

SCHOOL FOOD, EQUITY AND SOCIAL JUSTICE

Critical Reflections and Perspectives

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Chapter 12

JAPANESE SCHOOL LUNCH AND FOOD EDUCATION

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12

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Yukako Waida and Miho Kawamura

Introduction

Japan may be one of the countries most dedicated to providing nutritious school lunch. Japanese children are generally healthier than children in other countries (UNICEF, 2019), thus, foreign educators and researchers often focus on Japanese school lunch because of the nutritious (Borovoy & Roberto, 2015) and educational (Schwartz, 2007) aspects. For example, Danish researchers published a report based on observations of school lunch in Japan (Stovgaard et al., 2018). In fact, Japanese school lunch has an important position in children's welfare as a system that provides children with balanced, healthy lunches. Instead of choosing from a menu, all children receive equal amounts of the same food that caters to their nutritional requirements.

Japanese school lunch has a long history in Japan, first provided 130 years ago to help children experiencing malnutrition due to poverty. After World War II, all Japanese people including children faced food shortages. In 1954, the School Lunch Program Act (1954) was enacted, and the Japanese government arranged a system to provide school lunches throughout Japan. In the approximately 65 years since, school lunch has assisted in Japanese children's physical development, encouraged their interest in nutrition, and promoted their nutritional knowledge. Around 1980, several social problems emerged, such as children not having access to healthy meals, though enough food was available, and some children had not eaten meals with adult (Adachi, 1983). Since then, there has been an increase in instances of malnutrition and overweight in children.

It is necessary to reflect on and rethink the school lunch system in which all students eat the same meal together. Therefore, it is time to operate school lunch programs so to meet the needs of a broad range of children. Thus, in this chapter, we introduce the origins of the Japanese school lunch program, its evolution over the past 130 years, and its present implementation and functionality. We discuss the

educational perspective on the Japanese school lunch program, its important role in children's lives, and current issues, as considered in schools for a long time. Finally, we propose future directions for school lunch programs based on previously studied nutritional and educational perspectives.

The history of Japanese school lunch

We divide the approximately 130-year history of Japanese school lunch into four periods: relief, generalization, quality improvement, and food education.

Relief period (1889–1954): School lunch for children in distress

There are two ways of thinking about the beginning of school lunch provision in Japan. One is that school lunch was a way to encourage school attendance (NIER, retrieved in 2021, p.1), and the other is that school lunch was a way to relieve poverty (Tsuchiya & Satou, 2012, p. 27). Although there are various theories about the origin of the Japanese school lunch program, concerning why schools decided to provide meals to children, we consider the second reason more important.

The most recognized story of the first school lunch in Japan comes from Tsuruoka City, Yamagata Prefecture. Chuai Elementary School began providing meals to students for poverty relief around 1889¹. Tsuchiya and Satou (2012, p. 27) stated that “by gathering a lot of local children at the school, teachers and adults in the school noticed that because some children are very poor and cannot eat enough, they cannot study”. Therefore, a school lunch program was initiated, hoping that if children from low-income families were not hungry, they would be able to study as hard as their classmates. In addition, such school lunch efforts, made possible primarily by funding from local volunteers, were implemented in areas of Japan also outside of Yamagata Prefecture.

In September 1932, the Temporary School Lunch Facility Law (1932) was promulgated by the Ministry of Education. School lunch was provided for the first time with a state subsidy, and the law aided food provision to children who skipped meals for any reason, even if they were not from low-income families. In response to this law, well-known Japanese nutritionist, Doctor of Medical Science, Tadasu Saiki (1932, p. 1) noted that “the situation where only some children are fed is bad for the children's spirit”. Being provided a school lunch in itself indicates a problem with a child's family background, resulting in unequal hierarchies among children. Thus, Saiki emphasized the importance of providing school lunches to all children. In 1940, a new law, the School Lunch Encouragement Regulations (1940), was passed, making children who ate an unbalanced diet due to their preferences, other children in situations that could not be unequivocally defined, and blind and deaf children become eligible for school lunches.

When Japan entered World War II the following year, food supplies decreased nationwide, and many school lunch programs ceased (Kinoshita, 1970). By the war's end in 1945, many children had lost their parents and were starving (Haruhara,

1946; Collection of historical materials for postwar education in Japan volume 2, 1983). In such a dire food shortage situation, teachers campaigned to collect signatures supporting school lunch and submitted a petition to the GHQ (Kinoshita, 1970). In response, food aid from abroad, including wheat flour and skim milk powder, arrived in Japan.² The significant food support sent from foreign countries enabled approximately half of the Japanese children to receive school lunches (Kinoshita, 1970), cooked by volunteer mothers (Tokyo Third Teacher's School-affiliated elementary school, 1947). However, in 1951, school lunch programs were threatened by the discontinuation of the GARIOA (Government Appropriation for Relief in Occupied Areas) fund. Therefore, a national movement to continue school lunch programs developed, resulting in the enactment of the law in 1954.

Generalization period (1954–1976): Most children became eligible for school lunch

The 1954 School Lunch Program Act (1954) positioned school lunches as part of education. As a result, the elementary school lunch implementation rate³ increased from 41.8% in 1954 (Ministry of Education, 1959) to 96.5% by 1975 (Ministry of Education, 1975).

Although many children became eligible for school lunch during this period, there was a mismatch between children's food habits and school lunch menus. At that time, Japanese people generally ate rice as their staple food.⁴ However, bread was the staple food for school lunches. During this period, many municipalities introduced a joint-mass cooking method in school lunch facilities to efficiently provide school lunches on a large scale. Although this method has advantages and disadvantages, it is considered to have greatly influenced the improvement of the school lunch implementation rate.

High quality period (1976–2005): Responding to the complex food crisis of children

In 1976, the Ministry of Education notified the "Implementation of Rice Meal School Lunch (1976)" and rice was adopted as the staple food of school lunch. Menu variety increased, and school lunch quality improved. Further, children's dietary habits changed significantly due to the impact of high economic growth. Poverty was no longer the only food crisis children faced, as two new crises emerged during this period: an increase in children eating alone and an increase in children's junk food intake.

Adachi (1983) pointed out that children eating alone was a widespread phenomenon and insisted on the need for improvement. Adachi noted parents' busy schedules as the cause of this phenomenon; however, she also mentioned that, surprisingly, children eat alone even with their parents in the same house. A later study found that eating with family and having conversations with children during meals⁵ are associated with children's happiness and the formation of healthy eating behaviors

and attitudes (Eto et al., 2012). Thus, school lunch in Japan became a means for teachers and students to enjoy a chat while eating together, and the value of children enjoying eating together in the classroom or lunchroom was noticed.

In a study for eating habits in urban areas from 1998–2002, Iwamura (2003) found that parents did not pay attention to their children's diets, and that processed foods were frequently eaten daily, even in families with children. Around this time, Japanese educators began to consider more seriously the necessity of providing comprehensive nutrition and dietary education at school.

Food education period (2005–present): Utilizing school lunch in educational activities

The call for food education for children became stronger, and the Basic Act on *Shokuiku* (Food and Nutrition Education) (2005) was enacted in 2005. Further, the Nutrition Teacher System (2004) was introduced. School dietitians had been assigned to school lunch sites since 1974 to plan lunch menus and cook the food; however, since the introduction of the nutrition teacher system (2004), school dietitians have also provided lessons and individual guidance. During this time, school lunches maintained a high quality and became more firmly positioned within the educational system.

However, from 2020, measures were taken during school lunches to prevent coronavirus disease 2019 (COVID-19) spread. For example, mealtime conversations were restricted. Thus, there is no doubt that we are at a time of great change.

Current state of school lunch in Japan

School lunch position and system

School meals are positioned as part of education in the government's elementary and middle school curriculum guidelines. In 2018, school lunch implementation rates were 98.8%, 79.9%, and 87.3% for elementary, junior high, and special support education schools, respectively (MEXT,⁶ 2019a, February 26). Many local governments use subsidies to provide meals at half the original price, but with only 4.4% of elementary and junior high schools offering free meals (MEXT, 2018), most parents have to pay for school lunches.⁷

There are three types of school lunch (see Figure 12.1). Currently, the most common is “full lunch”, with “supplementary lunch” and “milk lunch” being the simpler types. In some cases, there is a kitchen in the school, and in other cases, several schools' lunches are cooked together in a joint-mass cooking facility. These facilities can produce lunches for more than 20 schools, and more than 10,000 lunch meals per day are prepared and transported by trucks to schools. As of 2018, 52.0% of elementary schools used joint-mass cooking facilities (MEXT, 2019a, February 26).

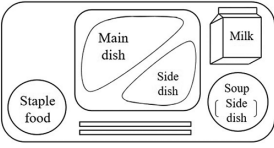
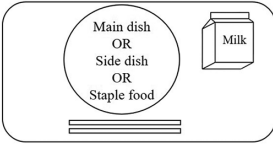
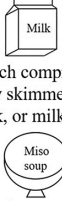
Full lunch	Supplementary lunch	Milk lunch
 <p data-bbox="162 419 460 525">A set meal comprising staple foods such as bread and rice; main dishes that are protein-rich, such as meat and fish; side dishes with fruits and vegetables; and milk.</p>	 <p data-bbox="526 419 797 481">Meals that are not complete or balanced, such as a main course dish and milk, or a staple food and milk.</p>	 <p data-bbox="851 322 990 389">Lunch comprising only skimmed milk, or milk.</p> <p data-bbox="851 460 983 525">Lunch menus consisted of only miso soup.</p>

FIGURE 12.1 Three types of school lunch menu structure

Contributing to children's nutritional intake

School lunches help children receive proper nutrition (Morimoto & Miyahara, 2018). For example, in a survey of fifth graders, Nozue et al. (2010) reported that more vegetables and milk were consumed on days with school lunches than on days without school lunches. Similarly, elementary and junior high school students can take more vitamins and minerals during school days (Asakura & Sasaki, 2017).

An important reason for the establishment of school lunch was the relief of poor children. Even in modern times, it is known that the income disparity of children's household income affects the nutritional intake of children (Arai et al., 2017). To our delight, Japanese school lunches have been proven to be effective in partially reducing nutritional disparities caused by children's household income disparities (Yamaguchi et al., 2018; Horikawa et al., 2020).

The percentage of obese children in Japan is low compared to the rest of the world (UNICEF, 2019). Although it cannot be said unconditionally due to genetic differences between ethnic groups, it is possible that the thorough nutritional management of school meals contributes to children's health. As a basis for this, Miyawaki et al. (2019) revealed that the higher school lunch coverage rate, which means the Junior high school lunch implementation rate in the local government, is associated with reducing the overweight and obesity rate in junior high school boys. Regarding child health, it has also been suggested that milk provided for calcium supplementation in most Japanese schools may positively affect the bone growth of children (Kohri et al., 2016).

However, as in many other countries, the proportion of obese children in Japan has increased since 1990 (UNICEF, 2019), and it is necessary to consider how to provide meals according to the current issues.

Examples of a Japanese elementary school lunch

Let us examine an actual school lunch in Japan. This lunch was served in an elementary school in the Kanto area, using a Japanese-style menu (see Figure 12.2).

Along with Japanese-style menus, Western-style menus, such as bread rolls and hamburgers, and Asian menus, such as curry, *jiao-zi*, and ramen, are also preferred and often offered. Lunchtime is 45 min: the first 15 min are used for preparation and serving, the last 10 min are used for cleaning up and toothbrushing, and the actual mealtime is about 20 min. Approximately 30% of children report feeling they do not have enough time to eat (Abe & Akamatsu, 2011; Kiguchi et al., 2012).

Meals are divided into separate containers for each class and each dish. The school lunch serving role is assigned on a shift system, and the children on duty distribute the contents of the cans evenly, so that the planned amount of nutrition is provided to each child (Figure 12.3).

However, as there are individual differences in physique and appetite, rules are set for each class so that children can adjust the amount to be suitable for them on that day. In most cases, unless there are allergies or other special circumstances, children are not permitted to eat only certain foods, such as only rice or meat. All kinds of foods are always served together on a plate, even in small portions. Children return their dishes to the serving table once they have finished eating (Figure 12.4).

Before the COVID-19 outbreak, desks were rearranged in classrooms to form a large table, and meals were eaten with students facing each other (Figure 12.5). However, presently, almost all children eat without facing each other to reduce the risk of infection.

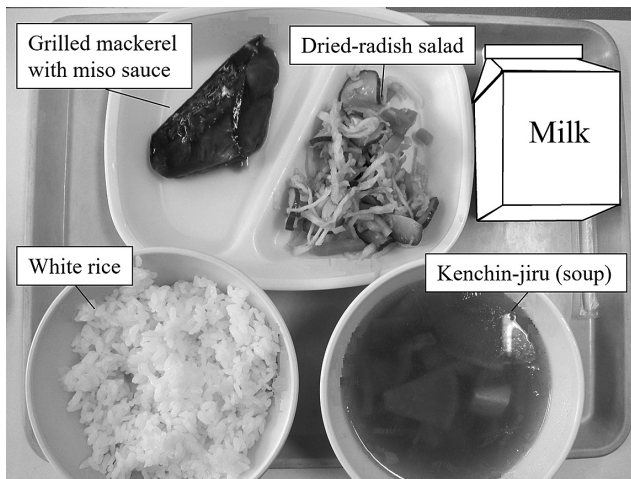


FIGURE 12.2 School lunch plate



FIGURE 12.3 Children are serving dishes themselves



FIGURE 12.4 Scenes where children are tidying up



FIGURE 12.5 Scenes where children are eating

School lunch instruction provided by classroom teachers

In Japan, homeroom teachers support the school lunch process, from meal preparation to clean up. This is called school lunch instruction. Many teachers eat lunch with their students while teaching them how to prepare meals, clean up, wash their hands properly, serve dishes, arrange dishes, use chopsticks, and display good table manners. School lunch should be a time for teachers and students to have fun and chat with each other while engaging in lunch instruction. However, many teachers are extremely busy, and during school lunch instruction, they finish eating in about 5–15 min (Hara & Kawamura, 2014), do tasks, such as checking notes and writing comments, and then give school lunch instruction again to complete the cleanup.

In addition, current teacher training courses do not provide sufficient training for school lunch instruction (Suzuki, 2015). Therefore, teachers may refer to the methods of their colleagues (Waida et al., 2021), the education they received at home, or the school lunch instruction they received in elementary

school (Shimpo et al., 2017). As such, teaching methods vary among teachers (Hara & Kawamura, 2014). In Japanese school lunch, it is considered necessary to eat all of a provided meal to meet nutritional guidelines. Therefore, homeroom teachers encourage children to finish as much of their meal as possible. However, if teacher training is insufficient, this type of school lunch instruction may hurt children.

Educational perspectives on school lunches

Educational researchers and professionals worldwide consider Japanese school lunches to be very well-managed with well-integrated educational activities, because students are empowered to prepare and cleanup by themselves (Stovgaard et al., 2018). This chapter explains the four educational perspectives on Japanese school lunches.

Working together: Lunch preparation and cleanup

Working in a classroom for others; for example, cleaning up the blackboard, tidying up the bookshelf is respected in Japanese schools. There are various working roles. The lunch preparation and cleanup processes in schools are similar throughout Japan; however, there are some differences in each school's rules and routines, such as how garbage is discarded and dishes are packed into containers. In addition, some students bring the used containers to the school kitchen pick-up area when students finish lunch. In many elementary schools, students learn lunchtime routines and procedures from their teachers, whereas, in others, sixth-grade students teach lunchtime activity routines to first-grade students (Yamashita et al., 2013). Preparing and eating lunch together in school every day provides an opportunity for educational activities that help students learn school-specific social manners.

Pleasure of eating lunch together: An opportunity to realize the meaning of eating together

Most students consider lunchtime to be a positive experience. In response to a questionnaire, over 90% of first-, fourth-, and fifth-grade students stated that school lunches were fun (Maruyama et al., 2009). The reasons cited included "eating together is fun" and "school lunch meals are delicious" (Maruyama et al., 2009). However, more students listed "eating together" than "delicious meals" as the reason why they perceived lunchtime as fun (Maruyama et al., 2009). Thus, school lunch offers precious time for children to spend with their friends.

According to Furushima et al.'s (2006) observational research on first-grade students at lunchtime, the following six factors can influence children's behaviors during school lunchtime: relationship with others, the environment of foods, expansion of menu and tastes, familiarity with school life, body growth, and learning experience facilitated by teachers. Of these factors, "relationship with others" is the most important. There are some situations in which good eaters encourage their peers

to eat foods they dislike by telling their own stories and saying things such as “[this] meal is delicious” or “I like meals”. Such situations help motivate children to try new foods (Furushima et al., 2006). At school lunchtime in Japan, students learn to appreciate that eating together is a positive experience.

Nutritional and food education and reducing hated food

Japanese teachers think that instruction for children with different likes and dislikes is difficult during lunchtime (Isobe et al., 2017). Teachers often go through trial and error because there is no standard way to make children eat all kinds of foods, even those they dislike. However, in questioning children who grew to like the foods they once hated, 7.4–14.0% reported that they liked the food because it was delicious when they ate it in their school lunch (Matsumoto et al., 2012). This indicates that school lunches have a positive effect on children’s daily eating experiences.

Japanese culture emphasizes the need to eat all food provided at the table. This characteristic is an important part of Japanese food culture and child discipline. Children’s food dislikes arise from their individual situations and home environments. However, while eating foods they hate sometimes allows children to overcome their likes and dislikes, it may also cause stress.

Some people who have previously experienced school lunch have memories of eating hated foods after lunchtime was over (Takasawa & Kobayashi, 2019). Trying to expand children’s food preferences during lunchtime by forcing them to eat all foods they are served is stressful for children. Therefore, for children to eat hated foods, methods other than forcing them to eat must be implemented. Moreover, teachers need to learn more about effective school lunch instruction methods.

Learning local food culture through school lunch

There are many varieties of local food and meals in Japan because each region has a different climate. However, contemporary Japanese elementary school students have few experiences eating traditional or local meals (Tatematsu, 2008; Matsumoto et al., 2012). To introduce children to these regional foods, many schools have incorporated local foods and meals into their school lunch menus and educational activities (Morimoto & Miyahara, 2018). Research has shown that they can recognize local food and meals because of their exposure to them in school lunch programs (Tatematsu, 2008). This indicates that school lunch expands their preferences and improves their knowledge of their traditional local foods.

The future of Japanese school lunch

Discussion

Japanese school lunch programs have played an important role in children’s nutrition since their inception. In that sense, Japanese school lunch can be considered a

successful nutrition policy. This is due to the school lunch system in Japan being characterized by fairness (i.e., all children eat the same food together) and supplying meals at a low price. Furthermore, as mentioned above, habits implemented during school lunchtime have a certain effect on children's eating habits and healthy growth. The school lunch system also has educational effects, such as teaching students to collaborate with others, experience the joy of eating together, and learn about food culture.

However, it is necessary to pay attention to the reality that children with food allergies⁸ and different cultural backgrounds⁹ are increasing in Japan. The Japanese educational system emphasizes "equality of opportunity"; therefore, all children are served the same food in the same amount. However, because children have different constitutions and eating habits, "equality of opportunity" does not always result in "equality of outcome" for each child.

The following do not lead to "equality of outcome". For example, due to allergies and other circumstances, only one person in the class is forced to have a special meal, and in an environment where everyone is generally the same, the situation is that "only you are different". It may not be necessary to be afraid of such a situation, but many children and parents in Japan are afraid of it (only "I" am different from others). It can be said that the Japanese school lunch system, where everyone is forced to eat the same meal for their health, creates such fear. As a further example, the Japanese school lunch system makes children strongly believe that they should eat everything even if the food provided does not suit them. Alternatively, a child who does not/cannot eat or prepare or clean up after school lunch as many children can generally do is considered not doing what they should be doing, and that is a negative evaluation.

Kohri (1993) made an important criticism of the situation of Japanese school lunches, where it is "good" for a few to obey the masses. Alternatively, we could paraphrase it as children are forced to be convinced of what they should be/do before claiming what they really want to be/do.

Again, it can be said that the Japanese school lunch method, which emphasizes "equality of opportunity", has had a certain effect on the nutrition and education of children. However, it is important to consider whether it is acceptable for school lunches to remain unchanged in a changing Japanese society. Therefore, we would like to propose two perspectives for the future of the Japanese school lunch, based on the mechanism of school lunch provision in Japan thus far.

Perspectives

The first point should be to prioritize school lunchtime as a safe and enjoyable time for children above all else. It is important to build a relationship between children even if some of the children cannot eat or do something, it will be okay. The school lunch instruction and the school lunch implementation environment, which can achieve this, is required. No matter the health status or cultural background of a child, they must be able to enjoy themselves without worrying during lunchtime.

The same can be said for children with likes and dislikes, who only want small meals or take a long time to eat. It is important to keep children nutritious, healthy, and, more importantly, help them think about what to eat or what to do for their own and foster good relationships between them. They may be educated through keeping a safe and enjoyable lunch time and its instruction.

The second change that can be implemented is providing an opportunity in teacher training courses and teacher license renewal courses to learn the significance of school meals and practical theory of school lunch instruction. Educational practice research related to school lunch has shown that children feel happy or interested in eating lunch, when they know more about their school's lunch food, menu, or lunch chef (Waida & Kawamura, 2020). In addition, the school environment must allow teachers to have a relaxing and enjoyable lunchtime, rather than increasing their workload.

Future tasks

It is important to consider how the COVID-19 pandemic has changed the character of school lunch in Japan. Children may not be able to enjoy conversations during meals as easily as they did previously. However, Japanese school lunch will continue to play an important role in supporting children's growth and education. In an ever-changing society, it is necessary to maintain a school lunch program that will give children peace of mind and enjoyment. We are hopeful that changes and developments can be made that capitalize on the strength of the Japanese school lunch system.

Acknowledgments

The authors are grateful to all the children and teachers for their cooperation with the photographs. We would also like to thank everyone who cooperated in collecting the materials.

Notes

- 1 There are several theories about the year when school lunch provision began. The generally accepted year in Japan is 1889, but Tsuchiya and Satou (2012) pointed out that 1889 was the year that Chuai Elementary School was established, and school meals were first provided in 1892 when afternoon classes began (p. 26). A similar description appears in the educational history book of Yamagata prefecture (1991, p. 518). In Yamagata Prefecture, there is a record of volunteers donating food to schools in Yamagata City in 1873 and in Amarume Town in 1876, which indicates the provision of school lunches before 1889 (Yamagata Prefectural Board of Education, 1989).
- 2 For foreign support, LARA (Licensed Agencies for Relief in Asia) provided supplies in 1947, UNICEF (United Nations Children's Fund) donated skim milk powder in 1948, and in 1950, full school lunches (see Figure 12.1 for "full" meaning) were provided in eight cities using the flour funded by GARIOA (Government Appropriation for Relief in Occupied Areas).

- 3 Implementation rate of full school lunch for the total number of children in Japan.
- 4 In 1965, rice accounted for more than half of the daily energy intake (Ministry of Health, 1967).
- 5 However, it should be noted that what the study examined was not the number of family conversations during the meal but how aggressively the children themselves provided the conversation during the meal.
- 6 In 2001, The Science and Technology Agency and the Ministry of Education were integrated and renamed “Ministry of Education, Culture, Sports, Science and Technology (MEXT)”.
- 7 In Japan, parents have a duty to pay for their children’s school lunch. Free school lunches were provided for only a few years after World War II, until 1952.
- 8 Approximately 76% of school dietitians are responsible for children with food allergies (Imai & Odajima, 2004).
- 9 According to research conducted by MEXT (2019b, September 27), there are 87,164 foreign elementary school children in Japan.

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