, offering valuable insights into the program's long-term impacts on workforce integration.

Stakeholder Collaboration and Financial Flexibility: Ensuring Adaptive Success

The adaptability of the ISVP relies on strong partnerships with key stakeholders, including government agencies, universities, and private-sector employers. These partnerships are structured through flexible contracts with exit clauses, ensuring resources are efficiently reallocated based on program outcomes. Universities can redirect facilities, staff, and funding to domestic innovation initiatives, while employers provide feedback to refine skill-building elements for future cohorts. Safeguards, such as scaled enrollment, also allow the program to gradually reduce participant numbers while maintaining support for ongoing cohorts, minimizing overcommitment of resources.

Stakeholders play distinct roles in ensuring the program's success:

- **Government Agencies** oversee policy alignment and program evaluation, ensuring the program is adhering to innovation goals.
- **Universities** design and implement curricula while monitoring alumni outcomes to inform adjustments.
- **Employers** contribute to workforce readiness through skill assessments and real-time feedback.

This collaborative framework integrates financial safeguards with stakeholder engagement, aligning with Rodrik's (2007, p. 116) emphasis on public-private partnerships for fostering innovation and balancing risks. By leveraging diverse expertise and maintaining resource

flexibility, the ISVP can adapt to evolving challenges while preserving investments in Japan's broader innovation ecosystem.

Ensuring a Lasting Legacy

Even if the ISVP concludes, alumni networks will continue to provide long-term value. Alumni can serve as mentors, ambassadors, and contributors to other initiatives, fostering a culture of innovation and collaboration. These networks, supported by digital platforms and peer-to-peer mentoring systems, ensure that investments in alumni development yield lasting benefits for Japan's workforce and innovation ecosystem.

Conclusion

The contemporary Japanese education system is entrenched in a culture prioritizing rote learning and strict conformity, which has stifled creativity and critical thinking. As a result of such rigidity, Japan's innovation landscape has become stagnant. Systemic barriers in the Japanese education system, such as the dominance of cram schools, a rigid university admissions process, and valuing memorization over independent thought, have contributed to a workforce ill-prepared for complex challenges. These issues, combined with an aging population and a shrinking workforce, have compounded Japan's inability to maintain its global competitiveness.

The Innovation Student Visa Program seeks to tackle these barriers. By attracting global talent to design-focused programs, such as those at the University of Tokyo and Kyoto University, and encouraging international collaboration, the ISVP provides a unique opportunity to break the cycle of stagnation. The influx of diverse perspectives in Japan's academic spaces can challenge the status quo, fostering creativity and the development of diverse problem-solving and critical thinking skills in classrooms which could spill over into the broader Japanese workforce. Thus,

such diversity is essential to fostering innovation and overcoming the structural barriers that have hindered Japan's progress.

While bottom-up reforms to Japan's primary and secondary curricula are vital, they are hindered by cultural resistance at the systemic level. Thus, the ISVP offers a pragmatic solution that eschews radical curricular reform, yet has the potential to be highly transformative. By incentivizing international enrolment into design-oriented programs at leading institutions like the University of Tokyo and Kyoto University, programs are expected to build prestige, which might challenge how Japanese families traditionally think about education. As programs gain traction, increased numbers of Japanese students may enroll, shaking up the country's overall views toward education that have remained stagnant for decades.

Ultimately, if Japan fails to address the aforementioned issues, its "lost decades" could be prolonged and the challenges of a shrinking labour force may escalate. The ISVP and the opportunity to diversify Japanese academia, workplaces, and broader society provide critical opportunities to restore Japan's leadership within the global innovation ecosystem while ensuring its competitiveness on the global innovation stage.

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