Japanese Companies’ In-house Education in the Post-War Period: Educational Qualification and Personnel Management

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Abstract
During the late nineteenth century, the Japanese government established the bureaucrat appointment system based on educational qualification. Large private companies also adopted the personnel management system in which employees’ working conditions and career paths were determined by their educational qualifications. It was during this period that “school culture” started to become the dominant force in human resources development in Japan.

On the other hand, it had also been widely understood that the traditional apprenticeship system maintained among craftsmen would not be able to produce workers capable of handling new technologies introduced from the West. The influence of “shop culture” on human resources development was only trivial in Japan.

However, company managers did not place a high evaluation on Japanese education, and in particular university education’s ability to develop human resources.

It was in-house education provided by private companies that complemented the lack of shop culture and the malfunction of school culture. In-house schools dealt with in this study were for high school graduates. This type of in-house schools was established by many large companies during the 1960s, producing second important core workers after those with university qualification.

Keyword: in-house training, employees’ ability development, educational qualification, Tokyo Electric Power, Hitachi Technical College

I. Introduction
It is a common recognition in many countries that improvement of employees’ ability is a key to company development. While various attempts have been made for that purpose around the world, it has been held that in Japan in-house training which each company implements at its own initiative plays the most important part in employees’ ability development. At the basis of this emphasis on the importance of in-house training lays the recognition of a characteristic of Japanese companies’ personnel management: that is, long-term employment, referred to as “shūshin koyō [lifetime employment].” It has been understood that lifetime employment is closely connected to Japanese companies’ recruitment practice of employing juveniles immediately after their graduation from
schools. (Sugayama 2011, 445-455). Because they have no work experiences, companies have been considered to have the necessity to develop their young workers’ ability at their own initiative.

With regard to Japanese companies’ personnel management and in-house training, there is another important point that has been rather neglected by many researchers. Since the latter half of the nineteenth century, educational qualification has been the basic criterion for personnel management at Japanese companies. Under such circumstances, in-house training has given employees with low educational qualification routes to climb up their companies’ career ladders. According to Peter Lundgreen, apprenticeship and OJT had long been the standard training system for engineers, and entrepreneurs and self-employed experts have been main members of engineers’ organizations in Britain and the United States. By contrast, he argues, in such bureaucratic states as Germany and France, academic engineering education has been linked to the recruitment of state engineers and, in the private sector as well, school transcripts have been the requirement for the membership of engineers’ associations (Lundgreen 1990, 34-36). From this perspective, it is no wonder that the case of modern Japan, that was made into a thoroughly bureaucratic state, is similar to those of Germany and France. Rather, it can be said that the characteristics recognized in Germany and France are more salient in Japan. In order to avoid the risk of appointing incompetent persons to the positions of government officials through the pre-modern recruitment method based on the feudal family system, the Meiji government established the standard bureaucrat appointment system based on educational qualification and examination. In the meantime, large private companies, which were in rivalry with the public sector in their acquisition of human resources, adopted a personnel management system, referred to as “gakureki mibun-seido [a status system based on educational background],” in which tertiary education graduates, secondary education graduates and elementary education graduates were hired as senior employees, junior employees and “shokkō [workmen],” respectively (Ichihara 2016).

Because educational qualification was an indicator of knowledge concerning Western laws, societies and technologies, the employment and personnel management system based on that had a certain degree of validity not only for government bureaucrats whose task was to build a modern state but also for company employees tasked with technological development and business management. However, the system also produced problems. Many people repeatedly pointed out that school education did not necessarily have relevance to actual work. Questions were raised against economic rationality of employing and promoting people on the basis of their school achievements. In addition, discontent intensified among those young factory workers who had not been able to receive higher levels of education despite their excellent achievements at elementary schools due to their parents’ financial conditions. It was also considered unreasonable not to be able to make full use of such factory workers’ high potential.

These facts indicate that Culvert’s argument about the confrontation between “shop culture” and “school culture” regarding the training of mechanical engineers in the United States has relevance to the Japanese experience as well. Although mechanical engineers in the nineteenth-century United States were trained through OJT which began with the apprenticeship training, more and more people placed high value on technological education provided at engineering schools, criticizing the traditional training based on the apprenticeship system, as the number of such schools increased. In response, the defenders of “shop culture” refuted the criticism from the “school culture”
Culvert draws attention to the fierce controversy between them (Culvert 1967, 3-40 and 63-85). In Meiji Japan, engineering and other knowledge crucial for the development of modern state and industry were imported from Western countries, and taught at educational institutions. It is natural to suppose, therefore, that school culture became predominant from the beginning of its industrialization in Japan as well as in any developing country. However, the type of criticism against school culture highlighted by Culvert was a rather widely held view also in Japan.

After the end of WWII, Japan was occupied by the Allied Powers led by the United States, and democratic institutions were introduced. Trade unions were legalized, and labor organization developed rapidly. Most trade unions thus established demanded the abolition of the “status discrimination” between senior and junior staff and workmen, and most of their requests were met. It was once a predominant view that through such reform the so-called Japanese-style management was established under which both white and blue-collar workers united with a strong sense of solidarity.

However, this view is not supported by facts. It was widely recognized at the time that despite the reform, the personnel management system remained unchanged: Employees were assigned to their jobs on the basis of their educational qualification, and their career paths and working conditions were determined accordingly. For instance, Ōhara Sōichirō, President of the Kurashiki Spinning, remarked in 1963 that the lifetime employment system based on the seniority principle remained almost the same as in the pre-war period (Ōhara 1967, 3). In addition, Nishikawa Tadashi, a leading personnel management officer at the NKK, asserted in 1967 that the unions’ demand for the abolition of the demarcation between staff and workmen was in fact no more than a request for renaming, bringing about no crucial change to the conventional personnel management system (Nishikawa 1967, 25). This recognition was more emphatically expressed in an OECD report made public in 1971. Referring to Japan as a country of “degreeocracy,” the report concluded that the result of an entrance examination at each level of education would decide the class to which a person was to belong, and that a person’s position in the social hierarchy was determined by the length of education he had received and the social reputation of the school from which he had graduated. Therefore, the report stated, to pass the entrance examination meant “rebirth” in Japan (OECD Kyōiku Chōsadan 1972).

In-house education provided by private companies was expected to rectify problems deriving from the personnel management system closely tied to educational qualification. One of its main aims was to give those talented employees who had not been able to receive higher levels of education because of their parents’ financial difficulties opportunities to enhance their social statuses and improve their economic situations. In-house education also aimed at teaching their employees practical knowledge for their jobs that school education had not sufficiently provided. According to the above-mentioned OECD report, what the Japanese government and companies expected of schools was their selecting function. The report said that the conveyance of knowledge was of secondary importance for Japanese education, as was clearly shown in the fact that education

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1 As for the actual situation of the personnel system reform at Japanese companies, see Ichihara (2012).
and training provided inside companies and government offices had been playing a crucial role (OECD Kyōiku Chōsadan 1972).

Although private companies’ in-house education has played above-mentioned roles since the pre-war period, this study focuses mainly on in-house schools for high school graduates established by a number of large companies during the 1960s. That is because such in-house schools have been a neglected research subject in spite of their important characteristics. Their characteristics changed from the previous period, since in-house schools during the 1960s sought to produce a different type of employees than in the previous period.

II. Educational Qualification and In-House Education

The close connection between educational qualification and companies’ personnel management has affected the content of the post-war in-house education to a large extent. The education for newly hired employees and that for those at managerial positions were two focal points of post-war in-house education provided by private companies. Nakayama Saburō, Head of the Education Department of the Japan Federation of Employers’ Association, remarked in 1967 that conventional in-house education, referred to as “kyōiku kunren [educational training],” consisted mainly of Off-JT training provided only for new employees and managers/supervisors (Nakayama 1967, 71). According to All Japan Federation of Management Organizations Human Faculty Development Center, while large companies established and developed the system and facilities of in-house education during the latter half of the 1950s, emphasis was laid not so much on the training of practical skills as on the long-term development of human resources through the entire careers of employees (Zen’nihon Nōritsu Kyōkai Ningen Nōryoku Kaihatsu Center 1981, 9).

The content of in-house education was different, depending on the educational qualifications of employees. The difference was most evident in companies’ education for new employees, the starting point of in-house education. According to a survey on education for new employees published in Rōsei-jihō [Labor administration news report] in 1951, the content of education was largely different between high school, or junior high school, graduates who were assigned to factory work, or to assisting work at the office, and university graduates who were assigned to technical work, or to office administration work. In the former case, new employees received education for two to four months at workplaces to which they were deployed. Whereas, in the latter case, they received education for six to twelve months, experiencing various jobs at various workplaces. This difference reflected the difference in what their companies expected of them. Companies taught university graduates knowledge about all the operations concerning their business in order to train them into future managers and administrators. It is pointed out in the survey that university graduates were appointed to higher positions from the outset (Rōmu Gyōsei Kenkyūsho 1951, 28-30). An article published in Rōsei-jihō in 1952 explains that university graduates were given more extensive education than secondary school graduates, because they were employed as executive candidates. In the pre-war period, the article explicates, large companies gave new university graduates systematic education for six to twelve months, teaching them relationships between the section to which they were deployed and the other sections of their companies so that they would be able to carry out their tasks whatever sections they were transferred to. According to
the article, university graduates in the pre-war period were free from “sectionalism,” and therefore they did not selfishly insist on the priority of their work. The article also reports that many companies were planning to resume the education program, which had been interrupted by the War, in the coming spring (Rōmu Gōsei Kenkyūsho 1952, 20).

The policy to recruit university graduates as manager candidates, and secondary school graduates as practical workers and to provide different educational contents for them, remained unchanged even during the mid-1950s. According to a survey on education for new employees covering more than seventy companies, conducted in fiscal 1954 and fiscal 1955, university graduates were divided into a group of clerical workers and that of technical workers, and practiced operations at each section of the factory for three months to three years as manager candidates. On the other hand, high school graduates practiced operations only at the workplace to which they were deployed, and the length of their education was much shorter than university graduates: one month on average (Rōmu Gōsei Kenkyūsho 1956, 2-5).

As has been elucidated above, educational qualification was the basic criterion for recruitment, personnel management and in-house education. However, that did not necessarily mean that companies’ executives and managers placed a high evaluation on Japanese education, especially university education. In fact, they repeatedly criticized the content of university education.

Japan’s educational reform was implemented on the model of the U.S. educational system during the occupation era. During the pre-war period, the standard educational course comprised elementary school (six years), junior high school (three years), high school (three years) and university (three years). Apart from that standard course, there existed two other courses: one was to enter polytechnic school (three years) after graduating from junior high school; the other was to enter vocational school (five years) after graduating from elementary school. Polytechnic schools provided higher education concerning industrial technology, commerce and agriculture, and at the time were regarded as higher education institutions next to universities. Vocational schools provided elementary school graduates with general education of industrial technology, commerce and agriculture, and were regarded as secondary education institutions. Under the GHQ’s guidance, such multi-track educational system was reformed into the single-track system consisting of elementary school (six years), junior high school (three years), high schools (three years) and university (four years) (Ichihara 2016).

The GHQ severely criticized the content of pre-war education. Various propositions were addressed in a report made by the US industrial education advisory group in 1951. The report presented an incisive view that although the purpose of engineering education was to cultivate creativity and ability to apply basic knowledge for the solution of specific problems, the Japanese way of industrial education was only forcing students to take notes of what their teachers said and to remember that for the end-of-term examination (America Gasshūkoku Kögyō Kyōiku Shisetsu-dan 1952).

Japanese company managers’ deep dissatisfaction with the content of Japanese education after the educational reform was expressed in their views on Japan’s industrial education. The Japanese Society for Engineering Education established in 1952 held a number of conferences around the country in which businessmen and educators of industrial education discussed over how to improve technical education in Japan. The content of such discussions, together with opinions of business
managers and educators, was published in the Society’s bulletin, *Kōgyō Kyōiku* [Industrial education]. Those articles in the bulletin are filled with discontent and requests. Niwa Kaneo, President of the Mitsubishi Shipbuilding, raised questions about the way in which specialized education of industrial technology was conducted in Japan, claiming that there were teachers who only gave lectures and made students take tons of notes, giving them no opportunity to ask questions, or express their own opinions. What they should be doing instead was, he insisted, to give their students opportunities to use their abilities to reason, judge, create and apply in order to achieve the educational aim of cultivating the ability to apply basic knowledge with creative thinking ability (Niwa 1953, 11). In the same issue of the bulletin, Miyagi Otogorō, Honorary Professor of the Tōhoku University, expressed regrets over his past educational practice, stating that traditional industrial education was only “classroom education.” According to him, school education and the real situation at actual workplaces were two different things. He maintained that students were obtaining abstract knowledge that existed only on paper, or in outdated models, without understanding anything about the real industry (Miyagi 1953, 13).

Similar criticisms against traditional industrial education continued to be made even during the 1960s. For instance, in a roundtable discussion published in the 1961 issue of *Kōgyō Kyōiku*, Kawara Ryosaburō, a director of Toshiba, claimed that Japanese people, in particular the younger generation, who had studied and become attracted to theories at school, tended to look down on practical operations at actual workplaces because they seemed unimportant to them. By contrast, he gave praise to college graduates in Europe and the United States, because they enthusiastically coped with even seemingly trivial jobs without complaint (Panel Discussion September 1962, 48). During the panel discussion published in the 1964 issue of *Kansai Keikyō*, Tomihisa Rikimatsu, President of the Tōyō Rubber, argued that although the development of new products was becoming more and more important under the circumstances of trade and capital liberalization, education for that purpose was not being provided. In his view, the focus of Japanese education was laid on forcing students to review and memorize existing knowledge (Panel Discussion 1964, 30).

As has been shown, although much importance was laid on educational qualification in terms of personnel management, company executives were deeply dissatisfied with university graduates’ abilities. As a whole, they were regarded as those who had acquired theoretically advanced, practically useless knowledge at their universities, but looked down on practical jobs at workplaces. Although they were promoted to managerial positions relatively early, their ability to supervise factory workers was often questioned. In 1956, Konuma Takeshi, Head of the Material Department of the Hitachi Plant, candidly remarked at a symposium held by the Kantō Industrial Education Association that engineers with university qualification were not good at managing factory workers under their supervision, being unable to grasp their sentiment well (Panel Discussion 1956, 40).

III. The In-House School Establishment Boom during the 1960s

During the 1960s, problems with the personnel management system based on educational qualification became more serious than before, as an increasing number of high school graduates became workmen. Previously, most of the workmen had been junior high school graduates. The change has been explained by the increase in the proportion of junior high school students...
proceeding to high schools, and also by companies’ necessity to respond to technological innovations at the time. The rate of male junior high school graduates proceeding to high school was 56 percent in 1956. It rose rapidly during the 1960s, exceeding 70 percent in 1964 (Koyōkanri Kenkyū-kai 1969, 31 and 33). Therefore, it became increasingly difficult for companies to recruit junior high school graduates. Companies were also troubled by the decline in the quality of junior high school graduates as a workforce. At the same time, as automatic machines, the conveyor system and the mass production system were introduced, accelerating the economic growth, many companies felt the need for intelligent workmen capable of handling such new technologies. Under those circumstances, high school graduates became expected as a source of such workforce (Shokugyō Kunren-shi Kenkyū-kai 1972, 160-162).

However, the employment of high school graduates brought its own problems. Company managers expressed their deep concern over the moral and motivation of high school graduates employed as workmen, an occupation that had long been regarded as one for elementary school graduates since the pre-war period (Panel Discussion February 1962, 12-21). An attitude survey on workmen with high school qualification revealed that, with a lack of confidence in their occupations and a sense of alienation and loneliness, they felt as if their high school graduation certificate was a transformed social status. According to the survey, they had only a weak sense of belonging to their companies due to their discontent with their working conditions and prospects for promotion. They tended to find, the survey says, the meaning of their lives not so much in their work as in their family lives (Koyōkanri Kenkyū-kai 1969, 40-46).

Kosaka Tokusaburō, then President of the Shin-Etsu Chemical, who later became a politician and candidate for the Prime Minister, expressed grave concern over consequences this sense of alienation would bring not only to the running of companies but also to the Japanese society at large. Quoting the Heibonsha president’s remark that high school students not planning to go to universities were treated differently from those planning to go from the very first day of their high school lives, Kosaka maintained that their sense of inferiority consolidated during the three years of their high school lives would not disappear even after they were employed by companies. In his view, they were so nihilistic that they found the significance of their lives only after their day jobs were over. Capitalizing on such situation, Kosaka alleged, the youth organization of the Japanese Communist Party was organizing them. Kosaka went so far as to say that it was rather natural for angered high school students to beat up their high schools’ presidents after graduation ceremonies (Kosaka 1966, 10). His remarks are based on facts. In those days, there was a social problem called “bōryoku sotsugyō-shiki” [violent graduation ceremony]: Students of high schools, or junior high schools, assaulted their teachers as soon as their graduation ceremonies were over.2

In the meantime, company managers came to recognize a strong need for “middle-class” engineers who would play a mediating role between engineers who had university qualification but

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2 See, for instance, newspaper articles such as “Sotsugyōsei 20 Sumei ga Kyōshi o Naguru, Keru” [More than twenty new graduates from a school assault their teachers] (Yomiuri Shinbun 4th March, 1956) and “Sotsugyō-ki to Seito no Bōryoku” [The graduation season and students’ violence]” (Yomiuri Shinbun 20th February, 1961).
little knowledge of practical operations at workplaces, and workmen consisting mostly of high school graduates. For that purpose, they requested the establishment of engineering schools. Although “technical colleges” had played that role in the pre-war educational system, they had been promoted to universities in the process of the post-war educational reform. Hence, at the time, schools to train middle-class engineers no longer existed. Company managers, therefore, thought it necessary to revive such type of educational institutions. Adopting the definitions used in a British government white paper on engineering education, the Japan Federation of Employers’ Associations (Nikkeiren) classified engineers into two categories: “technologist” and “technician.” A technologist was a first-class engineer with university qualification, and a technician was a middle-class engineer with industrial polytechnics qualification. Emphasizing the importance of technicians, the Nikkeiren asked the government, in 1956, to establish five-year colleges to train such middle-class engineers (Nihon Keieisha Dantai Renmei 1956). The Nikkeiren had submitted to the government a request for the establishment of colleges in December, 1950 (Yanagiha 1973, 92-93).

The company managers’ request for the establishment of educational institutions aiming at the training of middle-class engineers received wide public support. Consequently, the government founded technical colleges in 1964. Technical colleges were a five-year engineering schools for junior high school graduates. During the years immediately after their establishment, technical colleges were popular, attracting many brilliant junior high school graduates. Employment opportunities for their graduates were good, and engineers with technical college qualification earned high reputation. Many of those engineers, however, regretted that they had not advanced to universities. Before long, therefore, the number of applicants for technical colleges declined, never exceeding the level of a little less than ten thousand. On the other hand, the number of technical college graduates who found employment never reached eight thousand. Because of their low presence, technical colleges were often called “invisible schools” (Yanagiha 1973, 94-100; Hamanaka 2017, 47; Yano 2018, 1, 6-9 and 35-37).

In order to cope with the problems deriving from the personnel management system based on educational qualification, many large companies established in-house schools for high school graduates during the 1960s. Those in-house schools were expected to train high school graduates into a competent workforce and to provide them with routes to reach higher positions than those corresponding to their educational qualifications.

Of course, private companies’ in-house schools had existed since the pre-war period. It was after WWI that many large Japanese companies began to set up in-house schools, referred to as the yōseikō system, in order to cope with the shortage of skilled workers. Then, the introduction of the yōseikō system was made compulsory for large companies in the metal and machine industries during the War. Most of those in-house schools were closed down, when the War ended. Around 1951, however, they began to be reopened, as the economy recovered, stimulated by the Korean War special procurement. In general, those in-house educational institutions set up by private companies provided education for junior high school graduates for about three years with the aim of training “successors of capable core workmen” with “skills and scientific knowledge of production” as well as “respect for work.” The content of their education was constituted by practical training at workplaces and classroom lectures. The lectures comprised both general subjects such as Japanese,
mathematics and sciences, and special subjects related to jobs (Shokugyō Kunren-shi Kenkyū-kai 1972, 70 and 73).

In-house schools established during the 1960s were different from the ones established during the 1950s in that their target was high school graduates. In 1961, an Nikkeiren executive drew attention to the fact that in-house schools for high school graduates were attracting public interest. He explained that they accommodated new high school graduates as well as incumbent employees with high school qualification in order to train them into middle-class engineers, or specialized technicians. Their plan was, according to him, to produce human resources with abilities equal to, or more than, those possessed by graduates from pre-war industrial polytechnics, or two-year junior colleges, that were considered equivalent to pre-war industrial polytechnics. According to him, companies trained such workers not only because it was difficult to secure human resources in the science and engineering sector, but also because the existing educational system was not providing the type of human resources they needed (Yashiro 1961, 53-54).

The editorial staff of Rōmu Kenkyū [Personnel management studies] published, in 1961, a special article on in-house training of engineers, reporting that in the previous few years an increasing number of companies started technical education programs with an aim to train high school graduates into middle-class engineers possessing abilities equal to those of pre-war industrial polytechnics graduates. This move was necessitated, the article elucidated, not only because the amount of engineers with university qualification was not sufficient relative to their demand, but also because university graduates were lacking in certain abilities (Nihon Rōmu Kenkyū-kai Henshu-bu 1961, 13). In 1962, the Nikkeiren Kantō Keieisha Kyōkai [The Japan Federation of Employers’ Associations, Kantō Employers’ Association] published Kigyōnai Gakkō no Jittai [The real state of in-house schools], that presents an outline of all thirteen in-house schools established by that time. Table 1 is the list of those in-house schools.

| School Name                               | Year of Establishment | Years of Schooling | Capacity (person) | Class Hours    | Total Teaching Hours (hour) |
|-------------------------------------------|-----------------------|--------------------|-------------------|---------------|-----------------------------|
| Maruzen Oil Co. School Senior Course      | 1957                  | 2                  | 100               | Full Day, 7   | 3588                        |
| Komatsu Ltd Technical School             | 1960                  | 2                  | 40                | Full Day, 8   | 2000                        |
| Hitachi Ltd. Technical College           | 1960                  | 1                  | 420               | Full Day, 8   | 2300                        |
| Toshiba Ltd Technical School Senior Course | 1961              | 1                  | 120               | Full Day, 7.5 | 2080                        |
| TORAY Industries Inc Technical College    | 1962                  | 1                  | 160               | Full Day, 7   | 2016                        |
| Jūjo Paper Co Central Technical Training Institute | 1961              | 1                  | 20                | Full Day, 7   | 1932                        |
| Yawata Steel Works Education Center      | 1960                  | 1.5                | 100               | Full Day, 7   | N/A                         |
NEC Co Technical College | 1961 | 3 | 70 | Evening, 3 | 1800

FUJITSU Ltd Technical College | 1961 | 3 | 50 | Evening, 3 | 1800

Nagoya Oriental School Training Course | 1961 | 3 | 50 | Evening, 2 | 720

Toshiba Ltd School Advanced Course | 1950 | 1 | 40 | Evening, 3.5 | 990

Tokuyama Co Technical Business School | 1948 | 1 | Not Determined | Evening, 3 | 800~900

Osaka Institute for Advanced Technology | 1959 | 1 | 240 | Evening, 3 | 420

Source: Nikkeiren Kantō Keieisha Kyōkai (1962), 31-43.
Notes: (1) Nagoya Oriental School and Osaka Institute of Advanced Technology were established mainly by Toray, and the Osaka Industrial Association, respectively.
(2) Toshiba Ltd Technical School Senior Course, Toshiba Ltd School Advanced Course and FUJITSU Ltd Technical College did not give any privilege to their graduates.

Eleven of them were established during and after 1957, and nine of them were established within the same two-year period. In general, it took around one year to complete a full-time course and around three years to finish a part-time course. In either case, a course generally consisted of around two thousand teaching hours. The aim of both courses was to fill the gap between the Japanese educational system and the industry’s need by teaching students specialized skills and techniques necessary for each industrial sector. In addition, to produce “business people” through “human education,” that, in their views, was missing in Japanese education, was also their important goal. Only two of those in-house schools officially certified that those who completed their courses were regarded as having equivalent educational qualifications. However, at all but three of those in-house schools, graduates from those courses were given special privileges concerning their working conditions or career paths (Nikkeiren Kantō Keieisha Kyōkai 1962, 31). In the following section, case studies are presented regarding well-known in-house schools for high school graduates established by the Tokyo Electric Power and the Hitachi.

IV. Case Studies of In-House Schools for High School Graduates

1. Tōden Gakuen (in-house school established by the Tokyo Electric Power)

The Tokyo Dentō, the predecessor of the Tokyo Denryoku [Tokyo Electric Power, abbreviated as Tōden], established an in-house educational institution as early as in 1939. The institution was for graduates from two-year higher elementary schools: Higher elementary schools accommodated those elementary school graduates who had not advanced to junior high schools. The in-house institution provided a course constituted by several months of classroom lectures and practical training with an aim to teach knowledge and skills necessary for jobs at workplaces. To this elementary course was added the “Kōtō-ka [advanced course]” in 1940, which was mainly for those who completed the elementary course. After the War, these courses were further developed.
Although the advanced course had been suspended since the end of the War, it was reopened in 1948, accepting male workers who were between the ages of nineteen and twenty-eight and had worked for the company for more than one year. At the same time, the elementary course extended the range of technical operations it taught. In 1951, the electric power business was privatized, and the Tokyo Electric Power Company was established. Then, the educational courses were integrated into the Central Training School for Employees, which was put under the jurisdiction of the Education Section of the Personnel Department. In 1956, a three-year course was newly established in accordance with the government’s regulations on the training of skilled workmen. Graduates from the new course were treated equally to high school graduates. The attendants of the course were accommodated in the company’s dormitories and received lessons of “human education,” with scholarships being provided by the company. They were trained into skilled workmen through an educational program constituted by both technical lessons based on practice and classroom lectures whose level was a little lower than high school classes (Tokyo Denryoku Toden Gakuen 1993, 5-9, 14, 16 and 18-23).

With this in-house educational institution as its parent body, Toden Gakuen was established by the Tokyo Electric Power in 1964. In addition to the “Kotobu [high school course]” for junior high school graduates, the “Senmon-bu [professional training college course]” and the “Daigaku-bu [university course]” for high school graduates were newly established. Graduates from Toden Gakuen had possibilities to be promoted beyond positions their educational qualifications allowed. This policy originated from the vision of the company’s president, Kigawada Kazutaka, an advocate of the harmony between society and company. As soon as he was appointed to the position in 1961, he formulated a management reform policy with an aim to change the corporate structure of the Tokyo Electric Power. The policy included the improvement of the corporate training system. Kigawada was concerned that in the Japanese society where educational qualification was overrated there were many cases in which talented people were not able to demonstrate their real abilities and ended up feeling disappointment and inferiority. Under those circumstances, he envisioned an educational institution that would give educational opportunities to talented employees who had not been able to receive higher education due to their family situations. In his plan, that would open career paths to high managerial positions, to which they would be able to advance through their own efforts (Kigawada 1971, 131-132). It was in this vision that the plan to establish Toden Gakuen was drawn up. It was decided that the existing training school would be developed into the high school course, and that the two-year professional training college course and the two-year university course would be added. In this way, Toden Gakuen started in October, 1964.

The newly established professional training college course consisted of the clerical course and the technical course. The admission capacity for each course was around thirty students. Workers who had worked for the company for more than three years were eligible to take the entrance examination. The professional training college course provided junior college level education for two years, and graduates from the course were treated equally to graduates from junior colleges, or technical colleges. The university course also consisted of the clerical course and the technical course. Each course accepted around twenty students every year. Most of the students who attended the technical course held second-class chief electricity engineer's licenses. More than half of the
students who attended the clerical course were students from night schools of universities (Tokyo Dengyoku Tōden Gakuen 1993, 43-44 and 47).

Although the professional training college course and the university course were regarded as equivalent to technical college and university, respectively, the content of their education had their own specific characteristics. Yamazaki Takehiko, the first Chief Director of Tōden Gakuen, pointed out three characteristics of the education the professional training college and university courses provided. First, respect for work was emphasized. A certain length of employment was required for admission, and applicants’ job evaluation affected the pass-fail decision. It was also out of respect for work that feedback between study at Tōden Gakuen and knowledge and experience gained at workplaces was encouraged. Second, unlike many of other in-house schools, Tōden Gakuen’s education laid importance not on rote memorization but on the cultivation of general abilities necessary for the electric power business. Third, attention was paid to the aspect of “human education,” that aimed at the cultivation of the decision-making ability, the power to take action and a sense of leadership. In this respect, students were required to learn at their own initiative on the understanding that the gist of ability development was self-development (Yamazaki 1969, 95). These policies of Tōden Gakuen indicates that Tōden Gakuen’s university and professional training college courses held different educational principles from universities’ and technical colleges. The purpose of these Tōden Gakuen courses was to produce workers possessing theoretical and practical knowledge, operational experience and the power to take action. This educational goal of Tōden Gakuen can be seen as a reflection of above-mentioned company managers’ criticism against university education in this country that it had been failing to produce human resources equipped with aptitude and ability necessary for actual work. Tōden Gakuen’s curriculums were well constructed, covering a wide range of subjects. For instance, the curriculum of the technical course in the university course had ‘Japanese’, ‘economics,’ ‘physics,’ ‘English’ and ‘special lecture’ as compulsory subjects. In addition, ‘philosophy,’ ‘history of social thought,’ ‘introduction to science,’ ‘introduction to law’ and ‘electron physics’ were offered as general elective subjects. Staff of excellent universities were invited as lecturers of these subjects. Well-known people, including the Zero fighter pilot known as “the shoot-down king,” were invited as lecturers of ‘special lecture.’ Of course, specialized subjects were also of high quality. In addition to compulsory subjects such as ‘algebra’ and ‘analysis,’ many subjects related with ‘electrical engineering’ and ‘electronics’ were offered as elective subjects. Apart from in-house lecturers, staff from other universities were also invited (Tokyo Electric Power 1969, 38; Interview 2020).

Tōden Gakuen graduates had strong presence within the company. The number of employees who passed the entrance examination for the high school course increased gradually from 385 to 510 between 1964 and 1970, although it went down thereafter. By 1975, 5,068 employees had entered the high school course in total. Among them, 4,746, that is, 94 percent, graduated. The proportion of high school course graduates against the total number of workers newly employed during fiscal 1975 is 27.3 percent. Their retention rates are also high. Among the high school course graduates who were working for the Tokyo Electric Power at the end of 1972, 3,845 were still working for the company in September, 1975, the retention rate being as high as 94 percent (Tōden Gakuen Kōtō-bu 2007, 187 and 252-253). As for the professional training college course and the university course, the average numbers of enrolment for the period between 1965 and 1969 are around 65 and 40,
respectively (Tokyo Denryoku Tōden Gakuen 1969, 118-121). Judging from these small numbers, it can be assumed that the selection was very severe. Among employees who attended the high school course during the period between 1965 and 1969, only 44 advanced to the professional training college course, and as little as 14 advanced to the university course (including graduates from the professional training college course). It can be supposed, therefore, that most of the employees who attended the professional training college course, or the university course, were high school graduates (Tokyo Denryoku Tōden Gakuen Köto-bu 2007, 250).

Unlike employees with university qualification, who were recruited directly by the company’s head office, Tōden Gakuen graduates were adopted by the company’s operations departments, as was the case with high school graduates and technical college graduates (Onda 2007, 112). Careers of Tokyo Electric Power employees depended largely on their educational qualifications. According to a former employee of the company, university graduates were on course for managerial positions. After severe evaluations of their abilities, their career paths were divided into two: managerial positions at the head office, or those at local bodies. On the other hand, high school graduates were basically considered operators at workplaces. Only excellent ones were promoted to managerial positions, and a very few of them were given opportunities to work at the head office (Ichihara March 2016, 6). According to an article by a Tokyo Electric Power employee published in a magazine on the left-wing labor movement, graduates from the high school course of Tōden Gakuen were the second group of elites after university graduates who were on course for top managerial positions, because they were promoted to low-level managerial positions such as Foreman and Branch Chief (Yamakawa 1969, 79). In an interview conducted by the author, a former Tokyo Electric Power employee and Tōden Gakuen university course graduate talked about the difference in the levels of job positions into which the company classified its employees when it recruited them. According to him, the level of job position increased step by step in this order: graduates from high schools, graduates from the high school course of Tōden Gakuen, graduates from the professional training college course of Tōden Gakuen and graduates from the university course of Tōden Gakuen. On top of them, university graduates were positioned. In his view, however, since university graduates did not have practical knowledge about workplaces, graduates from Tōden Gakuen had to support them, and it was owing to their assistance that graduates of Tōden Gakuen’s university course were able to become, in the best case, chief managers of departments, or centers, of local bodies (Interview Chōsa 2020).

Table 2 shows workplaces to which graduates from Tōden Gakuen were deployed. It can be assumed that the numbers include graduates from its predecessor, the Training School for Employees, because, in some cases, years of graduation indicate the period before its establishment. With regard to graduates from the high school course, very few of them were deployed to the head office. Concerning graduates from the professional training college and university courses as well, only a small number of them worked at the head office. In fact, most of them were deployed to local bodies. Interestingly, many of the high school course graduates were deployed to branches that had sub-branches within their business areas. On the other hand, a relatively large proportion of the professional training college and university courses graduates were deployed to power plants and construction offices. Supposedly, they carried out core tasks of the power generation business, assuming managerial roles.
Table 2: Worksites to which Graduates from Tōden Gakuen were deployed

|                        | High School Course | University Course | Professional Training College Course |
|------------------------|--------------------|-------------------|---------------------------------------|
| Head Office            | 1.6                | 5.7               | 12.9                                  |
| Branch Offices         | 52.3               | 25.7              | 32.3                                  |
| Regional Offices       | 18.1               | 25.7              | 24.2                                  |
| Electric Power Offices | 10.9               | 8.6               | 11.3                                  |
| Thermal Power Plants   | 17.0               | 31.4              | 17.7                                  |
| Construction Offices   | 0.2                | 2.9               | 1.6                                   |

Source: Tōden Gakuen Kōtō-bu Yōran (1967 a), 34—35.

Tōden Gakuen Daigaku-bu Senmon-bu (1967 b).

Note: Unit:%

An article by a Tokyo Electric Power employee published in Kōgaku Kyōiku [Engineering education] reveals that core operations at workplaces were implemented by high school graduates including those from the high school course of Tōden Gakuen. The article explains that because it required long years of OJT and practical experience to train technical workers and office staff capable of carrying out important operations at the forefront of the power generation industry, the company recruited younger people, mainly high school graduates, and taught them technology and skills, as well as basic knowledge, indispensable for actual work (Ichinose and Nakagawa 2007, 91). Operators at thermal and nuclear power plants were trained as follows. New types of thermal power plants began to be constructed in 1953, with technology being imported mainly from the United States. As a result, the nature of power plant work changed from heavy physical labor to surveillance in the central control room and regular inspection of facilities. Corresponding to this change, the main target of recruitment also changed from higher elementary school graduates to new graduates from high schools (Shiba 1961, 31). Upon being deployed to a section tasked with the running of a power plant, they started their careers as inspectors, patrolling the facility and operating the equipment under the guidance of their superiors and seniors. While doing so, they learnt all about the power plant from the equipment to work practices, acquiring know-how of surveillance and operations. Within a few years, those who received high evaluations regarding their aptitude and ability were appointed to control room operators. Then, they were promoted to Shunin [chief], then to Fukuchō [deputy head] and finally to Tōchoku-chō [watch-keeping head], an equivalence of Kachō [section chief] (Ōsuga 2008, 44; 2009, 19). Knowledge about the running of a power plant belonged to them. Supposedly, Tōden Gakuen graduates constituted the core of such workforce.

2. Hitachi Kōgyō Senmon Gakuin (in-house industrial school established by the Hitachi)

In 1960, the Hitachi established Hitachi Kōgyō Senmon Gakuin [Hitachi Technical College], an in-house school for high school graduates, as part of its 50th anniversary project. Two in-house schools were founded: one in Ibaraki Prefecture in which the company’s heavy electric machinery plants were located; the other in Yokohama City, the center of Keihin region in which the
company’s light electric appliances and electronics plants were located. In 2002, the latter school, referred to as “Keisen,” was merged with the former, referred to as “Ibasen.” In 1910, the Hitachi established an apprentice training center for the purpose of producing skilled workmen. The training center was reorganized into Hitachi Kōgyō Senshū Gakkō [Hitachi Industrial Skills Academy] in 1928. This school accommodated elementary school graduates, or those who had completed compulsory education. This educational institution has attracted so much interest that a number of researches have already been implemented on this subject (Nichikō-dōsōkai 1987; Sugayama 1985). However, little attention has been paid to Hitachi Kōgyō Senmon Gakuen that accommodated high school graduates, although the content of its education and activities of its graduates have notable characteristics. The following investigation focuses mainly on Ibasen because of the availability of records.

Ibasen offered education to technical high school graduates who were employed by the Hitachi, or its affiliated companies. Applicants for its entrance examination were required to receive, in advance, two years of “basic education,” which will be mentioned below. The purpose of its education was to give them knowledge and skill necessary for specialized engineers, while imbuing them with the corporate philosophy referred to as the “Hitachi spirit.” At the outset, the electricity, machinery and chemical engineering courses were set up, and in the following year, the metallurgical engineering course was added (“Ibasen no Ayumi” Henshū Iinkai 1979). The number of the first Ibasen graduates was 155. Then, the number of graduates continued to increase for five years, hovering above the 200 level. However, the number of the seventh graduating class sank below 200, and the number did not exceed the 200 level thereafter. The cumulative total number of the first through tenth graduating classes is 1,869. As for the first through twentieth graduating classes, the cumulative total number is 2,922 (“Ibasen 40-shūnen Kinenshi” Henshū Iinkai 1999, 180).

The editorial staff of Rōmu Kenkyū, which has conducted a research on various in-house schools, points out two reasons why the Hitachi established this educational institution. One was the necessity to give promotion opportunities to excellent technical high school graduates who had been ranked among the top five at their high schools. The other was the necessity to train talented employees into engineers equivalent to pre-war industrial polytechnics graduates (Nihon Rōmu Kenkyū-kai Henshū-bu 1961, 13). This explanation indicates that the in-house school was established out of consideration for industrial relations as well as out of the necessity to produce middle-class engineers.

If academic ability and personality of a graduate from this in-house school received high evaluation, he was given a chance to be selected as a “kenkyūka-sei [research student]” and to be dispatched, with a research theme, to a science and technology university, or a research institution, for one year, where he would be directly supervised by a professor. During the first twenty years, 202 of such research students were dispatched. Among them, 136 studied at Tokyo University, and 117 of them, at the Faculty of Engineering (“Ibasen 30-shūnen Kinenshi” Henshū Iinkai 1989, 5).

In contrast to Tōden Gakuen, Ibasen was known for its cram education policy. From its first year through third year, the length of its educational course was a year and three months with 2,310 total teaching hours. In its fourth year, the teaching hours were reduced to 1,890, and the course length was also reduced to one year, on the grounds of the improvement in “basic education”
provided at each plant. In its ninth year, the teaching hours were again increased to 2,430 and the course length was also extended to a year and three months ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 5). According to the editorial staff of Rōmu Kenkyū, since Ibasen laid importance on general education, 30 percent of the total teaching hours were constituted by general education subjects (Nihon Rōmu Kenkyū-kai Henshū-bū 1961, 13). In fact, general education was provided at each course, and the total teaching hours of humanities and social sciences subjects were around a hundred hours. In addition, both English and German were set as compulsory subjects for the first ten years. However, many of the basic subjects were mathematics subjects such as calculus, applied mathematics and mathematical statistics, and physics subjects equivalent to those taught at universities to first and second-year students. In order to cultivate practical abilities within a short period of time, Ibasen’s curriculum put weight on specialized subjects ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 6 and 8). An Ibasen graduate referred to its cram education as the “Ibasen’s way of studying.” In this relation, he commented: It was like you could get a ticket from an automatic ticket machine without knowing its mechanism, if only you knew how to put a coin and how to press the lever (Fusetani 1962, 19-21). His parable-like comment means that what Ibasen taught its students was to apply formulas without asking questions about deeper structures and theories.

In a newsletter Ibasen’s alumni association published in February, 1968, the school president admitted that he knew the concern of students’ bosses and colleagues over detrimental consequences of the forty-four hours per week of cram basic engineering education ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 35). Apparently, problems with Ibasen’s cram education were recognized. A former student belonging to the sixth graduating class remembers that Ibasen teachers used to say: “Here is a place to teach you how to study for yourselves when you get back to your workplaces” ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 83). It can be assumed from this recollection that the school’s teaching staff comprising both in-house teachers employed by the company and lecturers sent by universities were well aware of the detrimental effects of Ibasen’s cram education. Therefore, when the tenth class of students were enrolled, a curriculum reform was implemented with an aim to have students acquire the attitude of studying by themselves. A new subject called ‘engineering seminar’ was launched, and new educational methods were also introduced, encouraging students to choose research themes, investigate them and present research results by themselves ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 6).

Another characteristic of Ibasen education was its emphasis on moral and physical education, which was regarded as equally important as academic education. As was the case with Tōden Gakuen, all students were accommodated in a company dormitory and lived a communal life. A dormitory council was set up, and boarders ran the dormitory by themselves under the guidance of a dormitory inspector appointed by the company. It was expected that, through such activities, solidarity, discipline and leadership would be cultivated. Physical education was also encouraged, with extracurricular sports clubs being organized ("Ibasen 30-shūnen Kinenshi" Henshū Iinkai 1989, 7).

Regrettably, there is limitation in the availability of information on Ibasen graduates’ career paths in the company. However, even the limited information indicates that Ibasen graduates assumed, as middle-class engineers, second important positions in the company after university
graduates. According to the alumni association of Ibasen, members of the association include many names with titles of managerial positions such as ‘Deputy Plant Manager,’ ‘Head’ of a department, ‘Chief’ of a section and ‘Chief Engineer.’ According to a comment by the chief of the alumni association’s Kasado branch, activities of the alumni association are stagnant, because many of its members are busy being Heads and Chiefs (“Ibasen 30-shūnen Kinenshi” Henshū linkai 1989, 78). The validity of these comments has not yet been corroborated by written records. However, there are some data that indicate the superiority of Ibasen graduates’ careers to those of high school graduates.

Hitachi employees were classified into five job groups: “planners”; “office workers,” who assisted “planners”; “direct work-site operators”; “indirect work-site operators,” who assisted “direct work-site operators”; and “special workers,” such as doctors, nurses and car drivers, who had special job qualifications. Working conditions and career paths were determined for each job group. Only employees belonging to the category of “planners” had chances to be promoted to top managerial positions. Needless to say, which job group an employee was classified into depended largely on his educational qualification. University graduates were given two-year trainee education after employment. At the end of this two-year training, they submitted their research reports, and then were appointed as “planners.” As for high school graduates, they were first appointed as “office workers.” If their abilities and achievements received high evaluation, they could become “planners” ten years, or more, after employment (Hitachi Rōdō Kumiai 1964, 427-428). Table 3 shows the breakdown of employees at the Hitachi Factory by job group and educational background. The figures are based on a survey conducted by the Hitachi Plant Labor Union in March, 1973. It should be borne in mind that, in Japan, labor unions were established at the factory level. Although all new employees joined trade unions, it was the rule that when union members were promoted to “kachō [section chief],” they withdrew from their unions. It is because of this that numbers of people over the age of forty are small. The table shows that there are few work-site operators among graduates from Ibasen (Hitachi Kōgyō Senmon Gakuin) even among those in their twenties. Most of the Ibasen graduates in their thirties are planners. That is in stark contrast with the case of high school graduates in which the proportion of work-site operators is largest even among those in their thirties. The pattern of Ibasen graduates is closer to that of university graduates than to that of technical or junior college graduates, although, in terms of the level of educational qualification, Ibasen graduates are closer to technical or junior college graduates than to university graduates.

With regard to the types of jobs in which Ibasen graduates were engaged, Ibasen no Ayumi 20-nen o Kaerimite [The history of Ibasen - looking back on the past 20 years] comments that “many of the Ibasen graduates have been active on the frontlines of designing and development work.” (“Ibasen no Ayumi” Henshū linkai 1979). In fact, according to surveys conducted by the Ibasen alumni association at ten-year intervals on the occasions of the school’s tenth, twentieth and thirtieth anniversaries, the proportions of Ibasen graduates engaged in designing work were 52.5, 46.3 and 36.6 percent, respectively. Although the proportion kept decreasing, designing work remained the most common work for Ibasen graduates. The proportions of Ibasen graduates engaged in research work were also remarkable: 20.2, 13.5 and 13.3 percent, respectively. It has been confirmed that Ibasen graduates were involved in the development of the fully automatic washing machine that became a huge hit because of its noise-reduced motor. It is said that ninety percent of
those involved in the development of the washing machine, including section chiefs and chief engineers who demonstrated leadership, were schoolmates of Ibasen (“Ibasen 30-shūnen Kinenshi” Henshū linkai 1989, 167 and 205).

Table 3: Breakdown of Union Member at the Hitachi Factory by Job Category and Educational Background

| High School | Planning Staff | Supervising Staff | Clerks | Workmen | Special Service Staff | Total |
|-------------|----------------|-------------------|--------|---------|-----------------------|-------|
| Age         |                |                   |        |         |                       |       |
| Under 20    |                |                   |        |         |                       |       |
| 20s         | 63             |                   | 11     | 5       |                       | 16    |
| 30s         | 709            | 20                | 396    | 299     | 1                     | 759   |
| 40s         | 44             | 11                | 35     | 52      | 3                     | 145   |
| 50s         | 4              | 11                | 19     | 9       |                       | 43    |
| Total       | 820            | 42                | 775    | 1141    | 13                    | 2791  |

| Hitachi Kōgyō Senmon Gakuin | Planning Staff | Supervising Staff | Clerks | Workmen | Special Service Staff | Total |
|-----------------------------|----------------|-------------------|--------|---------|-----------------------|-------|
| Age                         |                |                   |        |         |                       |       |
| Under 20                    |                |                   |        |         |                       |       |
| 20s                         | 133            |                   | 98     | 16      |                       | 247   |
| 30s                         | 197            | 2                 | 4      |         |                       | 203   |
| 40s                         | 8              | 8                 | 6      |         |                       | 22    |
| 50s                         |                |                   |        |         |                       |       |
| Total                       | 338            | 10                | 108    | 16      |                       | 472   |

| Technical or Junior Colleges | Planning Staff | Supervising Staff | Clerks | Workmen | Special Service Staff | Total |
|------------------------------|----------------|-------------------|--------|---------|-----------------------|-------|
| Age                          |                |                   |        |         |                       |       |
| Under 20                     |                |                   |        |         |                       |       |
| 20s                          | 8              |                   | 46     | 3       |                       | 57    |
| 30s                          | 41             | 10                | 3      |         |                       | 54    |
| 40s                          |                |                   |        |         |                       |       |
| 50s                          |                |                   |        |         |                       |       |
| Total                        | 49             | 0                 | 56     | 6       |                       | 111   |

| Universities and Graduate Schools | Planning Staff | Supervising Staff | Clerks | Workmen | Special Service Staff | Total |
|-----------------------------------|----------------|-------------------|--------|---------|-----------------------|-------|
| Age                               |                |                   |        |         |                       |       |
| Under 20                          |                |                   |        |         |                       |       |
| 20s                               | 242            |                   | 91     | 1       |                       | 334   |
| 30s                               | 183            | 1                 | 3      |         |                       | 187   |
| 40s                               |                |                   |        |         |                       |       |
| 50s                               |                |                   |        |         |                       |       |
| Total                             | 425            | 1                 | 94     | 1       |                       | 521   |

Source: Hitachi Rōdō Kumiai Hitachi Kōjō Shibu (1975), 6.
Note: (1) The original survey was conducted in March, 1973.
(2) Unit: person
In the case of in-house schools for junior high school graduates, many of the graduates from such in-house schools left their companies relatively early because such people tended to have desire to go to higher educational institutions. By contrast, Ibasen graduates’ retention rate was high. As of 1989, the school’s thirtieth anniversary, the resignation rate of the first through tenth graduating classes was as low as a little over 10 percent (“Ibasen 30-shūnen Kinenshi” Henshū Inkai 1989, Appendix Table2). It can be said that they contributed to the company with loyalty as the second important core workforce after university graduates.

V. Conclusion

During the late nineteenth century, the Japanese government established the bureaucrat appointment system based on educational qualification. Out of the necessity to compete with the government in the recruitment of capable employees, large private companies also adopted the personnel management system in which employees’ working conditions and career paths were determined by their educational qualifications. In a sense, it was a rational system because educational qualification served as an indicator of how much a person acquired knowledge about technologies and mechanisms of state, economy and society in western countries that was necessary for the formation of a modern state and the development of industries and companies. It was during this period that “school culture” started to become the dominant force in human resources development in Japan. This culture did not change even after the post-war democratic reform in which the so-called “status discrimination” between high-ranking and low-ranking employees was alleviated.

On the other hand, it had also been widely understood that the traditional apprenticeship system maintained among craftsmen would not be able to produce workers capable of handling new technologies introduced from the West (Ichihara September 2012, 68-71). The influence of “shop culture” on human resources development was only trivial in Japan.

As was mentioned above, however, company managers did not place a high evaluation on Japanese education, and in particular university education’s ability to develop human resources. Their discontent against university graduates was mostly concerned with their lack of knowledge about work-site operations and with their lack of enthusiasm in such operations. More recently, university graduates again became criticized this time for their unwillingness to learn. In 1980, Ronald Dore, a sociologist with extensive knowledge about Japan, wrote, with a concern over the future of Japan, that Japanese university students did not study much, because the content of university education and their academic performance at their universities were neglected in the recruitment process. According to him, that was because, in Japan, people were evaluated on the levels of universities whose entrance examinations they passed (Dore 1980).

It was in-house education provided by private companies that complemented the lack of shop culture and the malfunction of school culture. Around the time of WWI, the establishment of in-house schools for elementary school graduates, referred to as the “yōseikō” system, spread among large Japanese companies, contributing largely to the training of skilled workers. In-house schools dealt with in this study were for high school graduates. This type of in-house schools was established by many large companies during the 1960s, producing second important core workers after those with university qualification. From the standpoint that key characteristics of Japanese
human resources development can be found in private companies’ in-house education, it should be stressed that there existed the third way of developing human resources: namely, “corporate culture.” Without it, many countries would not have been able to achieve economic growth, and without it, it would not be possible.

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