

EDUCATION

Foundation for growth and prosperity



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Japan's education system played a central role in enabling the country to meet the challenges presented by the need to quickly absorb Western ideas, science, and technology in the Meiji period (1868–1912), and it was also a key factor in Japan's recovery and rapid economic growth in the decades following the end of World War II.

In the early years of the 21st century, however, Japanese society is facing many challenges as a result of changing cultural norms, advances in science and technology, economic globalization, and a difficult business environment. Nurturing young people who can meet these challenges is a critical task for Japanese education. The direction to be taken in this endeavor is the subject of much debate in the government, the education community, and Japanese society as a whole.

History

Education in reading and writing has of course existed in some form since the introduction of Chinese writing and Buddhism in the 6th century. In 701, the Taiho Code established schools for the children of the nobility, in both the capital and the provinces. Beginning in the Kamakura period (ca. 1185–1333), an increasing number of the children of the samurai received a formal education, but it was not until the 265 years of peace of the Edo period (1603–1867) that education became widespread among both the elite and the common people.

Education in the Edo period was primarily based on Confucian concepts that emphasized rote learning and study of the Chinese classics. Two main types of schools developed. The first type was the domain



schools (*hanko*), which totaled around 270 by the end of the period and provided education primarily to children of the samurai class. The second type was the *terakoya* schools, which enrolled the children of commoners as well as samurai and concentrated on moral training and teaching reading, writing, and arithmetic. *Terakoya* were usually run by a single teacher or a married couple, and there were tens of thousands of these schools in existence at the end of the Edo period.

Japan's literacy rate at the time of the collapse of the Tokugawa shogunate in 1867 was higher than that of many Western nations at the time. Without this educational foundation, the rapid modernization achieved in the following years would not have been possible.

Meiji leaders moved quickly to put a new educational system into place as a key part of their efforts to catch up with the West and promote national unity. A three-tier system of primary school, middle school, and university was established, with primary school being compulsory for both boys and girls.

Following the end of World War II, the Fundamental Law on Education and the School Education Law were enacted in 1947 under the direction of the Occupation forces. The latter law defined the system that is still in use today: six years of elementary school, three years of junior high school, three years of high school, and two or four years of university. Elementary and junior high school attendance is compulsory. There are also kindergartens (attended by children aged 3 and above, prior to entering elementary school), five-year technical colleges for junior-high-school graduates, special training schools for junior-high- and high-school graduates, and special schools for handicapped persons. Universities include undergraduate colleges, junior colleges, and graduate schools.

Schools and Curricula

School calendar: For most elementary, junior high, and high schools, the school year in Japan begins on April 1 and is divided into

three terms: April to July, September to December, and January to March. Some schools follow a two-term schedule. The gradual transition from a six-day school week to a five-day week was completed in 2002. Many private schools, however, continued to hold Saturday classes, and in recent years some public high schools have obtained special permission to reintroduce Saturday classes to give them more time to cover the necessary subjects.

School course guidelines: The Ministry of Education, Culture, Sports, Science and Technology prepares guidelines containing basic outlines of each subject taught in Japanese schools and the objectives and content of teaching in each grade. Revised every 10 years or so, these guidelines are followed by schools nationwide.

School textbooks: All elementary, junior high, and high schools are obliged to use textbooks that have been evaluated and approved by the Ministry of Education, Culture, Sports, Science and Technology. The purpose of the official authorization system, which has been in effect since 1886, is the standardization of education and the maintenance of objectivity and neutrality on political and religious issues. A system of free distribution of textbooks for compulsory education was established in 1963. The textbooks used in each public school district are chosen from among government-authorized candidates by the local board of education based on a review by the prefectural board of education. At private schools, the school principal is responsible for the choice.

Pre-school education: Education prior to elementary school is provided at kindergartens (*yochien*) and day-care centers (*hoikuen*). Public and private day-care centers accept children from under age one up to age five; their programs for children age three to five resemble those at kindergartens.



Approximately 60% of all kindergartens are privately operated. The combined attendance of five-year-olds at kindergartens and day-care centers exceeds 95%. The educational approach at kindergartens varies considerably, from unstructured environments that emphasize play and provide little formal instruction to highly structured environments that are focused on mental training.

Elementary schools: Attendance for the six years of elementary education is compulsory. Ninety-nine percent of elementary schools are public coeducational institutions. A single teacher is assigned to each class and responsible for instruction in most subjects, with the exceptions generally being subjects such as music and art. In 2011, the maximum class size at a public elementary school was 35 for 1st-grade classes and 40 for other grades. In principle, classes are not segregated based on student ability, but for instruction in certain subjects students might be divided up into groups taking proficiency level into account. The curriculum includes the following subjects: Japanese language, social studies, arithmetic, science, life environmental studies, music, arts and crafts, physical education, and homemaking. Requirements also include extracurricular activities, a moral education course, and integrated study, which can cover a wide range of topics (international understanding, the environment, volunteer activities, etc.). Reading and writing are perhaps the most important parts of the elementary school curriculum; in addition to the two Japanese syllabaries, students are expected to learn at least 1006 Chinese characters by the end of the sixth grade.

Junior high schools: Attendance for the three years of junior high school education is compulsory. More than 90 percent of junior high schools are public coeducational institutions. Each year students are assigned to a homeroom with a maximum of 40 students (the average class size in 2016 was 28.0), with whom they take their classes. For the most part, classes are not segregated based on ability, but some schools have implemented streaming systems for math and

English classes. The standard curriculum includes the following required subjects: Japanese language, social studies, mathematics, science, a foreign language elective (almost always English), music, fine arts, health and physical education, and industrial arts or homemaking. Requirements also include extracurricular activities, a moral education course, and integrated study.

High schools: High school attendance is optional. In 2010, 98% of all junior high school graduates entered high school, and about 74% of all high schools were public. High school entrance is based on exam performance and the competition is intense for favored schools. Students attending unified junior high and high schools avoid the high school entrance exam pressure, but there are still relatively few such unified schools in the public school system. The high school core curriculum includes the following required subjects: Japanese language, geography and history, civics, mathematics, science, health and physical education, art, foreign language, home economics, and information. Extracurricular activities and integrated study are also required. Students in special vocational programs also take courses in their area of study (business, industrial arts, agriculture, etc.) while spending less time on the core curriculum than regular students.

With almost all junior high school students now going on to high school regardless of their desire and willingness to learn, high schools are looking for ways to reduce student apathy and the number of dropouts. As part of this effort, new and more diverse models of high school education are being introduced to better respond to the different abilities and interests of individual students. Examples of such new models include credit-based high schools, where graduation is based on accumulated credits rather than completion of a set number of full academic years, and integrated-program schools, where students have more flexibility to take electives based on their individual interests and abilities.

Universities: The percentage of Japanese high school graduates going to either a two year junior college or four-year university passed 41% in 1993 and stood at 54.7% in 2016. The figure for four-year colleges and universities alone was about 49.6% in 2016. The great majority of junior college students are women. 85.7% of all universities and 95% of all junior colleges are private. In fiscal 2016, 10.9% of four-year university graduates went on to graduate school.

An extensive series of reforms was recently implemented in the Japanese university system, with the changes to the national university system being particularly drastic. In 2004, the 99 national universities were reorganized into 89 institutions. In addition, the national universities—which had been internal organs of the Ministry of Education, Culture, Sports, Science and Technology—were transformed into independent administrative institutions with the objective of creating a more competitive and independent environment in which the universities can introduce private sector management techniques and develop their own special strengths with respect to both education and research. In order to nurture people with the wide range of expertise needed by society, many universities have also established new specialized graduate school programs in both business and law.

The number of foreign students at Japanese universities continues to increase, with the total studying at pre-education schools, colleges of technology/specialized training colleges, junior colleges, universities, and graduate schools standing at 239,287 as of May 2016. Approximately 93% of these students are from Asia.

Tutoring schools and cram schools: Although they are not part of the core educational system, academic tutoring schools (*gakushujuku*) and cram schools (*yobiko*) also play a significant role in education in Japan. The cram schools focus strictly on preparing students for university entrance examinations. The academic tutoring schools have a more general goal of helping students keep up with and go beyond their regular school work, although exam preparation is frequently emphasized.

According to estimates in fiscal 2008 by the Ministry of Education, Culture, Sports, Science and Technology, academic tutoring schools are attended by 25.9% of public elementary school students and 53.5% of public junior high school students.

The Challenge of Reform

The Japanese educational system lays emphasis on cooperative behavior, group discipline, and conformity to standards. It served the country well in producing the skilled industrial workforce that made Japan a global economic power in the 20th century. The success of the system is further reflected in the fact that the great majority of the Japanese people consider themselves middle class and see education as the road to prosperity for their children.

In 2006 the government passed the first-ever revision to the 1947 Fundamental Law of Education. This revision included provisions calling for education to instill public spiritedness, respect for tradition and culture, and love of country. The curriculum guidelines were also revised in 2008 to enhance fundamental education by fostering basic knowledge and skills, and to expand class hours. The new curriculum guidelines were introduced in the 2011 school year for elementary schools and in the 2012 school year for junior high schools.

In 1949, Yukawa Hideki became the first Japanese Nobel laureate, winning a physics prize for predicting the existence of mesotrons. He was followed by Esaki Reona with a physics prize in 1973, Tonegawa Susumu a prize for physiology or medicine in 1987, and Oe Kenzaburo a literature prize in 1994. More recently, Japanese have won Nobel prizes one after another in the natural science area. In 2002, Koshiba Masatoshi of the University of Tokyo won a physics prize, Suzuki Akira of Hokkaido University and Negishi Eiichi of the University of Tokyo chemistry prizes in 2010, and Yamanaka Shinya of Kyoto University a prize for physiology or medicine in 2012 for the development of the iPS cell. In 2008 and

2010 alone, a total of six Japanese were awarded physics and chemistry prizes, the highest honor for natural scientists, highlighting Japan aiming at becoming a world leader in science and technology.

Japanese researchers have continued to win Nobel prizes in the 2010s. Akasaki Isamu and Amano Hiroshi of Nagoya University won the physics prize in 2014, followed by Kajita Takaaki of the University of Tokyo who won the same prize in 2015. Omura Satoshi of the Tokyo University of Science won the prize for physiology or medicine in 2015, followed by Osumi Yoshinori of the Tokyo Institute of Technology who won the same prize in 2016.