

## Chapter 5. Educational Development in Modernization in Japan

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### Section 1: Introduction

It has been about 150 years since the modern education system was introduced to Japan. Japan has a different historical and cultural background from Western countries, and a modern education system was introduced much later than in those countries.

Nevertheless, Japan's education level is now considered to be quite high globally, judging from the results of the PISA and TIMSS international assessments of educational achievement.

Japan has also produced many Nobel Prize winners in science.

How did this modern education system develop in Japan?

The Japanese government introduced a modern education system at the beginning of the Meiji period and almost completed the initial framework for universal primary education in just 30 years at that time.

And, even while it suffered from the economic and social devastation caused by World War II, the country rebuilt a democratic education system within a short period.

In this lecture, I will discuss two time-periods, the Meiji period when the modern education system was first introduced, and the period after World War II when the education system was revived.

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This is done to assist our understanding of the characteristics of Japanese educational development.

Finally, I will explain the features of Japan's international cooperation based on our experience of educational development in this field.

## **Section 2: Introduction of Modern Education System in Japan**

The Meiji Restoration of 1868 brought samurai ruled feudal government to an end. Japan began to establish a modern nation with the emperor at its center, and the Meiji Government used slogans of "civilization and enlightenment," "enrich the country, strengthen the military," and "encourage new industries)" to promote its modernization policies, aiming at catching up with western countries.

The most important policy was the introduction of a modern education system.

In 1872, only four years after the restoration, the new government issued "the Education System Order," Japan's first systematic education law. It was an extremely large and ambitious plan involving the establishment of 53,760 primary schools, 256 secondary schools and 8 universities throughout Japan.

Under the law, all children were required to attend primary school, regardless of gender, parental occupation or social status.

For the new government, the rapid introduction of a modern education system was not an easy project. It was a gigantic task to gain public understanding and support for the new school system, and as a result, it was subject to frequent fine-tuning and the enrollment rate repeatedly went through increase and stagnation phases.

Nevertheless, the compulsory education enrollment rate had reached around 50% by 1882—10 years after the Education System Order was issued—and finally 90% by 1902—30 years after the order was issued.

This means that Japan had almost achieved universal compulsory education about 30 years after the government decided to introduce a modern education system.

What were the features of this rapid expansion of modern education in the Meiji period?

To answer this question, I will discuss the following three points: first, the educational benefits from the Edo period; second, the introduction of systems and knowledge from overseas: and third, the achievement of national unity and the promotion of talented people through education.

The first point is that when the Meiji period began, Japan already had a traditional education system inherited from the Edo period. This provided an important foundation for introducing a modern education system to the country. Edo was the period that lasted about 260 years immediately before the Meiji Restoration. It was a time when Japan enjoyed long-term social stability and peace under a seclusion policy and the shogunate system.

Various educational institutions emerged during this time. There were fief schools to teach Chinese classics to sons of samurai in feudal domains, and private academies to teach Confucianism, Japanese classical literature and western studies to children and youths from the intellectual class.

In addition, a large number of popular learning centers called “terakoya” were established spontaneously in many cities, towns, and villages throughout Japan. In the terakoya, lower-class samurai, Buddhist priests or leaders of farmers taught children of commoners reading and writing, as well as the practical skills needed for daily living.

These institutions were secular and taught using the Japanese language as the sole medium of instruction. The literacy rate at the end of the Edo period is estimated to have reached 40-50% for male adults.

To implement the concept of a modern primary education system, many “terakoya” facilities, which had been everywhere in Japan, were renovated into primary school buildings and “terakoya” teachers were often employed as official teachers under the new system. Many fief schools and private academies were also converted to secondary schools.

There were already about 12,000 primary schools established by 1873, a year after the Education System Order was issued. Five years later, that number had reached 25,000, more than the current number of primary schools in Japan.

Thus, the educational legacies of the Edo period provided a firm foundation for the introduction of a modern education system across the country.

Second point is that the Meiji government actively introduced systems and knowledge from western countries. Educational resources inherited from the Edo period provided an invaluable foundation, but overall there were many issues to deal with in the creation of a modern education system. These included disparities and discrimination arising from the class system, a lack of systematization from primary to tertiary education, the absence of a unified curriculum, inconsistencies in the duration of education and learning content, the use of teaching methods only suitable for individual instruction, and insufficient examination and grading systems.

Therefore, the new Meiji government actively sought examples from western countries so

that it could properly establish a modern education system.

America was the model for the school system, which consisted of three levels of schooling; primary school, middle school and university. On the other hand, France was the model for the centralized system of educational administration and the system of school districts.

In higher education, European and American teachers were invited to Japan and given exceptionally high salaries to teach advanced knowledge from the west.

At the same time, the government sent distinguished young Japanese students to study in the United States, the United Kingdom, the Netherlands, Germany and Russia. These students came back to Japan after a number of years and replaced the foreign instructors. They taught in Japanese.

There were even some female students among them. Tsuda Umeko was one of these, going to the U.S. in 1871. She returned to Japan after fourteen years of study there and eventually founded "Tsuda University," one of the most famous women's universities in Japan.

The primary education system also adopted Western-style teaching content and methods. Teaching methods changed from individual instruction in "terakoya" to modern classroom teaching. Teachers mainly used directly translated or imitated textbooks of those widely used in the U.S., such as the "Wilson Reader." These translated or imitated textbooks cause confusion among teachers and pupils. However, as time passed, they were revised to be more suitable for the Japanese culture.

A certain number of private schools that provided education based on Christian or Buddhist philosophies also developed, but public schools delivered secular education, independent of specific religious beliefs.

Politically, Japan never became a Western colony. Therefore, the Meiji government was able to compare various western countries to select appropriate models as necessary when introducing a modern education system and educational content.

These systems and their content were localized to be more suitable to the conditions present in Japan and were gradually established in Japanese society.

The third point is the role education played in forming a common national consciousness and promoting talented people regardless of social classes in the Meiji period. At the time of the Meiji Restoration, many revolutionary social changes occurred, including the end of the samurai-ruled government and the existing social class system in the middle of diplomatic crises.

The new Meiji government placed the utmost importance on primary and higher education in order to build a new modern nation.

Through unified primary education, the government first aimed to promote widespread national consciousness and to strengthen the economic and military power of the state through civilian civilization and enlightenment.

Through higher education, they then tackled the task of nurturing new leaders for government and industries.

In the 1872 Education System Order, the educational philosophy of “learning is the key to success in life” was emphasized.

Fukuzawa Yukichi, one of the greatest intellectuals of the Meiji period, wrote “Gakumon no Susume” or “An Encouragement of Learning” in the same year. Fukuzawa insisted that: “any existing distinction between high and low, rich and poor, comes down to a matter of education,” and recommended learning regardless of one’s social status. The book became a bestseller.

While the disparities in wealth and educational level inherited from the social hierarchy of the Edo period did not disappear quickly, this philosophy of an “advancement in life” through education ignited people’s desire to learn and helped to promote the employment of talented individuals from the local society.

The ratio of commoners among the graduates from faculties of law and medicine of Tokyo Imperial University, currently the University of Tokyo, was 20-40% in the 1880s. On the other hand, the descendants of samurai families accounted for 60-80%. However, over time more commoners began to enter the university, and their ratio reached 60-70% around the end of Meiji period.

### **Section 3: Completion of the Modern Education System -Nurturing the People-**

A year after the promulgation of the Constitution of the Empire of Japan, the “Imperial Rescript of Education” of 1890 was issued. The rescript was a message from the Meiji Emperor outlining his educational policy. Emphasizing Confucian ethics, loyalty and patriotism, it had a profound effect on the morality of Japanese education and society until the end of World War II.

In Japan, light industrial private companies began to be established one after another around 1890; and heavy industries followed soon after the Russo-Japanese War in the 1900s.

Japan's industrialization advanced quickly. This created business activities within fields of manufacturing, mining, transportation, and finance and commerce. In this situation, demand also expanded for workers who had secondary or higher education as well as technical and vocational education.

To meet the skills manpower needs from industries, at the end of the 1890s, the government began establishing vocational schools at the secondary level and specialized schools at the higher level in the fields such as engineering, agriculture, commerce and medicine.

Thus, Japan saw the quantitative expansion of secondary and higher education.

During the Meiji period, focus was first placed on establishing primary and higher education. After light and heavy industries started to develop, secondary education expanded as the needs of human resources from industries increased.

The chart shows the increasing number of primary, secondary and higher students and the level of economic development from the 1870s to the 1920s. We can observe a strong correlation between the development of secondary education and that of the mining and manufacturing industry.

The development of a modern education system in Japan was almost completed around the year 1920.

Higher education to educate the elite, secondary education to develop mid-level skilled workers, primary education to teach all citizens, and normal school education to form teaching professionals for each level were linked together, and Japan's public education system began functioning as an integrated whole.

The main characteristics of this education system, which lasted until the end of World War II, was that while there was only one type of primary education institution called "an ordinary elementary school," there were many different types of schools in secondary and higher education.

The choice of schools in secondary and higher education corresponded to students' future paths, and once students had chosen a type of school, it was difficult for them to change their career paths. This was a multi-track education system.

As personal income increased, more people wanted to advance to secondary and higher education, and entrance examinations to some secondary schools became fiercely competitive.

## **Section 4: Postwar Reconstruction of Education and Further Development**

**(1945-approx.1960)**

In the 1930s ultra-nationalist trends increasingly became discernible in Japanese education policies. Following Japan's entry into the Sino-Japanese war, militarist education was further strengthened.

Military training was conducted in secondary and higher education, and textbooks were changed to government-designated ones with a militarist content. In the final stages of World War II, teachers and university students were drafted for military service and many secondary school students were mobilized to farming villages and factories to produce additional foodstuffs and military supplies.

About 400,000 children in cities were also separated from their parents and evacuated to remote villages in order to avoid air raids by the US air force.

At the end of the war in 1945, the Japanese school system had been almost completely destroyed.

In August 1945, Japan accepted the Potsdam Declaration and surrendered unconditionally to the Allied Forces.

Its major cities had been destroyed by air raids, and many school buildings had been burned down or damaged. People suffered from starvation and malnutrition, and there were many orphans who had lost their parents in the war.

However, schools reopened in September of that year, with classes being held in multiple shifts in damaged school buildings or outside in the school grounds. The same textbooks were used, but by covering the militarist and ultra-nationalist expressions with black ink.

The occupation of Japan by the Allied Forces lasted for 6.5 years between 1945 and 1952, and Japan was placed under the indirect rule of the General Headquarters of the Allied Forces (GHQ). The aim of GHQ's initial occupation policy was de-militarization and democratization, and postwar education reforms were carried out in accordance with this policy.

In 1946, the U.S. Education Mission, a group of 27 eminent American education experts visited Japan at the request of GHQ. The mission worked together with a committee of Japanese education specialists. The group advised on education reforms based on democratization and equal opportunities, and many of their recommendations became the guidelines of postwar education reforms.

The Constitution of Japan and the Basic Act on Education, enacted in 1946 and 1947 respectively, played the most important role in establishing a democratic education system

to replace the earlier model. The constitution listed the “right to receive an equal education” as a fundamental human right.

Together with the Basic Act on Education and a series of other education-related laws, the framework of the post-war education system was thus formed.

First, there was a shift to a single-track system; second, compulsory education was expanded to nine years; third, the principle of co-education of boys and girls was adopted; fourth, boards of education at the prefectural and municipal levels were established; fifth, teachers’ colleges were abolished and a university-based teacher training system was established.

The prewar modern education system that was completed around 1920 was a multi-track education system in which various types of secondary schools branched off after single track primary education.

On the other hand, this new system was a single-track system from start to finish. Four years of university education was placed after six years of primary school, three years of junior high school and three years of senior high school. This opened the door to a university education for all senior high school graduates.

Secondary schools and universities became co-educational. In addition, using the “Courses of Study,” a U.S. teacher’s guidebook as a model, Japan’s original Courses of Study concerning educational content were created as guidelines for setting up curricula and formulating textbooks.

All these new developments in the education system reform were decided within a few years after the end of the war, but it was not an easy task to fully implement them.

In particular, establishing junior high schools, which hadn’t existed in the framework of the prewar system, was extremely difficult. As a result, about 50% of the necessary classrooms for 3.2 million junior high school students were lacking throughout Japan when the new system began in 1947. Most junior high school education had to be conducted using classrooms in primary schools or held in multiple shifts.

Under the new school system, primary schools and junior high schools opened in 1947, senior high schools in 1948, and universities between 1948 and 1949 respectively.

How did the enrolment rates change of these schools which opened during the post-war period of turbulence?

The official enrolment rates of primary school, which had been compulsory before the war, and junior high school, which became compulsory after the war, were both nominally over



99% in and after 1950.

However, the real attendance seems to have been much less than 99% as there were a certain number of long-term absentees through poverty. In 1946, school health programs started to combat diseases, in particular tuberculosis and parasites which were sweeping Japan after the war.

In 1947, a school lunch program to improve children's nutrition also started, using donated food supplies from foreign voluntary relief organizations and the wheat flour and powdered skim milk sent by UNICEF and the US government.

Furthermore, in the 1950s, aiming at encouraging school attendance for children with financial difficulties, and improving enrollment in mountainous areas and remote islands, various laws were enacted.

Due to these policies and measures, and rapid economic growth in the 1950s, universal attendance was gradually achieved around the year 1960. At the higher levels, the enrolment rate of senior high schools was around 45% in 1950 immediately after the school were reorganized in the post-war education system. This rate increased rapidly in the 1960s, exceeding 80% by 1970. This means that the senior high school enrolment rate had doubled in 20 years. The higher education enrolment rate also increased from 10% in 1960 to 18% in 1970.

Post-war Japan experienced rapid economic growth between the mid-1950s and the early 1970s. Due to this, the Japanese economy grew at an average of 9 percent annually and this quickly brought prosperity.

At that time, the industrial structure shifted from primary to secondary and tertiary industries, and the population moved from rural villages to urban cities.

Until around 1960, successors of family businesses were trained within the family concerned or their local communities, but after the decline in primary industry activity through rapid economic growth, many people saw schooling as the key to a successful future career.

As well as the increase in income levels from economic growth, these changes in social structures and people's awareness of education improved the senior high school enrollment rate, and then brought a rapid increase of the enrollment rate of universities and junior colleges. People began to place more importance on their academic qualifications, but this also brought the negative aspect of excessive competition in entrance examinations.

So far, I have explained how education changed in Japan during the Meiji Revolution and after defeat in World War II, two events that caused the largest social changes in the 150

years of history after the Edo period. These two events have totally different historical backgrounds, yet seem to have some commonalities.

These are: first, boldly adopting foreign systems and values to create new education systems; second, adjusting the procedures of localization in Japanese society after adopting systems and values from overseas; and third, the development of new education systems that contributed to the improvement of people's mobility and the expansion of their potential during social reforms.

However, Japan has not only learnt from other countries' experiences for its own educational reforms, but it has also been sharing its educational experience with developing countries and contributing to the overall development of these countries.

Next, I would like to discuss Japan's Official Development Assistance (ODA) in the field of education.

## **Section 5: Japanese Educational Cooperation with Developing Countries**

"The prosperity of a country, the growth of cities, everything depends on people. Build schools and develop people's ability."

This is a phrase in a theatrical play based on a true story in Japan. In this story, the Nagaoka Domain, now the city of Nagaoka in Niigata Prefecture, suffered from poverty during the civil war of the Meiji Restoration.

When one hundred sacks of rice were sent as relief goods, the domain decided not to consume the rice but to sell the sacks and use the proceeds to build a school to develop future human resources.

This phrase was referred to as the "Spirit of the One Hundred Sacks of Rice" in the preface of the Japanese government ODA policy on education in 2003. Japan has implemented ODA as its responsibility to the global community since 1954, not many years after the end of World War II. Japan's ODA has focused on educational cooperation.

An investment in education based on self-help symbolized by the "Spirit of the One Hundred Sacks of Rice" is seen as the most effective way to reduce poverty. It also effectively promotes sustained economic growth in developing countries.

So, before closing today's lecture I would like to introduce Japan's ODA programs in the field of education.

The first area is the cooperation we extend to support the establishment and improvement of universities in developing countries. Universities must strive to develop leaders of the

future; and for this reason, Japan has continuously supported higher education in developing countries ever since the early stages of ODA.

Our cooperation spans a wide range of activities from curriculum development, the quality improvement of lectures and research, joint research with Japanese universities, and equipment and facility development, to university administration.

And it has been mainly in engineering, agriculture and medical science programs. Japan has provided this type of support to over 500 universities around the world, with some notable successes. There are cases of universities, such as the King Mongkut's Institute of Technology Ladkrabang of Thailand, and the Jomo Kenyatta University of Agriculture and Technology of Kenya, that have become top universities in their respective countries after receiving support from Japan over a long period of time.

The second area is cooperation that contributes to the improvement of science and mathematics education at primary and secondary schools. For the developing countries to advance it is necessary to greatly improve basic education levels for all citizens.

Many countries want Japan to provide support in the areas of science and mathematics due to its expertise in these subjects. In the projects, we support for the improvement of science and mathematics education, the development of practical teaching methods that can be used in the classroom, the improvement of pre-service and in-service teacher training, and the development of textbooks and teachers' guides are the main areas covered.

In most cases, Japan's own experiences with educational development, such as enhancing the quality of teachers, Japanese-style teacher training, and high-quality Japanese educational materials, are used as reference material.

The third area is in cooperation that is aimed at building primary schools and improving school management in order to achieve quality education.

Primary education in developing countries has rapidly expanded during the last half century, and Japan has supported the building of schools to accommodate the increasing number of students.

In addition, primary schools must be managed appropriately by school principals and teachers with the cooperation of the local community and local education administrations. Everyone must work together to provide high quality education each day.

In the projects to improve school management, various activities including education for girls, supplementary classes for the improvement of academic achievement, school lunch, social and emotional skills development are combined and implemented together.

The fourth area is cooperation to establish or improve technical and vocational high school and colleges to develop industrial human resources.

The development of mid-level skilled workers or technicians mainly at the secondary level is crucial for industrial development. Therefore, this group has been one of the main pillars of Japan's educational cooperation for a long time. Its strength is in the development of skilled workers and technicians that are competent on production sites.

The interest in Japanese National Institute of Technology called "Kosen" has been increasing in recent years among developing countries.

These are the four main areas of Japan's educational cooperation, and in many cases, the previous educational experience of Japan itself is utilized within them.

During each project, Japanese experts in the field of education visit the sites and convey their skills and experience to their counterparts in the receiving countries.

I would like to add that Japanese experience is always localized through the initiatives of the counterpart administrations depending on the conditions in their country. Therefore, the key to success is adjustment to the actual local condition.

"The request-based approach" is one of the central principles of Japan's ODA. This is the policy that Japan's ODA is to be implemented based on requests from recipient countries, respecting their ownership while expecting self-help effort.

The representative educational cooperation of Japan, which I have just introduced, has also been requested by developing countries. This means that our education cooperation programs highlight the areas of strength within Japan's education system, as seen from the developing countries. These include, as I mentioned earlier, primary and secondary level science and mathematics education, teacher training and professional development, school management, university education in the fields of engineering, agriculture, and medicine, and technical and vocational education and training.

However, during the process of localizing the Japanese experience in developing countries, we can also see where Japanese methods may be insufficient or inadequate. International cooperation is thus also a mirror which reflects Japan's strengths as well as its weaknesses.

Thank you very much for listening.