

Variations in Staff Viewpoints regarding Children's Outdoor Play in Japanese ECEC Playgrounds

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Abstract

This study aimed to reveal variations in Japanese early childhood education and care (ECEC) centers' practices and thoughts regarding outdoor play and relationship between the two. A questionnaire was distributed and the answers from 1,659 centers were analyzed. First, it was revealed that the frequency and perceived importance of practice in outdoor environments are different between centers. Some outdoor practices are thought to be important in many centers while others are not. Second, a confirmatory factor analysis showed that centers varied in their practices and the perceived importance of direct or indirect guidance for children in outdoor play although indirect guidance was rated highly in many centers. This means that the varied thinking about outdoor play in Japanese centers can be seen in how they teach physical activities or make use of playgrounds. Third, it was revealed that thoughts about fostering children's build strength and acquire athletic skills vary between centers and centers focusing on such things had high scores in direct guidance while centers focusing on children's wonder or interests had low ones. In conclusion, we can consider ECEC's outdoor play practices and perception together and what centers value is important in discussing the quality of outdoor environments for children's development.

Keywords: value, playgrounds in Japanese ECEC centers, staffs, questionnaire

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Introduction

Because of the lifestyle changes and inactivity that result in health problems such as obesity, interest in the outdoor play of early childhood has increased in recent years (Archer & Siraj, 2015; Benjamin-Neelon & Evans, 2011; Campbell, 2013; Cosco, Moore, & Smith, 2014). The body is man's first and most natural instrument (Mauss, 1973) and early childhood education and care (ECEC) is a place to acquire athletic skills through physical development. Preschools are dynamic physical environments where children engage in a range of complex social interactions. In these spaces, each child learns not only techniques for controlling his or her own body but also intercorporeal techniques for interacting with classmates in socially structured ways (Hayashi & Tobin, 2015). In some countries, there are kindergartens that are organized as outdoor schools, where the children, ages three to six, spend all or most of the day outdoors in a natural environment (Fjørtoft, 2001). In Japan, there is also significant interest in an outdoor environment for young children (Akita, Tsujitani, Ishida, Miyata, & Miyamoto, 2018; Kawanabe, 2006; Mori et al., 2011; Sato, 2014; Shoda & Yamada, 2015) related to recent changes in Japanese society, family, and lifestyles (Kitano, 2017). Therefore, Japanese ECEC practitioners are systematically trying to introduce physical activity on a daily basis. Although the problem of obesity is not as serious in Japan as it is in other countries (Organization of Economic Cooperation Development, 2016), from the perspective of children's wellbeing, there is a growing need to address their interactions with the outdoor environment. There are not enough outdoor environments such as parks where children can play comfortably due to the problems of environmental sanitation like uncollected garbage or the droppings of cats and birds (Koizumi et al., 2003; Sadayuki & Koike, 2006) and not all parks are suitable for children's developmental needs (Tsujitani, Ishida, & Miyata, 2017) because of artificial equipment that prevents children from playing freely and several prohibitions (Moriga, 2002). At the same time, due to the growing needs of early childhood education and the concern for supporting working parents, the number of childcare centers is also growing and they are often unable to obtain enough space for outdoor play, especially those located in cities.

Research Background

In Japan, there are mainly three types of centers: kindergartens where children between the ages of 3 and 6 stay for about five hours each day; nursery centers where 0- to 6-year-olds whose parents cannot stay home with them during the daytime stay for more than eight hours each day; and integrated ECEC centers where both types of children stay. The guidelines that govern each type of center are similar, especially, in terms of what the care and education aims are for the children. There are five areas that show the aspects of care and education: environment, health, language, expression, and relationships. All of these areas are important, but the approaches to them differ among centers. Regarding the environment, Japanese ECEC guidelines show three points as the aim of environmental education: (1) children have an interest in various natural phenomena, a familiar relationship with their own environment, and are in contact with nature; (2) children have a familiar relationship with the environment and can explore it independently, enjoy themselves, make discoveries, and try to adopt what they learn into their daily lives; and (3) children enrich their sense of the nature of things, numbers, and literacy by watching, thinking about, and dealing with familiar phenomena (Cabinet Office, Government of Japan, Japanese Ministry of Education & Japanese Ministry of Health, Labour and Welfare, 2018). In addition, Japanese ECEC centers all follow the pedagogy of *mimamoru* or watching over and waiting. This practice includes giving children opportunities to develop their emotional, social, and intellectual skills (Hayashi & Tobin, 2015). Further, the architecture of the buildings and grounds of many Japanese pre-schools architecture supports the *mimamoru* pedagogical approach.

Despite this philosophy, Japanese ECEC centers often lack physical space and a suitable environment, especially in cities (Senda, 2016). In examining the playgrounds and outdoor environments of 1,740 centers in Japan, a study by Tsujitani and Miyata (2017) found that the situations of the outdoor environments in Japan vary greatly. The playgrounds in some centers, especially those in the suburbs, have expansive areas; others do not have enough outdoor space to let the children run around much. Still others, particularly in cities, have no outdoor space of their own at all.

In addition to the physical environment, the features of Japanese ECECs' educational practices vary, depending on what the centers value. As Hayashi and Tobin (2015) mention,

Japanese preschools place a great emphasis on the value and importance of learning through peer relationships. Japanese preschools are sites for teaching young children to have a characteristically Japanese sense of self, that is to say, a sense of self that is socially minded. These values are shared in both inside and outside environments. In Japan, there are standards for ECEC centers' environments (Cabinet Office, Government of Japan, 2014) that prescribe the minimum area (i.e. square footage) of each center, the number of staff members, and other elements to be provided for early childhood education. Concerning the outdoor environment, the *Kindergarten Standards for Equipment in Facilities* (Japanese Ministry of Education, 2018) recommend that kindergartens provide various environments for children. However, in these guidelines, no direction is given regarding the pedagogical strategies teachers should use to reach the curricular goals (Hayashi & Tobin, 2015). As a result, there are many types of care and education provided in Japan although they share some values and ideas as mentioned above.

In Japan, there are several words that express approaches to early childhood education such as *issei-hoiku* which means a teacher guides the children to do almost all the same things at the same time and *jiyuu-hoiku* which means children decide individually what to do and the teacher only works to draw the children's interest by creating environments for them. The use of these methods differs among centers and some studies have compared them (Kobayashi, 2016). Kobayashi has mentioned that the relationship between the environment and forms of education has been shown in some studies and environments of people/physics/time are important for realizing care and education for individuals' needs. Further, there are no standards for deciding on the quality of educational practices in outdoor environments and the ways of implementing these practices vary among centers. As Walsh (2002) mentioned, Japanese culture has strong emphasis on physical education at all levels of schooling. However, the way of physical education varies among centers. For example, in Japan, some centers have programs that teach children physical exercises and these are often carried out by sports experts while other schools do not have such programs (Yoshida, 2017). With the same reason, the definition of "play" varies among ECEC centers in Japan and there are also differences between staffs and children's definition of "play" (Miyamoto, Akita, Tsujitani, & Miyata, 2017).

In a study that measured children's physical skills, it is said that the children enrolled in

ECEC centers that let them experience free-play acquire greater physical skills than those who attend centers that have programs that teach all children the same activities (Mori et al., 2011). One reason for this may be because children engaged in the same activities must, from time to time, wait their turn during the exercises and that time is spent without active movement (Yoshida, 2017). Many centers' staff aims to develop children's physical skills, but their practices do not necessarily lead to results that meet these aims. For this reason, it is important to consider the qualitative differences among centers in terms of children's experiences with outdoor play and activities.

There are also differences of practices in outdoor environment connected to rules. There are rules about how the children use and play in the playgrounds; in some centers, the children can go outdoors freely on rainy days or in the wet after a rain while other centers prohibit them from going outside on rainy days (Tsujitani, Ishida, & Miyata, 2017). Play and activities that involve risks or hazards are difficult problems for the staffs; in some centers, children decide what to do by themselves while, in others, the staffs tell the children what they should or should not do. In educational practice, such things may have a relationship with what each center or staff values regarding the activities on the playgrounds. It is also pointed out that there are differences between teachers' 'pedagogical positioning' in children's imaginary play (Fleer, 2015). These practice differences may have a relationship with what the center or the staffs value and relate to the methods of practice that each center uses for physical development. Therefore, it is important to clarify the relationship between the activities in which the children engage and what the center values. In this study, we aim to examine what Japanese centers do and do not do in practice, what they think is important in their practice, and what they focus on in the children's experience and development. The aim of this study is to reveal the relation of the practice and what the ECEC staffs value, in Japan, regarding outdoor play.

In this study, "outdoor" includes two types of place. One is the playgrounds of the Japanese ECEC centers and another is the environment near the centers such as parks, paths, and fields, which the staffs use for the children's play and activities. Although there are various definitions of "play," from wide to limited (e.g. Piaget, 1962; van Oers, 2013; Vygotsky, 1930/1978), in our study, "outdoor play" includes all of the activities that the children from age 0 to 6 are engaged in during their stay in the centers. The reason that we

define “play” so widely is that, for children, “play” includes a number of different things – such as caring for plants and animals, taking rest under trees, and observing other children between their active playtimes – that adults do not generally define as “play” (Tsujitani, Akita, Miyata, Sugimoto, & Miyamoto, 2016). The benefits of outdoor play are not exclusively physical development, but also include many other things such as wellbeing supported by interacting with nature, growing curiosity, and scientific concepts from wondering or finding something new. Fjørtoft (2001) found indications of a strong relation between fostering versatile play in the natural environment and the impact on motor development in children. Therefore, we regard the “outdoors” to refer to each center’s own playgrounds and outside spaces that are used for and by the children.

Research Aims

Although numerous practitioners and researchers agree that outdoor experiences are important for children, the focus of these various experiences varies between individuals and organizations such as the ECEC centers. Therefore, revealing these differences in focusing the development or experiences of children in outdoor play can provide good recommendations for us to use in exchanging thoughts regarding children’s outdoor experiences and discussing the quality of outdoor environments and practices.

There are gaps between the staff members’ practices and thoughts. With this in mind, we settled two aims in creating items of question. One shows the disposition of centers’ approaches to education like *issei* (everyone doing the same things, adult-led) or *jiyuu* (a mainly child-centered approach). The other is dividing thoughts and practical situations that have an effect on each center’s environment. We designed questions to rate both the frequency and importance of the curriculum contents so as to learn about centers’ practices and their ideals. In addition, we aimed to find ways to visualize different ideas about forms of care and education so that staff members and researchers can reflect on their practices relating to their own thoughts. Then, we made some suggestions of such measures through a factor analysis. In addition, by referring to the guidelines that focus on children’s experiences that lead not only to physical development but also emotional growth, numeracy/literacy, findings/interests, and independence, we tried to ensure that respondents

could rate the level of importance of these items so as to determine their typical means of approaching these notions. The aims of this study are to reveal the tendencies of practice and thoughts about forms of care and education in outdoor ECEC environments, identifying what staff members typically focus on in the contents of children's education and providing points of discussion about the relationships between thoughts and practices in Japanese ECEC outdoor environments.

Methodology

This study used a quantitative methodology based on a questionnaire to gather data from ECEC centers in Japan. In Japan, there are mainly three types of centers: kindergartens, nursery centers, and integrated ECEC centers. In the integrated centers, some children stay for a short time like a kindergarten while others stay for a longer time like a nursery center. Integrated centers are new types of care centers first authorized in 2006 and whose numbers are growing rapidly. In 2016, there were more than 4,000 of them in operation. The guidelines for integrated centers were established with regulations about each center's own outdoor environment, called the *Entei*, in which "en" means an ECEC center and "tei" means garden. We have collected data mainly from integrated ECEC centers and we sent the questionnaire to kindergartens and nurseries in five wards in Tokyo so as to learn the situations of outdoor environments in these different settings.

Questionnaires were sent to 3,495 Japanese ECEC centers, including kindergartens and nurseries in Tokyo, in November 2016. As mentioned above, the number of integrated centers is growing rapidly and it is difficult to gather information about them, so the centers to which we sent questionnaires did not include all of the integrated centers. A total of 1,740 centers (49.8%) replied. Those with their own playgrounds numbered 1,659 and their data were analyzed in this study. All answers were provided voluntarily and the names of the centers were made anonymous for both the analysis and in the presentation of the following results.

The questionnaire included three parts and spanned 16 pages (see Table 1). In this study, we focused on three areas: (1) we examined the frequency of each of the nine content areas that the centers include in their educational practice; answers were provided via a

Table 1. *Contents of the Questionnaire*

Parts	Pages	Contents of Each Part
Profile	1, 16	Basic information about a center: number of children, area of the playground, position of answerer, etc.
Part 1	2-7	Questions about what the center have or do not have in the playground: sandpit, tap, tree, plant, miniature hill, slope, biotope, open space, playground equipment, etc.
Part 2	8-10	Questions about children and playground: children's experience at each place, rules about playground and members evolve in playground
Part 3	11-15	<p>Questions about staffs and playground:</p> <ol style="list-style-type: none"> 1) How often staffs do each content as educational practice and what degree they focus on each content in practice: nine items, five-point scale 2) What staffs think important as children's experience and development in playground: order method to rank five items 3) Questions about how the staffs share information about each center's playground 4) Free description about ideas that each center has to make use of playgrounds

Likert-type scale with 1 indicating “rarely do” and 5 meaning “frequently do,” all based on the center’s practical situation; (2) we considered the degree of importance that each center rated each content area of practice. Possible replies ranged from 1, “not important at all,” to 5, “very important,” based on their thoughts; (3) respondents were asked to rank five content areas and indicate how important they consider them in regard to children’s experiences and development.

The nine content areas of (1) and (2) are shown in Table 2. In (1) and (2), we address the data that included both teacher-led activities and children-centered activities. In this study, six content areas refer to staff members’ actions that lead and teach children actively. The remaining three areas are made up of staff actions that maintain children’s sense of free play, an approach near to the principles of *mimamoru* (Hayashi & Tobin, 2015). We needed to avoid desirable response because the latter areas are near to thoughts shared in Japanese ECEC and we predicted that many staff members rate high in items like latter ones, so we choose words that do not show teacher-led or not clearly and the latter items are fewer than the former ones.

In (3) above, we structured the questions to elicit a ranking from first to fifth so that respondents could choose what content they believe is most important. Referring to the

Table 2. *Averages and Standard Deviations of Items in the Question 1)*

	Frequency		Degree of Importance	
	Av.	SD	Av.	SD
Guide children in activities that need high level of skills	2.76	0.98	3.41	0.95
Invite children to play activities that the staffs started	3.52	0.91	3.80	0.82
Use outdoor environments to teach physical activities and to hold events	3.67	1.06	4.07	0.78
Decide and make environments where children play	3.54	0.94	3.76	0.83
Hold activities that can improve the children's physical skills	3.55	1.05	3.99	0.87
Conduct activities directing children what to do	3.01	0.99	3.51	0.96
Go around to see how the children are playing	4.58	0.68	4.72	0.53
Make opportunities in which children interact with each other	4.37	0.77	4.71	0.50
Plan activities connected to nature	3.66	0.97	4.50	0.59

Japanese guidelines that show the importance of children's physical and emotional development and familiar experience with nature and finding something and literacy or numeracy, we created five possible answers: (1) "trying and making expressions regarding what children wonder about or are interested in," (2) "feeling the beauty and wonder of nature," (3) "build strength and acquire athletic skills," (4) "developing skills to predict and deal with danger," and (5) "having a scientific viewpoint and being conscious of literacy."

We used the following methods in our analysis. First, based on the statistical results (see Table 2), we discussed "(1) Frequency" and "(2) Degree of importance." Second, we carried out a confirmative factor analysis from the results of (1) and (2) and then, from the results, we made two indicators from "Frequency" and "Degree of importance." Third, we separated the centers by the answer of "(3) What do you think is important regarding the children's experience and development," and compared the numbers of the indicators that we made in the second procedure.

Table 3. Results of Factor Analysis in “Frequency”

	I	II
Factor I : Frequency-Direct ($\alpha = .78$)		
Guide children in activities that need high level of skills	.43	.23
Invite children to play activities that the staffs started	.45	.22
Use outdoor environments to teach physical activities and to hold events	.35	.32
Decide and make environments where children play	.62	-.02
Hold activities that can improve the children’s physical skills	.60	.13
Conduct activities directing children what to do	.91	-.28
Factor II : Frequency-Indirect ($\alpha = .54$)		
Go around to see how children are playing	-.04	.48
Make opportunities in which children interact with each other	-.03	.66
Plan activities connected to nature	.04	.49
Correlations between Two Factors		
Factor I	1.000	
Factor II	.421	1.000

Results

The Frequency and Degrees of the Importance of the Contents in Practice

The statistical results regarding “(1) Frequency”, which means “how often do you practice,” and “(2) Degree of importance”, which means “how important do you think this is,” were as shown in Table 3. Both are shown as having two contents- “go around to see how the children are playing” and “provide opportunities for the children to interact with each other”-have an average of more than 4.0, which is higher than the other content areas. In comparison, two content areas scored an average of more than 4.0 only in degree of importance and not in frequency: “plan activities connected to nature” and “use outdoor environments to teach physical activities and to hold events.” In addition, in all of the content areas, the averages were higher in “Degree of importance” than in “Frequency” and the *SDs* were opposite. This indicates that, in practice, the frequency of each content area varied between the centers while “Degree of importance” was similar among them.

Table 4. Results of Factor Analysis in “What Degree Do You Think Important”

	I	II
Factor I : Frequency-Direct ($\alpha=.85$)		
Guide children in activities that need high level of skills	.62	.07
Invite children to play activities that the staffs started	.67	.02
Use outdoor environments to teach physical activities and to hold events	.70	.12
Decide and make environments where children play	.70	-.07
Hold activities that can improve the children’s physical skills	.69	-.04
Conduct activities directing children what to do	.80	-.23
Factor II : Frequency-Indirect ($\alpha= .53$)		
Go around to see how children are playing	.36	.21
Make opportunities in which children interact with each other	.25	.57
Plan activities connected to nature	.36	.51
Correlations between Two Factors		
Factor I	1.000	
Factor II	.433	1.000

Direct and Indirect Involvement

The results of the confirmative factor analysis in “Frequency” and “Degree of importance” are shown in Table 4. Two factors were extracted in each analysis. The items in the first factor were about the staffs being involved directly in the children’s play and activities. In the content areas, “Guide children in activities that need high level of skills,” “Use outdoor environments to teach physical activities and to hold events,” and “Hold activities that can improve the children’s physical skills,” the staffs’ purpose is to improve the children’s physical skills directly by particular activities. In the content areas, “Invite children to play activities that the staffs started,” “Decide and make environments where children play,” and “Conduct activities directing children what to do,” the staffs lead the play and the activities. In comparison, in the content areas, “Go around to see how the children are playing,” “Make opportunities in which children interact with each other,” and “Plan activities connected to nature,” the staffs do not attempt to improve the children’s physical skills directly by any particular play or activity. The children decide what to do and the staffs support the environments in which the children improve their skills by interacting with friends and nature. Therefore, two factors were named: “Direct

involvement” and “Indirect involvement.” Since there are two questions of “How often do you practice” and “How important do you think this is,” the factor names are “Frequency-direct,” “Frequency-indirect,” “Important-direct,” and “Important-indirect.”

From the content of each factor, it is possible that the centers that have a higher score in “Important-direct” focus on physical activities in which the staffs teach physical skills directly to the children. Conversely, it is possible that the centers that have a lower score in “Important-direct” focus on other things rather than teaching sports or activities that need high level of skills. In the next paragraph, these points are confirmed by analyzing the relation between these two factors and ranking of the five contents of the children’s experience and development.

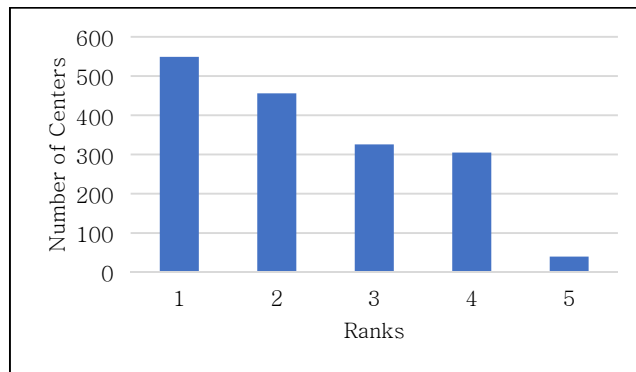


Figure 1. Number of Centers in Each Rank of “Trying and making expressions regarding what children wonder about or are interested in”

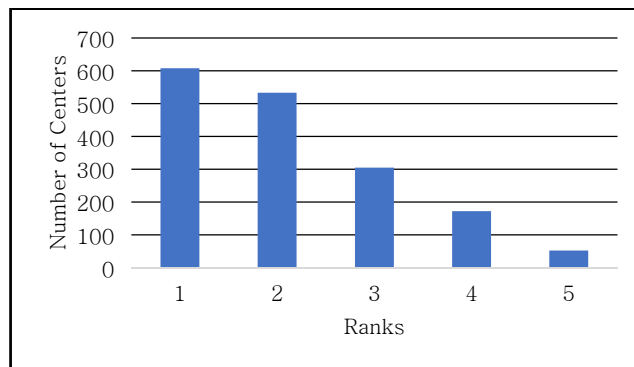


Figure 2. Number of Centers in Each Rank of “Feeling the beauty and wonder of nature”

Variations in Staff Viewpoints regarding Children's Outdoor Play in Japanese ECEC Playgrounds

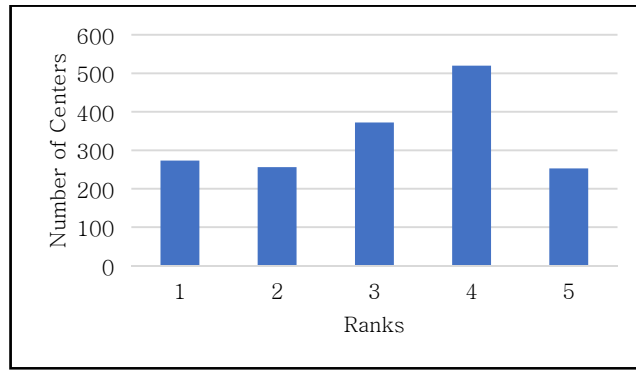


Figure 3. Number of Centers in Each Rank of “Building strength and acquire athletic skills”

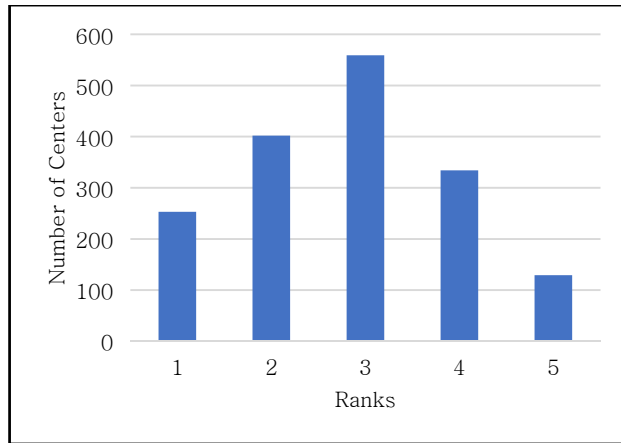


Figure 4. Number of Centers in Each Rank of “Developing skills to predict and deal with danger”

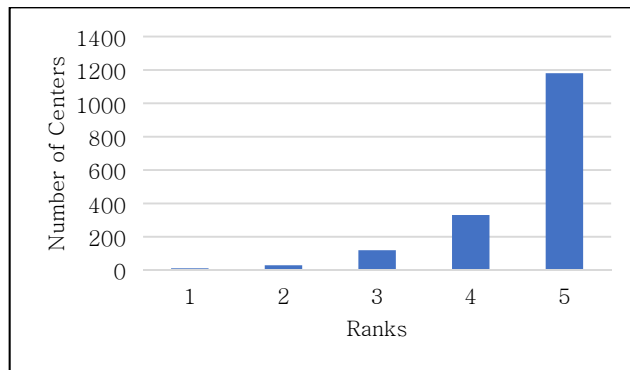


Figure 5. Number of Centers in Each Rank of “Having a scientific viewpoint and being conscious of literacy”

“The experience and development on which each center focuses” and “The direct involvement”

The numbers of the centers that apply to each rank of the content are shown from Figure 1 to 5. These numbers show that many centers rank high in “Trying and making expressions regarding what children wonder about or are interested in” (see Figure 1) and “Feeling the beauty and wonder of nature” (see Figure 2). However, the numbers of the centers in “Building strength and acquire athletic skills” and in “Developing skills to predict and deal with danger” are similar between the five ranks (see Figure 3 and Figure 4); specifically, the judgements are different between the centers. In addition, not many of the centers ranked high in “Having a scientific viewpoint and being conscious of literacy” (see Figure 5). These results demonstrate that, when compared to the other content, the degree of focus on growing the children’s strength and athletic skills varied between the centers.

Table 5. Numbers(N) and Averages(Av.) of “Frequency-direct” (F) and “Important-direct” (I) of Each Group and the Results of T-Test

		Centers Rated First		Centers Rated Other Order		Results of <i>t</i> -test
		N	Av.	N	Av.	
“Trying and making expressions regarding what children wonder about or are interested in”	F	495	19.55	995	20.25	$t(1488) = 3.118^{**}$
	I	509	21.69	1027	22.94	$t(1534) = 5.938^{***}$
“Feeling the beauty and wonder of nature”	F	526	19.83	962	20.12	n. s.
	I	546	22.27	989	22.66	n. s.
“Building strength and acquire athletic skills”	F	241	21.21	1248	19.79	$t(1487) = 4.986^{***}$
	I	253	24.23	1282	22.19	$t(433.618) = 9.076^{***}$
“Developing skills to predict and deal with danger”	F	232	20.34	1258	19.96	n. s.
	I	234	23.29	1304	22.39	$t(1536) = 3.272^{**}$
“Having a scientific viewpoint and being conscious of literacy”	F	9	20.33	1480	20.02	n. s.
	I	10	21.60	1524	22.53	n. s.

The average and the *SD* of the “important-direct” scores among centers that rated first in each content and that rated other order are shown in Table 5. Regarding the results of the *t*-tests, centers that rated first in “Children can try and make expressions about what they wonder about or are interested in” (N=495) had significantly lower scores for “frequency-direct” ($t(1488)=3.118, p < .01, d=.16$) and “important-direct” ($t(1534)=5.938, p < .001, d=.32$). In comparison, centers that rated first in “Children build strength and acquire athletic skills” (N=241) had a significantly higher score for “frequency-direct” ($t(1487)=4.986, p < .001, d=.36$) and “important-direct” ($t(433.618)=9.076, p < .001, d=.57$). In other content areas, “Children can feel the beauty and wonder of nature,” “Children can develop skills to predict and deal with danger,” and “Children can have a scientific viewpoint and be conscious about literacy,” there were no significant differences in the four types of scores among the centers rated first and other centers.

The results indicate that the centers focusing on the children’s experience of trying or expressing wonder and interest rate low in the content areas of practice in which staffs teach children physical skills directly and lead physical activities. In comparison, the centers focusing on the children’s development of strength and acquire athletic skills rate high on such content. Although it cannot be said that the former centers are neglecting the children’s physical development, it can be said that they are attempting to give the children the experience of play and activities from their own interests or feelings.

General Discussion

The Practice and Thoughts in Japanese ECFC Centers

Our study showed that most ECEC centers commonly focus on watching how children play and providing opportunities for them to interact with others. They believe that these practices should be a part of the daily routine in a center. This means that the Japanese centers that participated in this survey have similar values, in part, regarding observing and supporting children’s outdoor play and activities. These values correspond to the features of Japanese ECEC like *mimamoru*, which Hayashi and Tobin (2015) mentioned. Also, these values have something to do with the features of Japanese ECEC staffs’ engagement in

children's activity, in which the staffs delegate authority to children and staffs are able to make few behavioral demands on children (Lewis, 1984). It means Japanese ECEC staffs think important of just making environment for children and seeing what children do. Nonetheless, there are also content areas such as activities with nature where centers' frequency of practice differ even though the average "degree of importance" is comparatively high among all centers included in this study. This means that all Japanese centers do not have as much outdoor space as they need to interact with nature. In addition, although ECEC staffs have deep insight for children's motivation to play actively and with a sense of wonder (Kitano, 2017), there may be problems related to staff members' knowledge of and skills for making use of nature in education. As was shown in the third result above, many center leaders think it is important for children to feel the beauty and wonder of nature, but there are still problems regarding the environment that differs among the areas and regarding the methods and ideas for providing children with rich experiences that make the maximum use of their opportunities.

However, as shown in the second and third results, the content areas and/or features of practices in outdoor areas do not depend exclusively on the center's setting or natural environments; they also depend on what types of experiences or forms of development the center consider important. Regarding outdoor play, the centers that value strength and athletic skills can be said to focus on and promote activities that the staff members lead, teach, decide to do, or use to support the children directly. The centers that value children's wonder and interest have the opposite tendency. Of course, since there are so many important experiences and types of development that should be taken into consideration, it cannot be said that any center focuses on a specific development or experience and neglects the others entirely. Nonetheless, for the centers, considering their development or experience in outdoor play can serve as an indicator that reflects their own practices.

The Differences among Japanese ECFC Centers related to Environments and Thoughts

As we mentioned in the introduction and research backgrounds, playgrounds are different among Japanese ECEC centers. Some centers have large play areas, playground equipment, and some plants. Such environments are convenient for staff to hold events like a sports day or to teach children physical activities in a whole group. In other words, they

provide each child almost the same experiences as other children in the center when playing in groups or doing activities with other children. However, when the staff wants each child to have their own experience according to their individual interest or to concentrate on their own plays, large play areas are not always convenient because there are often not enough narrow spaces to hide from one's surroundings where children can enjoy playing alone or in a small group. Having a 'secret place' is said to be important for children's development (Moore, 2015) and some ECEC staff who agrees makes efforts to provide such spaces for children (Miyamoto, Akita, Sugimoto, Tsujitani, & Miyata, 2017). This means that places that are good for particular purpose of education are not always good for other purposes.

The other centers employ forests, ponds, small hills, biotopes, and slopes instead of large play areas. Such environments are good for planning activities connected to nature and provide children opportunities to experience wonder toward and interest in nature like plants, insects, water, earth, leaves, and so on. Also, such experiences provide children opportunities for many types of physical movement because the surroundings are more complicated than large play areas and demand children to move flexibly. However, when the staff's purpose is to provide all children similar experiences for physical development, these environments are sometimes difficult to make use of because the time and variation of movements depend on each child's play style and there are not enough spaces to plan activities that large numbers of children can engage in simultaneously. In addition, there can be occurrences that are difficult for staff to predict, so the possible risks are more complicated than in large play areas.

In addition, providing various experiences for each child is said to be more difficult than leading all children in the same activities (Kobayashi, 2016). How staff members in each ECEC center regard the outdoor environment as the children's place to play can provide a hint for reconsidering forms of education and children's experiences.

There are some centers that have both types of the environments mentioned above. However, in Japan, lack of spaces for ECECs is a serious problem and most centers cannot afford to provide many different types of spaces for children. Thus, it is important for each center's staff to think about what practices are the most important for children, what they value in children's experience and developments, and what values they share with the center. This study provides a perspective on the relationship between outdoor environments,

ECEC staff's thoughts, and early-childhood experiences. Japanese guidelines for ECEC centers provide general directions for the care and education of young children, but ways of implementing them and contents of practice are left to each center's staff to determine. A variety of studies have been conducted about Japanese ECEC centers' outdoor environments as mentioned in the introduction, but we need to relate them to research and studies about the values or thoughts that are shared in Japanese ECEC centers.

As we mentioned in the introduction, in Japan, there are standards for equipment in facilities which include the minimum size of rooms and outdoor spaces for particular numbers of children, the type of equipment that should be in an ECEC, and the number of staff needed for children of different ages. However, there are no detailed standards for the outdoor environment of ECECs except for the *Kindergarten Standard for Equipment in Facility* (Japanese Ministry of Education, 2018), which provides advice on various features of an ECEC's outdoor environment such as the presence of plants, water, sand, and other things. In addition, there are no standards referring to variations in what ECEC centers and staff prioritize. As our study revealed, there are variations in what each center values and there is a relationship between values and educational practices, so it is important for us not only to think of ECECs' outdoor environments themselves but also to think of the quality of these environments in the context of the purposes, wishes, and values that each center has.

Limitations of the Study and Possibilities for Future Research

In this study, we discussed the relationship between values and educational practices, but it can also be said that the outdoor environments inspire ECEC staff members' physical education practices. In other words, outdoor environments affect ECEC staff members' ways of thinking and influence what ECEC centers or staff values. More research is needed to analyze the relationship between ECEC staff members' ways of thinking about the outdoor environment, natural areas, and their communities' features. Further studies should also consider not only what content ECEC staffs value in educational practices and children's development and experiences but also what the staff values about playgrounds themselves.

Moreover, although there are tendencies of shared thoughts in ECEC practices and ways

of thinking, the connection between practices and thoughts cannot be considered to be the same across all centers. We determined this from the questionnaire in this study, but it is also beneficial to think about the quality of ECEC practices in outdoor play as doing so reveals the processes that arise from the ideas centers have regarding the content of educational practices. These seem to differ in many ways such as the natural environment, staff members' experiences, leaders' thoughts, the number of children attending the center, and so on. To reveal these relationships, studies with interviews and observations could also be beneficial. We also need to consider the features of Japanese ECEC practices in comparison with those of other countries.

This study revealed variations in what Japanese ECECs value in outdoor environments and the relationship between those values and practices. We also mentioned the variations in Japanese playgrounds that it is important for us to reflect on practices from the perspective of what we value and that it is important to take such variations into consideration when developing standards of quality in ECEC outdoor environments.

The results of this study also point toward the value of future studies on the similarities and differences in outdoor play between inter- and intranational cultures and obtain new points of view to see outdoor play in ECECs.

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