A Comparative Analysis of Promotion Systems for Taste Education in Japan, France, and Italy: Suggestions for Japan’s Shokuiku (Food Education)

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Abstract:
In this study health promotion theories were employed to analyze systems for promoting taste education (one of the food pedagogies common to Japan, France, and Italy) with a view to making recommendations for the improvement of the institutionalization of Japan’s Shokuiku (food education) initiative. Each country’s promotion system was examined, with a special focus on its pedagogies; its political/institutional positioning in primary school education; the organizational structures of promoter institutions; and effective strategies within communities, institutions, and public policies. The methodology included a literature review of related articles, interviews with the leaders of key organizations, and observations of organizational activities (e.g., classes and training programs). The major findings relate to (1) enabling a pedagogical classification of several taste education variants; (2) articulating the similarities and differences of the legal status of taste education within the educational systems of each country; (3) identifying effective strategies for promoter organizations at two different levels (central and regional); and (4) unmasking the critical roles of previously hidden actors such as “intermediary” organizations (for example, French and Italian inter-professional organizations) in effectively promoting food education. All of these findings inform suggestions for effectively orientating Japan’s contemporary Shokuiku initiative.

Keywords: taste education, food education, health promotion, promotion systems, community organizing

1. Confusion among Food Educators in Japan and Indicators from European Taste Education

Many countries are increasingly calling for “educating” citizens about the rise of various agri-food and health problems. Japan is not an exception; for more than 10 years, its government has promoted a food education initiative called Shokuiku as a “comprehensive” approach to these societal problems, such as outbreaks of food safety incidents, the loss of traditional food cultures, and over-dependency on foreign products [1]. However, these problems cannot be fully solved only with food education, which generally takes time to produce tangible impacts. Therefore, it is vital to establish sustainable and effective promotion systems in order for real change to be effected.

Concerning these promotion systems, it is envisioned that the current Shokuiku should be promoted as a “national movement” in collaboration with ministries, local authorities, and other local stakeholders (e.g., schools, families, private companies, and non-profit...
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organizations) [1]. However, this envisioned promotion system, which is not highly institutionalized, ends up allowing for too much “independence” and “spontaneity” in the field, which often results in confusion among food educators and promoter organizations as they try to promote food education effectively and sustainably. Thus, these actors are urgently calling for the better institutionalization of systems for promoting Shokuiku.

In contrast to Japan’s struggle, France has promoted “taste education” (l’éducation sensorielle or l’éducation au goût) since the 1970s in collaboration with its ministries (namely agriculture, education, and health). As one of most institutionalized food pedagogies, the aim of which is to awaken children’s sensory systems and enhance their food literacy, taste education has been positioned as an alternative to traditional nutrition education. To assess its potential, Japanese researchers have been conducting studies in French primary schools to better understand the field practices [2-4]. However, these studies elucidated only the educational philosophies and contents of French taste education, without exploring how taste education has been positioned in French food education policies or how the actors and organizations concerned have been institutionalized.

In the meantime, Italy has also been independently promoting taste education (l’educazione del gusto) since the 1980s. Although only a few studies have been conducted to explore its potential, Shinohara’s field research at the Italian Taste Education Center in Prato and Slow Food International in Bra, which are key organizations in promoting taste education, indicates the significance of these organizations’ training programs for parents and prospective educators [5].

In the early 2000s, these European pedagogies were then introduced into Japan by some pioneering chefs and food advocates. Along with the increasing popularity of the nationwide Shokuiku initiative, a growing number of food educators have also tailored and incorporated these pedagogies into Japanese taste education, as well as establishing the relevant promoter organizations. These organizations have valorized their pedagogies in various educational settings, from casual workshops at public events to formal cooking or home economics classes within the school curricula. Researchers have also reacted to this growing trend by evaluating the educational impacts of these Japanese taste education methods [6, 7]. However, past studies did not explore the systems for promoting these taste pedagogies in Japan, which is integral to their effective implementation in order to generate the intended educational impacts.

The aim of this study was therefore to scrutinize taste education as a common pedagogy to France, Italy, and Japan, and to analyze its promotion systems within these three countries. To achieve this, the following four research questions were set based on the challenges facing both the researchers and promoters in the field: (1) What pedagogies are being promoted in France, Italy, and Japan? (2) How do these countries politically and institutionally position taste education in their school education? (3) What structures do key promoter organizations of taste education have? (4) What strategies and activities of these organizations are effective? In order to answer research questions 1 and 3, all possible taste education pedagogies and promoter organizations were analyzed. As for question 2, taste education’s positioning in school education systems was analyzed, but pedagogical or organizational differences were not explicitly addressed. Research question 4 relates only to pedagogies or organization related to school
education, not those being conducted elsewhere (e.g., at public events).

Founded on the findings of these analyses, an attempt is made to identify the characteristics and potential challenges of the current Shokuiku initiative and to propose a more effective and sustainable picture of the promotion system in Japan.

2. Theories and Methodologies

2.1. Search for Theoretical Frameworks

2.1.1. Application of Health Promotion Theories to Food Education Research

No research has provided a theoretical framework for analyzing promotion systems in food education research. Therefore, at this retrieval stage it would be helpful to explore theories in health promotion (more broadly in the discipline of public health). This is because health promotion is defined as “the process of enabling people to increase control over their health and its determinants, and thereby improve their health” [8], and it largely shares the core similarities with the promotion of intended dietary behaviors (i.e., food education). In addition, experts in health promotion have recently shifted their focus of control from individual to environmental factors [9]—where “food” is seen as an indispensable factor [10]. For these two reasons, it can thus be considered reasonable to apply health promotion theories to food education. As such, this study employs theoretical frameworks holistically proposed in the Guide for Health Promotion Practice of the U.S. National Cancer Institute (NCI) [11].

2.1.2. Five Levels of Influence for Health-related Behaviors

As proposed in the aforementioned Guide, the ecological perspective, which emphasizes the interaction between and interdependence of factors within and across all levels of a health problem, is a foundation for contemporary health promotion. In analyzing health promotion programs, two key concepts of the ecological perspective have to be taken into account. First, behavior both affects and is affected by multiple levels of influence; second, individual behavior both shapes and is shaped by the social environment (reciprocal causation) [11].

To explain the first concept, McLeroy et al. identified five levels of influence for health-related behaviors and conditions (Table 1) [12]: (1) intrapersonal factors, (2) interpersonal factors, (3) institutional or organizational factors, (4) community factors, and (5) public policy factors. Researchers have produced several theories specific for the intrapersonal, interpersonal, and community (e.g., community organizing theory) levels of influence. On the other hand, theories for the institutional/organizational factors are needed that account for formal and informal rules and regulations for operation. The table below summarizes these levels of influence and their characteristic theories.

| Level of Influence                  | Definition                                                                 | Characteristic Theories                      |
|------------------------------------|---------------------------------------------------------------------------|---------------------------------------------|
| Intrapersonal Factors              | Characteristics of the individual such as knowledge, attitudes, behavior, self-concept, skills, etc. This includes the developmental history of the individual. | Health belief model, Stages of change model |
| Interpersonal Factors              | Formal and informal social network and social support systems, including the family, work group, and friendship networks. | Social cognitive theory                     |
| Institutional/organizational Factors | Social institutions with organizational characteristics, and formal (and informal) rules and regulations for operation. | Community organizing theory, Diffusion of innovations theory |
| Community Factors                  | Relationships among organizations, institutions, and informal networks within defined boundaries. |                                            |
| Public Policy Factors              | Local, state, and national laws and policies.                              |                                            |

Source: Edited by the author using the National Cancer Institute [11] and McLeroy et al. [12].
organizational and public policy levels are yet to be solidly established and thus the focus of analysis of these levels has to be announced according to the theme of the study.

2.2. Methodologies

2.2.1. Focus of Analysis

As this study focuses on systems for promoting taste education, it analyzes these systems' semi-macro levels of influence, namely institutional, community and public policy levels. This study is not meant to look at intra- and inter-personal levels of influence, since the focus of analysis on these micro levels of influence is likely to end up with discussion on educational contents or educational impacts on children and deviates itself from its main purpose – promotion systems.

It should be also noted again that “health promotion theories” meant in this study include not only well-established analytical frameworks (such as community organizing theory) but also the application of the analytical reference points (such as McLeroy’s theory on multiple levels of influence); and thus the following four research questions are all addressed within the framework of health promotion theories (see Table 2).

2.2.2. Analysis Frameworks

2.2.2.1. Pedagogies as Institutions

In most of the previous studies (mainly on food education), taste education has been discussed mainly from the perspective of impact evaluation (“what educational impacts” and “what effective educational content and instruction” – i.e., intra- and inter-personal factors). To facilitate a different analytical approach, in this study, following the definition of “institutions” in health promotion theories (see Table 1), pedagogies are considered as “rules and systems that enable students to achieve set goals” and are viewed as analyzable subjects within the health promotion framework.

Although past studies reported several taste education variants in Europe, some of which were incorporated into Japan, it is still unclear what types of pedagogy variants are currently implemented, because they tend to be confused as an identical pedagogy called mikaku-kyoiku (taste education) in Japan. To address the first research question and to illustrate the characteristics of these pedagogies as “institutions,” the main focus of analysis is on their “educational objectives and targets” as the “set goals” of given institutions. A further aim is to identify their characteristic educational content, promoter organizations, and pedagogical relationships, all of which represent “rules and systems” of given institutions; however, the details of these factors will be closely discussed in another paper.

2.2.2.2. Political/Institutional Positioning in School Education

Past researchers in Japan were unable to

| Research Question | Main Influencing Factor |
|-------------------|-------------------------|
| (1) Pedagogies    | Institutional factors, particularly, their educational goals and targets toward which certain rules and systems are institutionalized. |
| (2) Educational systems | Public policy and institutional factors, such as food education-related laws, regulations and curricula. |
| (3) Organizational structures | Institutional/organizational factors which determine the driving power of the promotion, such as organizational size, professionalism of the staff, and decision-making process. |
| (4) Promotion strategies | Community factors which relate to the critical concepts in community organizing (such as participation) (which are analyzed by using community organizing theory); and institutional/organizational factors in the large-scale community approach, such as securing political commitment and financial resources (which are analyzed by using the EPODE approach). |

Source: Developed by the author following the theme in section 2.2.2.
elucidate within which educational frameworks and in what political contexts taste education was positioned and implemented in each country. Introducing the analytical pointers to institutional and public policy factors that are proposed in health promotion, the focus of analysis is therefore on the underlying food education policies of each country, taste (and food) education's legal and institutional status in school education, educational curricula, and actual practices in primary schools.

2.2.2.3. Organizational Structures of Promoter Institutions

Within the political framework of Shokuiku in Japan, public and private organizations in the agri-food and health sectors are encouraged to mobilize to promote food education. As such, their effective collaboration with schools is crucial to the success of the promotion of food education. These promoter organizations are thus granted “independence” and “spontaneity” under the current Shokuiku policy. However, strong organizational structures are required for sustainable and effective promotion. Therefore, the following elements within the structures of promoter organizations are analyzed as the driving organizational or institutional factors for promoting taste education: legal status, structural size and constituent members, organizational functions, professionalism, decision-making processes, activities (particularly, those within school education), pedagogies, and their relationships with schools.

This focus of the analysis is achieved by introducing the health promotion theories’ institutional and organizational factor analysis. These targeted elements have not been specified in health promotion theories; thus they are an original element in this study.

2.2.2.4. Promotion Strategies of School-based Taste Education Projects

This section targets only taste education projects that take place within school education, not those that occur elsewhere (e.g., at public events). To preempt the results from the third analysis of the organizational structures, there are two types of promoter institutions: (1) regional and independent organizations that work within or adjacent to communities and (2) central institutions that unite such regional organizations. According to such organizational functions, two different theoretical frameworks in the field of health promotion are employed to analyze the promotion strategies of organizations’ taste education projects: to analyze the community factors of their promotion, community organizing theory is used for regional and independent organizations, whereas the Ensemble Prévenons l’Obésité Des Enfants (EPODE; Let’s Prevent Child Obesity Together) approach, which provides reference points for analyzing the institutional/organizational factors of the large-scale community approach, is applied for central institutions. It should be noted that community organizing theory analyzes “projects” themselves whereas the EPODE approach assesses the “promotion strategies” of the organizations that run the projects. Training programs for prospective educators, as emphasized by Shinohara et al [5], are also analyzed.

(1) Community Organizing Theory

Community organizing is a process through which community groups are helped to identify common problems, mobilize resources, and develop and implement strategies to reach collective goals [11]. It is not a single mode of practice, and Rothman (2001) classified related change models into three general types (namely locality development, social planning, and social
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Table 3: Critical Concepts in Community Organizing

| Concept            | Definition and Explanation                                                                 |
|--------------------|-------------------------------------------------------------------------------------------|
| Participation and Relevance | Community organizing that “starts where the people are” and engages community members as equals. |
| Critical Consciousness        | A consciousness based on continuous cycles of reflection and action in making change.      |
| Issue Selection              | Identifying winnable and specific targets of change that unify and build community strength. |
| Community Capacity           | Community characteristics that affect the community’s ability to identify, mobilize, and address problems. |
| Empowerment                  | A social action process through which people gain mastery over their lives and their communities. |
| Social Capital               | Relationships and structures within a community that promote cooperation for mutual benefit. |

Source: Edited by the author using Minkler [14].

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action) depending on whether they are process-oriented, task-oriented, or both [13]. However, these models sometimes overlap and can be combined, as they share several concepts that are key to achieving and measuring change (Table 3) [14], including: participation and relevance, critical consciousness, issue selection, community capacity, empowerment, and social capital. Although fulfilling all six concepts does not necessarily guarantee that change will be effectuated, the concepts represent the most promising factors of success in community organizing and are thus used to analyze each project that regional/independent organizations promote.

(2) The EPODE Approach

The EPODE approach can provide a useful lens for analyzing the institutional/organizational factors of large-scale community-based projects that are promoted by central organizations. It was initially developed from the experience of a French long-term school-based nutrition education program, the Fleurbaix Laventie Ville Santé (FLVS) study, which was followed by a number of intervention programs over 12 years that resulted in a substantial decrease in the prevalence of overweight children [15]. As such, the EPODE approach became a foundation for planning and measuring large-scale community-based health promotion programs and has subsequently been applied to 30 programs in 22 European countries (with the most in France) since 2004 [16].

Although other theoretical frameworks for evaluating large-scale community-based projects may exist, it is reasonable to employ the EPODE approach for this study for the following reasons: first, it might have a relatively higher affinity with health promotion projects in European communities; second, the approach’s pedagogical link with taste education has been already shown by taste education researchers [17].

To put the EPODE approach into practice, a central coordination team (CCT) uses organizational techniques to train and coach local project managers in each community. The local project manager’s role is to mobilize a wide diversity of local stakeholders, especially in schools, to foster health-related behaviors among children and families. In this study the EPODE approach can be applied by treating central institutions as CCTs and regional/independent organizations as local project managers. To explain the relationships between the CCTs and local project managers, a conceptual picture of the possible actors in promoting taste education in the three countries (e.g., central or regional promoter organizations, ministries, professional organizations, and food companies) is presented in Figure 1 based on documents published by the Cabinet Office of Japan [18]. In the EPODE approach, the four pillars (namely political commitment, resources, support services, and evidence) are identified as factors for success. As such, this study uses them as a lens for evaluating health promotion projects (Table 4).
3. Study Design and Implementation

To address the four research questions, the study was designed in the following manner: Regarding the first research question (which relates to pedagogies), literature about the histories of the transmission and transformation of variant taste education pedagogies and textbooks from corresponding training programs were reviewed. In addition, leaders of the promoter organizations were interviewed and training programs were observed to elucidate characteristic objectives that cannot be determined solely from textbooks.

Regarding the second research question (which addresses school education systems), related articles and governmental documents were reviewed. Interviews were also conducted with the leaders of promoter organizations to learn more about their actual practices.

Regarding the third research question (which concerns organizational structures) and the fourth research question (which refers to promotion strategies), data was collected from literature about the promoter organizations and through interviews with these organizations’ leaders. All the data was collected according to the schedule presented in Table 5 (June 2015-October 2016).

Table 4: The EPODE Approach’s Four Pillars

| Political Commitment | Gaining formal political commitment from the key organizations’ leaders of key organizations. |
|-----------------------|-------------------------------------------------------------------------------------------------|
| Resource              | Securing sufficient resources to fund central support services and evaluation, as well as contributions from local organizations to fund local implementation. |
| Support Services      | Planning, coordinating, and providing support services (such as partnership management and training programs) for community practitioners and leaders. |
| Evidence              | Using evidence from a wide variety of sources to evaluate a program’s process and outcomes. |

Source: Developed by the author using Borys et al. [15].

Table 5: Data Collection Schedule

| Organization                                      | Content                          |
|---------------------------------------------------|----------------------------------|
| June 28–30, 2015 in Japan                         | Interview                        |
| La Semaine du Goût au Japon office                | Interview, Observation           |
| Food Consciousness Institute                      | Interview                        |
| Slow Food Suginami TOKYO                          | Interview                        |
| Japan Taste Education Association (MIKU)          | Interview                        |
| August 25–September 23, 2015 in Italy and France  | Interview (e-mail)               |
| Italian Taste Education Center                    | Interview                        |
| Slow Food International                           | Interview                        |
| La Semaine du Goût office                         | Interview                        |
| Science Center of Taste and Food                 | Interview                        |
| Eveil’O’Gout                                     | Interview                        |
| March 6, 2016 in Japan                            | Interview (telephone)            |
| IDGE                                              |                                   |
| March 22–29, 2016 in France                       | Course-taking                    |
| Eveil’O’ Goût (training program)                  | Course-taking                    |
| After-school facilities in Dijon                  | Observation                      |
| C.Reverdy, Taste Education Researcher             | Interview                        |
| ANEGJ                                             | Interview                        |
| April 22–23, 2016 in Japan                        |                                   |
| MIKU (training program)                           | Course-taking                    |
| August 6–7, 2016 in Japan                         | Course-taking                    |
| Food Consciousness Institute (training program)    |                                 |
| September 21, 2016 in Italy                       | Course-taking                    |
| Technical Scientific Committee of Italian Food Education | Interview |
4. Results and Discussion

4.1. Pedagogies as Institutions

Although “taste education” (mikaku-kyoiku) in Japan generally tends to be considered one pedagogy, this research found that at least seven distinct well-institutionalized pedagogies are currently being promoted in the three countries studied (Table 6). It also discovered that there used to be three distinct earliest models—namely France’s Puisais [19], Italy’s Alessandro [20], and Japan’s Ajiwai methods [21]—particularly two of which (Puisais and Alessandro methods) have later transmitted to Japan and evolved into the contemporary seven different pedagogies excluding the independent Ajiwai method.

The research also enabled the seven pedagogies to be classified based on the educational objectives: the Puisais, Alessandro, Ajiwai, and MIIKU methods [22] centers their objectives at the development of one’s capabilities and well-being, while the French/Japanese La Semaine du Goût (LSG) [23, 24] and Slow Food methods [25] emphasizes hedonic aspects of eating (such as “the discovery of sensory pleasure of eating”). This classification does not negate the hedonic pedagogies, since they might be more effective at casual educational opportunities (e.g., ateliers at public events) by offering greater potential for raising public awareness toward taste education.

Another classification could be made based on their educational targets: European pedagogies (i.e., the Puisais, French-LSG, Alessandro, and Slow Food methods) and Japanese-LSG method are targeted at children, whereas Japanese pedagogies (i.e., the Ajiwai and MIIKU methods) are targeted more toward adults (which are often seen in their training programs). The difference in educational targets may be due to the shorter history of promoting Japanese sensory-based pedagogies, which has resulted in these pedagogies being less popular among schoolteachers and more novel to Japanese educational curricula.

The interview also elucidated that some

| Pedagogy | Promoter Organization | Educational Contents | Educational Objective |
|----------|----------------------|----------------------|----------------------|
| Puisais method | ANEGJ, Eveil'O'Goût, IDGE | Developed by Prof. Jacques Puisais, a French oenologist; composed of 10-12 lessons ranging from the ‘five senses’ to ‘food tradition and culture’ [19]; targeted mainly at children. | Bien-être (well-being) |
| French-LSG method | LSG office in France | Derived from the Puisais method with a greater emphasis on hedonic aspects of eating; conducted at a national event and composed of 1-2 lessons [23]; targeted mainly at children. | Plaisir de manger (the pleasure of eating) |
| Japanese-LSG method | LSG office in Japan | Derived from the French-LSG method with the addition of the fifth taste ‘umami’; conducted at a national event and composed of 1-2 lessons [24]; targeted mainly at children. | The pleasure of eating |
| Alessandro method | Italian Taste Education Center | Developed by Alessandro Venturi, an Italian local historian; the number of lessons is not fixed but lessons are conducted throughout the school semesters; combined with school garden lessons; targeted mainly at children [20]. | Personalità (personality building) |
| Slow food method | Slow Food International Sow Food Suginami TOKYO | Derived from the Alessandro method; composed of 1-2 lessons and often conducted at a public event; combined with school garden lessons; targeted mainly at children [25]. | The pleasure of eating |
| Ajiwai method | Food Consciousness Institute | Developed by Prof. Shimagawa, a Japanese environmental educator; composed of 1-2 lessons and often conducted at a public event (for children); composed of 1-2 day programs (for adults); refers to the Alessandro and Puisais methods but is based on Eastern philosophies [21]. | Ningenryoku (overall capabilities) |
| MIIKU method | Japan Taste Education Association (MIIKU) | Derived from the Japanese-LSG method with a greater emphasis on cooking sciences; composed of 1-2 day programs (for adults) [22]. | Family health |

Source: Developed by the author following the analysis in section 2.2.3.1.
Note: Regarding characteristic educational objectives, the one listed for the Slow Food method was identified through the literature [25] while the other six were determined from the results of interviews with the leaders of the concerned organizations.
promoter organizations, most evidently those with capability-orientated goals, intentionally tried to distinguish their pedagogies from the hedonic pedagogies (such as the Ajiwai method vs. the Japanese-LSG method; the Puisais method vs. the French-LSG method; and the Alessandro method vs. the Slow Food method). Given this pedagogical tension, the clear classification made in this study would be helpful for taste educators in the field to differentiate their pedagogies from competing ones.

4.2. Political/Institutional Positioning in School Education

A first analysis was made of the political and institutional frameworks related to taste education (Table 7). To begin with, it should be mentioned that in the three countries taste education is generally regarded as "a type of food education." Thus, when implemented in school education, its practice is inevitably influenced by the institutional framework of school-based “food education.”

In Japan, taste education is not as socially present as in France and Italy and it does not appear in any government document concerning food education policy. Therefore, what was described here was the institutional or political positioning of “food education” (which is not limited to taste education). In Japan, it is the Basic Law on Food Education (2005) that first provides the legal orientation for school-based food education practices [26]. This Law prescribes its basic ideas, such as principles and plans, (Article 2-8), as well as the responsibilities of those who concerned (Article 9-13), one of which applies to those concerned with school education (Article 11). Legally speaking, these “responsibilities”, which are unique to basic laws in Japan, are interpreted as merely “instructive”; thus, they do not obligate any concrete action, nor are those concerned called to their liabilities(2).

Simultaneously, the Law also stipulates that the state, prefectoral and local authorities shall “endeavor” to develop basic food education plans (Article 16-18). In addition, it specifies the content of these basic plans (Article 19-25). For example, the state and local authorities’ attempts to ensure food education within schools and nursery schools shall include technical support for the development of food education guidelines, the construction of instruction systems (e.g., deployment of nutrition teachers), the promotion of children’s understanding of food (e.g., through locally-unique school meals, hands-on learning at agricultural farms), and awareness-raising about the health of body and mind, to name a few (Article 20). These Articles not only describe the “endeavors”, but also provide legal norms according to which corresponding administrative

| Taste Education | Japan | France | Italy |
|-----------------|-------|--------|-------|
| Concept         | Part of food education | Part of food education | Part of food education |
| Legislation     | Basic Law on Shokuiku (2005)/ School Lunch Program Act, MEXT’s Curriculum Guidelines, MEXT’s Nutrition Education Code | PNNS (2011), PNA (2011), Vincent Peillon Law (2013), LAAF (2014) Education Code | Guidelines for Food Education in Italian Schools (MIUR, 2011, 2015) |
| Ministries concerned | Agriculture, education, health | Agriculture, education, health | Agriculture, education, health |
| Opportunity     | Curriculum, *¹ school lunchtime, *¹ extracurricular activities | Curriculum, *¹ school lunchtime, *¹ extracurricular activities | Curriculum, school lunchtime, extracurricular activities |
| Curriculum      | Home economics, integrated studies, special classes | Discovery of the world, language, experimental science | Not clear, but offered within multidisciplinary subjects |
| Educator        | Professionals (e.g., animators, invited chefs), teachers, school dietitians | Professionals (e.g., animators, invited chefs), teachers, school dietitians | Professionals (e.g., animators, invited chefs), teachers, school dietitians |

Source: Developed by the author following the analysis in section 2.2.3.2.
Note: An asterisk (*) signifies that taste education classes are actually offered within set educational opportunities.
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directives and subsidization can be carried out..

In response to the enactment of the Law, the following regular laws were amended: Firstly, the School Lunch Program Act was amended, whereby those concerned with school meals (e.g., nutrition teachers, school principles) shall endeavor to implement food education [27]. Secondly, a series of subsequent revisions of the Curriculum Guidelines (2008) were also made [28, 29], whereby “food education” was clearly prescribed (for example, within physical education programs and home economics for elementary schools). However, importantly, these institutional frameworks do not favor or disfavor any particular pedagogy, and thus concrete pedagogies are to be determined by individual schools, any of which can potentially employ the pedagogies that were identified in Section 4.1. (Table 6).

On the other hand, in France taste education is more socially present than in Japan and therefore its government has repeatedly prescribed “taste education” as a recommended school-based pedagogy in its national policies, such as its health promotion policy, Programme National Nutrition Santé (PNNS; National Nutrition and Health Program) since 2001 and its agri-food policy, the Programme National de l’Alimentation (PNA; National Food Program) since 2011 [30, 31].

Although taste education is not prescribed in legal texts, there are two types of legal orientations for the implementation of “food education” in schools: The first legal orientation was made by la loi d’avenir pour l’agriculture, l’alimentation et la forêt (LAAF; the Law of the Future for Agriculture, Food and Forest) in 2014, in its Preliminary Chapter of which the implementation of “food education” for the young is stipulated as one of the objectives for PNA [32]. Although LAFF itself does not define specific actors or occasions for food education, its implementation within schools was finally stipulated in the subsequent amendment of Code de l’éducation (Education Code) [33].

Secondly, practices of “health education” in schools were stipulated in the Vincent Peillon Law (2013), the parcours éducatifs de santé (PES; health education course) that was developed based on this Law, as well as the subsequently amended Code de l’éducation (Education Code) in 2016 [34-36]. Since subjects related to “food” are clearly prescribed in PES, the implementation of food education within schools was legally orientated from the perspective of health education. Again, although “taste education” is not prescribed in all of these legal texts, it has been positioned as a “recommended pedagogy” by the related ministries (3).

In Italy, although the implementation of taste education (and more generally food education) in schools is not yet a legal obligation, its government organized the scientific committee on food education and produced the “Guideline for Food Education in Italian Schools” in 2011 (which was later updated in 2015) to better prepare and promote the success of the Expo Milano 2015 [37, 38]. In these guidelines, the “sensory approach to food” (which implicitly means “taste education”) is repeatedly articulated as a recommended school-based pedagogy.

To sum up, although the duties are stipulated differently, the implementation of “food education” within the schools is legally prescribed for Japan and France and strongly (but not legally) encouraged for Italy. However, the level of implementation largely depends on individual schools in all three countries. “Taste education” can be part of such food education, but its institutional or political presence varies between France, Italy and Japan.

Next, the actual practices of taste education
were identified in the available literature. In Japan, the reported cases relate to taste education classes that were flexibly integrated into the school curricula (mainly integrated studies and home economics) and mostly taught by food education professionals (e.g., facilitators of the promoter organizations, invited chefs and pâtissiers) in collaboration with schoolteachers and school dietitians [39, 40]. Some schools also offer taste education classes as part of an extracurricular Saturday morning program.

Similarly, in France taste education classes are delivered by food education professionals (as mentioned above) or sometimes by trained schoolteachers or school dietitians, whose activities are flexibly incorporated into a wider range of national curricula, such as language (French), découvrir le monde (discovery of the world), science, social studies [2], and other extracurricular activities such as school lunchtimes [41]. Although both in Japan and France taste education classes are not standardized at this time within the set national curricula, based on its more trans-disciplinary practices noted above and its institutional framework, such as the PES, more classes can be potentially provided in food education-related disciplines (e.g., physical education and history) in French school education [35].

The Italian situation could not be surveyed, but the implementation of taste education is basically recommended in “interdisciplinary” subjects [37, 38], and this principle also applies to Japan and France. This should be obvious, given the interdisciplinary nature of food, but this curricular flexibility and inter-connectivity often requires developing schoolteachers’ skills and professionalism, as well as fostering the mobilization of promoter organizations and other food professionals within the same community, which will be further examined in the following sections.

4.3. Organizational Structures of Promoter Institutions

The identified key elements within the structures of Japanese and European promoter organizations are summarized in Tables 8 and 9. Two types of organizational functions were identified: (1) regional or independent organizations that are working within the community, namely the Food Consciousness Institute (FCI), MIIKU (Japan Taste Education Association), Slow Food Suginami TOKYO (SF Suginami), Institut de Développement du Goût chez l’Enfants (IDGE: Institute of Children’s Taste Development), Eveil’O’Goût, and the Italian Taste Education Center (ITEC); and (2) central institutions that unite these regional organizations, namely the LSG offices in France and Japan, Slow Food Japan, Association Nationale pour l’Education au Goût des Jeunes (ANEGJ: National Association for Taste Education for the Young) and Slow Food International (SF International).

It was also found that these organizations implemented taste education classes in the following three contexts: only within school education (including extra-curricular activities) (i.e., SF Suginami); exclusively outside of school education (i.e., MIIKU and ANEGJ); and both within and outside of school education (the other organizations). It is also confirmed that some regional or independent organizations (i.e., the LSG-office in Japan, FCI, MIIKU, Eveil’O’Goût, and ITEC) and ANEGJ provide training programs for prospective educators (10-45 trainees per year), but that these programs are not necessarily directed at schoolteachers.

It was also found that the regional organizations in all the three countries have relatively small organizational sizes (2-6 staff members) and few professionals to facilitate the educational activities and training programs. As for the organization-school relations, there are
some reported cases in which these organizations approached schools or were approached by them individually and then mobilized possible educators or facilitators into extra-curricular or flexible curricular activities in the contacted schools. Nevertheless, the interviewees at these regional or independent organizations indicated that their connection with schools was not adequately established and that they were not usually equipped with organizational or promotional strategies (such as matching and press relations) and the professionalism to explore further educational opportunities in schools.

### Table 8 Organizational Structures of Japanese Promoter Organizations

| Organization | Legal Status | Organizational Size and Constituents | Function | Staff Professionalism | Decision-making Process | Activity (AN/ECA/ FCA) | Pedagogy |
|--------------|--------------|-------------------------------------|----------|-----------------------|------------------------|------------------------|----------|
| LSG office in Japan (2010) | Private PR company | 2-5 management staff* 189 constituting schools | Central | PR Event planning | Decision made by the executive manager* | Classes (ECA, 460 classes in 2016; and AN) Training program (AN, once a year) | Japanese-LSG method |
| Food Consciousness Institute (2011) | General incorporated association | 6 board members* | Independent | Biology Food business Taste education | Consensus reached by board members* | Classes (AN, and ECA) Training program (AN, 10 trainers per year) | Ajiwa method |
| Japan Taste Education Association (MIKU) (2011) | General incorporated association | 2 management staff* | Independent | Taste education | Decision made by the executive manager* | Classes (AN) Training program (10 participants per year) | MIKU method |
| Slow Food Japan (2004) | Unincorporated association | 3-5 management staff* 29 constituting organizations* | Central (national), regional (global) | PR | Consensus reached in the General Assembly | Classes at public events (AN) | Slow Food method |
| Slow Food Suginami TOKYO (2002) | Unincorporated association | 2-5 management staff* | Regional | Not clear | Consensus reached by the management staff | Classes (ECA, 30 participants per year) | Slow Food method |
| IDGE (2012) | Unincorporated association | 2 management staff, 6 board members* | Independent | Home economics Taste education | Consensus reached by the management staff | Classes (ECA, 10 classes in 2016): Training program (AN, 20 trainers per year) Publication | Puisais method |

Source: Developed by the author following the analysis in section 2.2.3.3.

Note: 1) An asterisk (*) signifies that the data was collected from an interview with the organization’s leader.

2) Different settings for their activities are articulated in the following manners: the AN (Activity Not-related) represents an activity which is not directly related to school education; the ECA signifies an extra-curricular activity such as Saturday optional classes and after-school activities; and the FCA means an activity flexibly integrated into the school curricula. All of these also apply to Table 9.

### Table 9 Organizational Structures of French and Italian Promoter Organizations

| Organization | Legal Status | Organizational Size and Constituents | Function | Staff Professionalism | Decision-making Process | Activity (AN/ECA/ FCA) | Pedagogy |
|--------------|--------------|-------------------------------------|----------|-----------------------|------------------------|------------------------|----------|
| LSG office in France | Private PR company | About 30 management staff* | Central | PR Event planning | Not clear | Classes (ECA, 4,300 classes in total since 1990; and AN) | French-LSG method |
| ANEGJ (2012) | Association of the French Law of 1901 | 2-3 management staff, 9-12 council members * 26 constituting organizations | Central | Taste education | Consensus reached in the General Assembly | Training program (AN, 5-45 trainees per year) Classes at public events (AN, once a year) | Puisais method |
| EveilTOGoiIt (2010) | Association of the French Law of 1901 | 3-5 management staff 3 council members* | Regional | Taste education | Not clear | Classes (ECA, and AN) Training program (AN) | Puisais method |
| Italian Taste Education Center (2008) | Association of social promotion | 2 management staff* | Independent | Taste education Local history study | Decision made by the management staff | Classes (ECA, and AC) Training program (12,000 participants in total since 1990) | Alessan-dro method |
| Slow Food International (1989) | Non-profit association | Not clear 300 Italian constituting organizations 500 school gardens in Italy | Central (national and global) | PR Event planning | Not clear | Classes at public events (AN) Garden classes (ECA) | Slow food method |

Source: Developed by the author following the analysis in section 2.2.3.3.

Note: An asterisk (*) signifies that the data was collected from an interview with the organization’s leader.
4.4. Promotion Strategies of School-based Taste Education Projects

Community organizing theory was applied to the projects of the three regional and independent organizations whose activities were related to school education, while the EPODE approach was applied to the "promotional strategies" of the four central organizations whose activities relate to school education or include training programs for potential educators. Additionally, as indicated by Shinohara et al. [5] and the research results provided in sections 4.2. and 4.3., the six training programs for prospective educators provided by the promoter organizations were also analyzed.

4.4.1. Regional and Independent Organizations

In this section the most characteristic projects of the selected three organizations (namely ITEC’s “A Scuola con Gusto” [Schools with Taste]; Eveil'O'Goût’s “BIOSENSO”; and SF Suginami’s “Let’s Find Real Tastes with Parents”) are analyzed in relation to the six important factors in community organizing (see Table 3). An asterisk (*) indicates that the data was collected from the literature, while a double asterisk (**) indicates that it was gathered from the interviews. The identified effective strategies that the three organizations are implementing to fulfill the six factors are summarized in Table 10.

(1) A Scuola con Gusto in Viareggio (Italian Taste Education Center) [20]

In response to the vast amount of food leftovers from school meals for children aged 3-5, ITEC contacted the city government's Division of Education, five kindergartens, a catering service company, and farmers in the community to coordinate community dialogues (participation).* The purpose of these dialogues was to discuss why the children did not like school meals and realized the need for community members (including the children themselves) to "re-evaluate the quality of food, their local traditions and cultural heritages (critical consciousness).”** The center decided to run a multi-year food and taste education project in schools to address the problem. To do so, it surveyed the children and shared the findings with their parents. The center also constructed a school garden to foster parents' participation (participation).* Regular community meetings were held in which the center provides taste education training workshops for teachers, parents, and catering staff (community capacity).* The community meetings were used to discuss supplying local foods, such as blue-skin fish, for school meals (community capacity)* and gradually increasing the number of local recipes being utilized. In addition to the procurement discussions, the members in the training programs provided taste education

| Table 10 Effective Strategies of Regional/Independent Organizations in Japan, France, and Italy |
|---------------------------------------------------------------|
| Community Organizing Factors | (1) A Scuola con Gusto | (2) BIOSENSO | (3) Let’s Find Real Taste with Parents |
| Participation and relevance | Dialogues around the questionnaire results, training workshops, and school gardens | Dialogues | Dialogues with various stakeholders |
| Critical consciousness | Sharing questionnaire results with parents | Nothing particular | Nothing particular |
| Issue selection | Nothing particular | Nothing particular | Nothing particular |
| Community capacity | Fishing village (which enables the local fish supply) Training workshops for members | University town (which enables scientific supports) | Urban agriculture (which enables the local vegetable supply) |
| Empowerment | Using the local food supply to make school meals Constructing school gardens | Nothing particular | Nothing particular |
| Social capital | Schools with farmers (as characterized by the farm visits) | Nothing particular | PTA with farmers, chefs, members in shopping streets (as characterized by the community cafe) |

Source: Developed by the author following the analysis in section 2.2.3.4.1.
classes for the children so that they would not be afraid of new recipes, which in turn enables the quality of school meals to be improved and the amount of leftovers to be reduced (the whole process: empowerment). This success has led to the development of a trust relationship between schools and farmers, to an extent that farmers are willing to accept schools’ farm visit requests (social capital).

(2) BIOSENSO in Dijon (Eveil’O’Goût) [42]

In response to the public’s decreasing awareness that food can foster children’s senses and sociality, Eveil’O’Goût organized a two-month taste education project with financial support from agri-food foundations. To implement the project, the organization contacted an périscolaire (after-school activity center) in the community to discuss related issues (participation). The activity center decided to provide educational opportunities, but it had to slightly modify the project contents to satisfy the funders’ needs (issue selection). The project’s contents were basically developed from scientific evidence that the organization accumulated in collaboration with Le Centre des Sciences du Goût et Alimentation (CSGA; Science Center of Taste and Food) and the University of Burgundy (community capacity). The project used educational tools such as puppets to attract the attention of around ten children aged 3-6 and organic or alternative foods as tasting materials and then culminated with the development of new recipes using these sustainable foods by the young children. The project’s success has enabled Eveil’O’Goût and the activity center to develop a rapport (social capital) and the staff of the activity center became more confident and motivated to launch future projects (the whole process: empowerment).

(3) Let’s Find Real Tastes with Parents at Suginami Ward (Slow Food Suginami TOKYO) [43]

Responding to “an increasing distance between farmers and consumers” despite Suginami Ward’s characteristics as an urban agricultural site within Tokyo, SF Suginami contacted the community’s parent-teacher association (PTA) to raise parents’ awareness of the issues (participation). It hosted dialogues to discuss and recognize the insufficiency of opportunities for a new type of “sensory-based” and “pleasure-based” education (e.g., Slow Food’s taste education) for both children and parents as well as the inadequate community collaboration to implement this education (critical consciousness). To address these problems, the organization reached out to workers in shopping streets, local farmers, and chefs in the community and decided to implement a series of taste education classes (held once per semester with 20 participants) as part of the optional Saturday morning classes held at school (issue selection). The project involved procuring food from local farmers and at the same time recognizing the community’s strength as an urban agricultural community (community capacity). A series of taste education classes strengthened relationships among the PTA, farmers, chefs, and people in the shopping streets (social capital), which has paved the way for upcoming projects, such as a “Kodomo-shokudo” (a “children’s cafeteria,” a community cafeteria for children in need) (the whole process: empowerment).

Below the related potential challenges that were indicated from the three cases and their corresponding effective strategies (see Table 10) are discussed. The first challenge, as oftentimes problematized in the previous literature, is “the encouragement of parents’ participation in
processes related to taste education projects. The additional interview with the leader of SF Suginami has shown that even if it contacts a school’s PTA, it often fails to reach its most desired targets: families who are less interested in food education. As proposed in community organizing theory (e.g., Paulo Freire [44], a Brazilian educator), one solution for this would be a dialogical process. This dialogue, however, should be “strategically devised” to foster a critical consciousness of the issue among the parents and provide motivations for their post-dialogue participation in the concerned project. The Italian case strategically integrated some effective materials into its dialogues, such as the result sharing of the questionnaires on their children’s dietary behaviors and the skill-development for the parents through taste education training workshops.

The second challenge is the “empowerment,” which, in theory, represents both processes and change outcomes for individuals, the organizations of which they are a part, and a community’s social structure itself [45]. A clear contrast has been shown among the three cases: in the French and Japanese cases, empowerment takes place only between the individuals involved in the projects (although the Japanese case involved a more variety of stakeholders). In the Italian case, on the other hand, the involvement of a variety of stakeholders effectively brings the transformation of some community social structures themselves, such as the construction of school gardens and the integration of the local food supply chain into school meals. Although it is tempting to incorporate such effective strategies into the Japanese case, more research is needed on such agri-food infrastructures in relation to school environments, since Japan is currently more dominated by a central kitchen-style school meal system that often makes it difficult to use local food from farmers or even a school’s own garden.

4.4.2. Central Organizations

The central organizations were analyzed with a focus on the four critical factors for large-scale community-based projects proposed in the EPODE approach. The results of this analysis are summarized in Table 11 below.

| Organization             | Political Commitment                                                                 | Resource                                                                 | Support Services                          | Evidence                                    |
|--------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| LSG office in France     | Formal commitment from the Ministry of Agriculture                                  | Financial support from inter-professional organizations and private food companies | Press relations                           | Nothing particular                          |
|                          |                                                                                      |                                                                          | Partnership management                      |                                              |
| ANEGJ                    | Formal commitment from the Ministry of Agriculture                                  | Competitive financial funds from the Il de France Region                  | Press relations                           | Several studies on educational impacts      |
|                          |                                                                                      |                                                                          | Information platform                       |                                              |
| Slow Food International  | Formal commitment from ministries (agriculture and foreign affairs) and the European Union; partnership with local authorities | Financial support from ministries and local authorities (via the organization’s foundation) | Press relations                           | Nothing particular                          |
|                          |                                                                                      |                                                                          | Information platform                       |                                              |
| LSG office in Japan      | Formal commitment from ministries (agriculture, education, and health)              | Financial support from private food companies                            | Press relations                           | A few studies on educational impacts        |
|                          |                                                                                      |                                                                          | Partnership management                      |                                              |
|                          |                                                                                      |                                                                          | Training program                           |                                              |

Source: Developed by the author following the analysis in section 2.2.3.4.2.

Note: Slow Food Japan was excluded from the analysis, since its activities did neither relate to school education nor include the training program.
partnerships with the City of Turin in Italy for the bi-annual organization of Terra Madre (one of the largest agri-food festivals in the world) and with the City of Kobe in Japan for commencing a new agri-food policy that is meant to revitalize that city’s agri-food industries and refine its food and culinary culture [46].

(2) Resource

Financial support from private food companies is one of the important resources that organizations can use to effectively address health promotion problems. As indicated by the interviews with the LSG offices in France and Japan, most of whose budgets are private funds, public-private partnerships (PPPs) contribute to the sustainability of their projects but should be made without diminishing the projects’ educational integrity. To prevent the consequential decline of such integrity, the EPODE approach recommends confirming in advance that private funders will not intervene with a project’s educational contents; however, doing so may decrease the private sector’s motivation to offer support. The literature also expresses both negative and positive considerations regarding PPPs and offers suggestions such as “facilitating outreach” and “developing safeguards” principles [47]. Further research should be carried out to explore the development of PPPs, given the increasing popularity of corporate social responsibility activities among private food companies.

The second driving force for a more sustainable promotion is financial support from professional and inter-professional organizations, although different levels of commitment appear in the three countries. The research found that “La Semaine du Goût,” an annual French national event during which more than 4,000 taste education classes take place, has been supported for over 20 years by several professional and inter-professional organizations, such as l’association nationale interprofessionnelle du bétail et des viandes (INTERBEV; national inter-professional association of cattle and meat). Moreover, although not directly related to the projects that were analyzed in this research, Italian national food education projects such as “Scuola e Cibo” (Schools and Food), which include taste education, were also supported by several inter-professional organizations, such as Federazione Italiana dell’Industria Alimentare (Feralimentaire; Italian Federation of Food Industries) and Confederazione Produttori Agricoli (COPAGRI; Agricultural Product Confederation). Although the differences between the agri-food systems of the three countries must be acknowledged, this high commitment level of such “intermediary” organizations, including professional and inter-professional organizations, provides useful insights for better institutionalizing Japan’s contemporary food education.

(3) Support Services

The research identified several effective support service roles that central organizations use to facilitate their projects in a community. The first role is to construct an effective information platform. For instance, ANEGJ and SF International regularly hold symposia and dialogues that enable leaders of regional organizations to exchange their expertise and empower each other.

The second role is to develop and manage taste education training programs for potential educators. For example, ANEGJ expanded its project coverage to 20 regions by appointing those who had completed its training program as local project manager to serve new communities. Details of the training programs are analyzed below.
(4) Evidence

Among the central organizations in question, ANEGJ has accumulated a growing body of studies on its educational impacts, since it is composed of regional organizations that were previously involved in a nationwide taste education project called EduSens \[48, 49\]. The other organizations have only managed to track data on project size (e.g., the number of participants and the percentage of citizens who recognize their projects). However, the interview research revealed that all of the central organizations in this study are strongly motivated to be involved in academic research on the educational impacts on children but fail to do so due to insufficient financial funds and expertise.

Ironically, even ANEGJ, SF International, and the LSG offices in Japan and France are not being updated with local project managers’ recent activities within the community. To address this challenge, the first step might be to establish basic monitoring and evaluation systems. Concretely put, effective strategies would be to enhance central organizations’ CCT function to collaborate with and collect data from schools and health agencies in the community; to activate its information platform and conduct interviews with local project managers; and to consult with academic institutions, particularly in planning stages. As recommended by the EPODE approach, central organizations have to reconsider the values of evidence, which serve as tangible results that can incentivize politicians (who frequently expect short-term communications and highlight any success they have in their own communities) to commit to projects.

4.4.3. Training Programs

It is particularly noteworthy that some of the programs (namely ANEGJ, Eveil'O'Goût, and Food Consciousness Institute) aim to train participants as animators who can stimulate people to think critically and identify both problems and new solutions as well as facilitators who can provide a process through which a group can discuss its own issues in the most productive possible way. This focus on developing leadership to enhance community capacity is consistent with recent discussions related to community organizing and community building \[14\]. This point should be re-evaluated by school dietitians in Japan, where one

### Table 12 Details of Training Programs Provided by Promoter Organizations

| Organization                        | Research Method | Target (fee) | Duration | Program Contents                                                                 | Follow-up Support                                      |
|-------------------------------------|-----------------|--------------|----------|----------------------------------------------------------------------------------|--------------------------------------------------------|
| Eveil'O'Goût                        | Course-taking   | Mainly teachers (charge) | 2 days   | Day 1: Lectures on the five senses and tasting practice. Day 2: Observation of classes in local schools/activity centers or role-playing with other participants. | Obligatory to implement the classes and report to the program organizer. |
| MIKU                                | Course-taking   | Adults (charge) | 2 days   | Day 1: Lectures on the five senses and tasting practice. Day 2: Farm or wholesale market visit, interviews with producers or intermediate wholesalers. | Issuance of a private certificate.                     |
| Food Consciousness Institute        | Course-taking   | Adults (charge) | 2 days   | Days 1 and 2: Lectures on the five senses, tasting practice, and facilitation development. | Issuance of a private certificate.                     |
| Italian Taste Education Center      | Literature      | Mainly teachers (free) | 2 days   | Days 1 and 2: Lectures on the five senses and tasting practice. | Obligatory to plan classes and report to the program organizer. |
| ANEGJ                               | Literature      | Adults (charge) | 2 days   | Three different courses (over 2 days): (1) a basic course about the taste mechanism and taste education methods; (2) an advanced course on facilitation in classes; and (3) a special course on taste education for children aged 0-6. | Issuance of a private certificate.                     |
| LSG office in Japan                 | Literature      | Mainly chefs (free) | Half-day | Explanation of guidelines and textbooks related to taste education.              | Providing the trainees with educational opportunities in "La Semaine du Goût." |

Source: Developed by the author following the analysis in section 2.2.4.2.
challenge in food education promotion is the collaboration between teachers and the school dietitians (who are newly assigned under the food education policy [50]).

Another characteristic of the training programs is the follow-up support offered by promoter organizations: Eveil'O'Goût and Italian Taste Education Center help participants to plan and implement taste education classes in their own work places; they also provide feedback and technical advice and even facilitate fund-raising. In contrast, Japanese programs only issue private certificates and circulate the practice-related information after the training.

5. Conclusion: Suggestions for Japan's Food Education

Health promotion theories were employed for this study and systems for promoting taste education, which is common to Japan, France, and Italy, were analyzed. Based on the findings gained in relation to the four research questions, possible solutions for the better institutionalization of Japan's Shokuiku initiative are outlined below.

In terms of the first research question (which concerns pedagogy), seven different pedagogies were identified, and they were also systematically classified based on the educational objectives. The first group of pedagogies is aimed at developing children's capabilities and well-being. The second group applies hedonicity-oriented approaches (mainly designed to enable children to discover the sensory pleasure of eating). These pedagogies were also classified into the two categories: the first category is targeted at children, while the second is focused on adults, which is evident in the training programs.

This classification was made possible by approaching them as "institutions", which were proposed in health promotion theories, being liberated from the previous studies that were focused solely on intra- or inter-personal dimensions (such as educational impacts). However, in this study their educational content (that represent the "rules and systems" of institutions) was not closely explored. This should be discussed in future studies. Nevertheless, given the conceptual ambiguity of Shokuiku [51] and the consequential pedagogical confusion in Japan, this classifying process would be beneficial for helping food education actors to accentuate their pedagogical diversity and, at the same time, standardize the necessary educational content in order to effectively institutionalize Shokuiku promotion.

Responding to the second question (which relates to school education systems), the political and institutional background for the implementation of food education (a part of which is taste education) was elucidated. In Japan its implementation in school education is stipulated in the Food Education Basic Law and the subsequently amended Curriculum Guidelines, whereas France has a more overarching political and institutional framework for its implementation in schools, composed of PNNS, PNA, the Vincent Peillon Law, and LAAF, whereas Italy has only the Food Education Guidelines for its promotion in schools. It was thus highlighted that the three countries had differing levels of legal and institutional educational frameworks, meaning that its implementation in schools were legally prescribed for Japan and France, while it was strongly (but not legally) encouraged for Italy.

Subsequently, the actual practices in schools were also analyzed based on the available literature, which indicated that its "interdisciplinary" (or trans-disciplinary) implementation was highly recommended, although it currently manifests at different levels.
of such trans-disciplinarity in each country. In Japan, the variety of disciplines dedicated to taste (and food) education is relatively limited (most dominantly in home economics and integrated studies), while in France a more interdisciplinary manner of implementation is observed (e.g., French, discovery of the world, science, and social studies).

The application of health promotion theories led to the articulation of legal and institutional frameworks of taste (and food) education that previous field reports failed to illuminate. In addition, the comparative perspective made it possible to identify both the similarities (such as that it is institutionally-supported) and differences (e.g., the level of commitment to its implementation in each school, and the range of food education-related disciplines).

This new insight enables us to escape from merely introducing European best practices into Japan, which was dominant in previous studies, and to obtain some concrete clues for a more realistic promotion of taste and food education. Although there is a prevailing understanding in Japanese schools that food education can (and should) be provided only within certain disciplines, such as home economics and integrated studies, these findings now open up possibilities for the Japanese food educators (including teachers, school dietitians and promoter organizations) to escape from such curricular restrictions, and develop and promote food education programs in a more trans-disciplinary manner. Such feasibility is expected to be explored through field research in schools in each country. Furthermore, such research is expected to include scrutiny of the “standardized” educational content related to food in Japanese and French national curricula (which this study did not address).

Regarding the third question (which concerns organizational structures), several organizational factors (such as size, activities, and professionalism) were identified. Based on the organizational functions, which is one of these factors, regional or independent organizations and central ones were classified. Furthermore, both types of organizations were also categorized in terms of their activities (i.e., within, outside, or within and outside school education), revealing that most of these organizations promoted their educational activities within school education. These findings also highlighted the potential benefits and challenges concerning organization-school relationships: technical support from the organizations that specialize in food education is helpful for schoolteachers who are already too occupied with everyday classes, while these organizations can also benefit from further educational opportunities in schools.

Nevertheless, particularly for the regional or independent organizations in each country, it was also found that they were characterized by insufficient organizational size (2-6 staff member), and that they were too exclusive in their professionalism for class implementation and training programs to organizationally develop promotional activities (e.g., public relations, matching). To address this challenge for consolidating school-organization relationships, one solution would be to establish central institutions that could provide organizational and promotional support for regional organizations.

This challenge was partly addressed by answering the fourth research question. Firstly, using the community organizing theory, some effective strategies for regional organizations were identified: The first of these was “strategically devised dialogues”, which could facilitate parents’ critical consciousness of the issue (which is most often some dietary problem of their children) and provide them with
motivations for participating in the educational activities. To exemplify this, the Italian case strategically incorporated some effective materials into its dialogues, such as the result sharing of the questionnaires on their children's dietary behaviors and skill development for the parents through taste education training workshops.

The second of these is related to the “empowerment”, not only of the individuals involved in the project, but also of the community social structures themselves. Again, the Italian case demonstrated the latter type of empowerment by constructing school gardens or improving the school meal systems.

Using the EPODE approach, effective strategies for central organizations were identified: These included the partnership development for regional organizations with community actors (e.g., local authorities); the procurement of corporate funds under the appropriate PPPs (in order not to diminish its educational integrity); securing financial support from “intermediary” organizations (such as agrifood professional and inter-professional organizations); the development of information platforms for transferring skills between regional organizations, as well as for collecting basic data on their activities; and management of training programs with follow-up services (including technical advice) for potential educators.

Another achievement to be emphasized in this study related to unmasking previously hidden actors in Japan's Shokuiku initiative. As noted above, one critical set of actors is “intermediary” organizations (including professional organizations, agricultural cooperatives) that are often considered by the Japanese public as only defending their own interests, while the Italian and French ones turned out to be highly dedicated to food education and communication to address social needs [52]. Thus, it would be highly useful to identify what incentivizes these intermediate organizations to financially or technically support food education initiatives in Italy and France and to discover whether the determinant factors for their commitment can be applied to similar intermediary organizations in Japan.

As for the methodological benefits related to the fourth research question, the employment of two health promotion theories (regional and central ones) could produce more specific strategies according to the needs of organizations at two different scales: The former of these was aimed at better organization of community members, whereas the latter was focused on better mobilization of the regional organizations. These strategies, when specifically tailored for promoter organizations, will be valuable in the promotion of food education, because the existing food education-related guidelines published elsewhere (such as that of Japan's Food Education Promotion Council [53]) failed to provide them with concrete strategies.

Finally, although being applauded as one of the most institutionalized food pedagogies in Japan, the “taste education” sphere was characterized by the presence of several pedagogies and promoter organizations. Furthermore, these pedagogies/organizations are competing with each other and are becoming too segmentalized and atomized, which leads to divergence in promotion. However, what is needed more than 10 years after the Shokuiku's inception is convergence, which includes the standardization of educational content common to these competing pedagogies, the development of platforms that facilitate dialogue among these promoters, and the establishment of some federations or associations of the existing promoter organizations to effectively facilitate such discussions. Each of
these converging measures, as well as this study’s analytical framework for a multiple-level promotion system, would contribute to the better institutionalization of systems for promoting other types of food education models.

Notes

(1) Among these three countries, only France has proposed clear definitions of “food education” and “taste (or sensory) education.” The former is defined as “a set of educative processes based on the knowledge of food (origin, production….) which enables the transmission of the implicit and explicit food know-how of social groups to which the individual belongs.” The latter is defined as “a set of educative processes based on the discovery of sensorial perceptions procured by the foodstuffs, which aims at their learning beyond a dichotomous and normative answer of good/bad” [54]. However, among educators in the field, these definitions are not perceived as distinct from each other; taste education is rather regarded as “a type of food education,” which is similar to the situation in Japan and Italy. For the two latter countries, there are no such clear definitions of food education or taste education as those in France.

(2) A basic law (kibon-ho) is a legal system unique to Japan. According to Shiono [55], it has the following main five characteristics: 1) it is “enlightening” but it does not stipulate citizens’ concrete rights or duties; 2) it provides policy ideas and goals but further plans will be articulated in subsequent regular laws; 3) it imposes related policy development on its government; 4) it is enacted in inter-ministerial ways; and 5) it provides few legal rules (often without stipulating rights, duties, and sanctions). In basic laws, “responsibility” for those concerned is stipulated, but again it is merely “instructive” and not legally normative. However, the provision of this responsibility has been contested, because it results in acknowledging some level of duty of undertaking or refraining certain actions, although it is not imperative.

(3) In France, the principle of “pedagogical liberty” was enacted in the Fillon Law (2005) [56], according to which the teacher can freely choose his or her own pedagogy as long as he or she respects the educational program outlined in the national education policy.

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