

# **Capturing and Improving the Quality of Play in Early Childhood Education and Care Settings through Photo Documentation via Wall Displays for Children**

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## **Introduction**

If we do not recognise that the quality of educational practices can be measured by rating scales or checklists based on universal norms, it will be necessary for us to use pedagogical documentation and reflection to help identify and improve it. In the context of early childhood education and care (ECEC), pedagogical documentation to describe daily educational practices is widely known as one of the essential tools for meaning-making and coming to one's own decision about what is going on in the following practices (Dahlberg, Moss and Pence, 2013). Many studies and practices have explored various forms of pedagogical documentation in ECEC (i.e. written notes, photos,

videos, and artefacts produced by children). Moreover, Practitioners have demonstrated considerably different attitudes, assessments, and modes to adopt and implement pedagogical documentation in ECEC settings (Knauf, 2015). It would seem, therefore, that further studies are needed on how to carry out documentation in ECEC practices.

### ***Pedagogical documentation: Tools for 'listening'***

One of the pedagogical documentation approaches in ECEC originated in the educational theories and practices of Reggio Emilia, a city in northern Italy. According to the Reggio Emilia approach, pedagogical documentation is the tool for 'listening' (Rinaldi, 2005). Concerning 'listening' to make the meaning in ECEC practices, we identified the following three purposes of pedagogical documentation, based on whom we are willing to listen to via documentation.

The first aim is listening to the voice of children. Rintakorpi and Reunamo (2017) suggested that pedagogical documentation is inherently connected with child-centred ECEC practices and children's participation. In the context of play in ECEC practices, child-centred views are supported and realized via the way that we seek children's views, and reflect them back to the children if we presuppose playful interactions without any need for contrivance, hijacking, or subverting children's intentions (Goouch, 2008). Pedagogical documentation through photos might be helpful for listening to the voice of children to reflect their views during play activities. It is possible to make activities more visible for young children, as well as adults, versus using text-based documentation.

The second goal is listening to the voice of parents and guardians. Rintakorpi, Lipponen and Reunamo (2014), who used pedagogical photo documentation called the 'Fan', demonstrated that documentation not only serves as a tool to record facts, but also to mediate information about children's lives at home and kindergarten. Moreover,

documentation through photos enables parents and guardians to share the information of children's experiences with other family members. This practice may enhance family conversations about children's experiences and create connections between the childcare centre, home, and the extended family (Reynolds and Duff, 2016).

The third objective is listening to practitioners. Based on an analysis of ECEC centres in Germany, Knauf (2015) indicated that not all practitioners welcome pedagogical documentation, although documentation has some importance in all of the centres investigated. This discrepancy can be attributed to practitioners' understanding and feelings about pedagogical documentation. We need to focus on the issues proposed by Carr (2011) as the guidelines for assessment in ECEC; specifically, whether the assessment processes will be possible for – and useful to – busy practitioners.

### ***Research questions***

Our overall goal is to explore the possibilities of pedagogical photo documentation in order to listen to the voices of children, parents and guardians, and practitioners through ECEC practices. This action will play a central role in capturing and improving the quality of ECEC practices through the discourse of meaning-making. Specifically, this study addresses the following three questions:

- (1) Does photo documentation facilitate and develop children's play as play for themselves – not as tools for teaching – in ECEC practices?
- (2) Does photo documentation for children enhance interactions between practitioners, parents/guardians, and other family members?
- (3) Does photo documentation for children develop, support, and encourage practitioners throughout the assessment process for children's practices and pedagogies?

## **Method**

### ***Participants***

Two Japanese kindergartens, Hill and Pine (both pseudonyms), participated in this action research. Kindergarten is one of Japanese ECEC provisions for children ages 3–6 and governed by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Kindergartens in Japan operate for 4 hours per day. The current national curriculum for kindergarten (MEXT, 2018) demonstrates that offering a safe, stimulating, and challenging environment for children’s play is a crucial aspect of a thoughtfully planned curriculum, because children’s learning processes are facilitated through play in ECEC. This educational philosophy – the value of play – is shared in the national guidelines for nursery schools (Ministry of Health, Labour and Welfare [MHLW], 2018). However, the curriculum for kindergarten, the national guidelines for nursery schools and their guidebook do not provide any instruction on how to carry out pedagogical documentation to capture, facilitate, and describe play, such as the circumstances in Sweden introduced by Pettersson (2015)

Hill kindergarten is located in a regional town, while Pine kindergarten is in the urban centre of a prefectural capital, which began to participate in the study starting in 2017. Both kindergartens are attached to the faculty of education at the national university. In Hill kindergarten, there are 8 teachers, with 78 children divided into three classes based on grade. Two of the classroom teachers were actively involved in this action research as the co-authors of this study.

At Pine kindergarten, there are 60 children divided into two classes based on grade, with 4 teachers. Two of the classroom teachers were actively involved in this action research. Each class in both kindergartens has a classroom teacher and a supporting teacher.

This research project has been carried out since 2014. Table 1 displays the classes and the number of children who participated.

Table 1. Participated classes and children

Kindergarten	Classes	Number of children in each class			
		2014-2015	2015-2016	2016-2017	2017-2018
Hill	3-4 yrs	17	18	-	18
	5-6 yrs	28	30	30	28
Pine	4-5 yrs	-	-	-	30
	5-6 yrs	-	-	-	30

Both kindergartens hold regular staff meetings with text-based pedagogical documentation for daily classroom practices and children’s activities, which colleagues usually share with each other to review and improve their practices and curricula.

***Materials and procedures***

We conducted action research with the classroom teachers. The teachers put together daily class photo documentation via wall displays addressed to the children. This documentation is named *shimbun*, which means ‘newspaper/wall newspaper’ in Japanese. In the documentation, the teachers focused on the children’s practices of free play. It generally included 3–7 photos (which they chose from about 20 photos a day that they took) on A3-size paper. They sometimes added brief comments (i.e. private speeches given by children; or illustrations) by hand (Figure 1). The teachers could choose their favourite photos of children’s play from that day, without particular constraints, because we intended to minimise the time required to compose the photo documentation. The documentation was made after practices carried out that same day or the next morning, then pinned onto the previous one to display on the wall in the classroom before students arrived in the morning. Therefore, not only could the children see the current documentation in the morning, but also prior documentation behind the current one (see Figure 2).

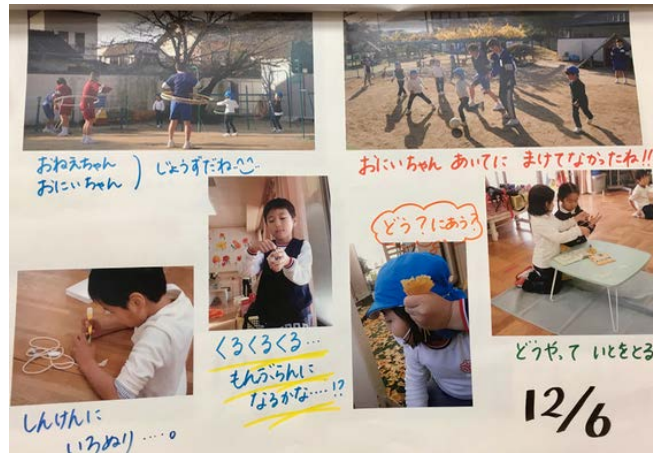


Figure 1. A sample of daily class photo documentation:  
6<sup>th</sup> Dec 2016 for a five-to-six-year-old class



Figure 2. A daily class photo documentation on the wall of the classroom:  
20<sup>th</sup> May 2017 for a three-to-four-year-old class

Regarding the case study, the classroom teachers gathered narrative observational episodes accounting on the documentation’s influence on children’s play activities and their interactions. All authors, including practitioners in kindergarten, researchers, and teacher trainers, regularly participated the meeting to interpret the episodes and discuss the experiences of how the documentation inspired the children.

Parents and guardians have had access to copies of the documentation since May 2016. Teachers usually provided brief captions to explain the scenes in the documentation only to copies for parents and guardians. It was presented next to the entrance of each classroom. Parents could look at them whenever they wanted when visiting the classroom or just before picking up their children and going home.

### ***Other datasets: A questionnaire***

We collected other datasets by administering a questionnaire to parents and guardians about how the documentation inspired the parents and guardians. We designed the questionnaire based on the results of previous research on the effects of photo documentation, composed by the practitioners and parents (Matsui, 2015; Rintakorpi et al., 2014). We then modified the questionnaire items through discussion.

In the beginning, we asked the parents and guardians about their backgrounds, their experiences of how much the documentation enhanced their interactions, and some other open-ended questions (i.e. the most impressive article, and their comments on the practices in the documentation the parents had read). Moreover, we asked them to rate their experiences of the documentation based on 20 items of a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

We administered the survey in January 2017 for a class on which action research began to be performed starting in May 2016, and December 2017 for three classes on which research began in May 2017. Firstly, all participants received an explanation of the procedures and ethical conditions from teachers and through letters from us. Next, we distributed the questionnaire to the kindergartens, and collected it from them as well. A total of 124 parents/guardians (93.2%) responded.

## **Results and discussion**

### ***Impact of photo documentation on children***

The first purpose of this study was to explore the effects that daily photo documentation addressed to the children had on their play in ECEC settings. 'Listening to the voice of young children' through ECEC practices facilitates children's play as plays, that is, the development of play by themselves. Based on this view, we identified the following three categories from the narrative episodes of children's play, as mediated by the documentation.

### ***Letting children feel safe and secure in a new environment***

We found that – mainly in the initial stages of the school year term – that one impact of documentation involves letting children feel safe and secure in a new environment in order to start discovering and enjoying their play. In Japan, the new school term starts in April so that 3-year-old children are involved in various changes as they make the transition from home to school over a period of several months.

When this project started in each class, most children in the classroom were interested in the documentation on the wall. Children between 5 and 6 years old often requested that teachers record their play activities in the documentation, and checked whether their pictorials were posted. In contrast, children who were 3–4 rarely asked this of teachers during play activities, but usually looked forward to searching for the documentation, including their own photos.

The following case illustrates how documentation eased the transition from home to kindergarten for 3-year-old children. The documentation including their own photos encouraged children to take an interest in their novel play and communicate with teachers during the initial stages of kindergarten. Case studies suggest that providing



feedback to all children via this documentation (especially for 3-year-olds) puts them at ease to begin play.

#### Case 1: 3-year-olds (April–May 2015)

*Kazu was usually crying when he started the day at the kindergarten in April. However, after the documentation was displayed in May, looking at the documentation became his daily task in the morning. That definitely changed his attitude. Kazu came to tell teachers spontaneously, 'Look! I'm here!' He was smiling and pointing out his picture in the documentation. Moreover, Kazu sometimes requested the teacher to take a photo of his Lego artefacts, expressing his pride and joy in the documentation.*

#### *Involving children in play activities for several days*

After the initial stages, children's interest in the documentation changed gradually since they became accustomed to it being shown in their classrooms. Over time, they expressed less interest in whether their photos were included in the documentation. Nevertheless, their interest in it continued, and they found it served a new function, that is, providing the information of their play. The following case suggests that documentation could help children to enjoy their play subsequent to the days leading up to it. Hence, recalling and reflecting on their play through documentations triggers children to come up with new ways and places to play.

#### Case 2: 3–4 year-old children (14–16 February 2016)

*On Friday, a few children poured sand into the hole in the table while they enjoyed pretending to play 'Barbeque' in a sandpit. Next, they figured out how to make*

*a heap of sand under the table by accident. The teacher included the scene in the documentation.*

*After lunch on Monday, while looking at the documentation, Kana said happily, 'Oh, I'm gonna do it starting now. Miss! Look, it's a barbeque yesterday'! 'Me, too'! said other children. Her idea spread rapidly to others. 'Please look, Miss. This is a barbeque'. Kana pointed the photo out and repeated what she said to the teacher.*

*Kana and her friends were trying to make a higher heap under the table compared to the previous days. One of them proposed adding a little water to the sand based on her experiences of previous play. Three days later, their sand heap finally reached directly below the table board! (see Figure 3)*



Figure 3. Case 2 photos: three-to-four-year-old children

*This experience, which they had enjoyed with others, inspired them to play with their peers on the slide on the kindergarten playground. As the teacher clipped out photos of their play and integrated them into the documentation, more students became interested in joining. When the play started, children on the slope often asked others, 'Come here and put on my back!' However, after the play was displayed in the documentation, most children became willing to join the queue on the slide without asking each other for permission.*

### *Enriching children's communication with others*

The documentation illustrates play at a particular time and place for later reference. Hence, it often encourages children to talk about play with others, even if they did not play together. The following case shows that children can develop a sense of play beyond the teachers' expectations, which is mediated by the children's interactions. Case studies indicate that communication among the children, enriched by the documentation, enables them to develop play for themselves.

#### Case 3: 5–6 year-old children (16 September 2015)

*Haru found a mantis egg case on the branch of a cherry tree on the playground. He took a picture of it and looked it up in an illustrated encyclopaedia for children with his friend Nene. 'We can all share, can't you'? Nene said to Haru.*

*Haru was inspired and created original 'documentation' to share his findings with others. His documentation contained printed photos of the mantis egg case, photocopies of various kinds of mantises from the illustrated encyclopaedia, and some captions to explain them (Figure 4). Haru's 'documentation' was displayed on the wall and introduced for everyone to see at the class assembly.*



Figure 4. Case 3 photos: five-to-six-year-old children

## ***Impact of the photo documentation on parents/guardians and teachers***

### *Documentation for parents/guardians*

The results of the questionnaire showed that 117 parents/guardians (94.4%) have seen the documentation previously. In terms of interactions with others triggered by the documentation, the number and percentage of parents/guardians is as follows (in Figure 5): (1) daughters and sons (N=100; 80.6%); (2) the parents/guardians of other families (N=91; 73.4%); (3) family members (N=66; 53.2%); and (4) classroom teachers (N=40; 32.3%) and (5) other teaching staff, as well as their children's classmates.

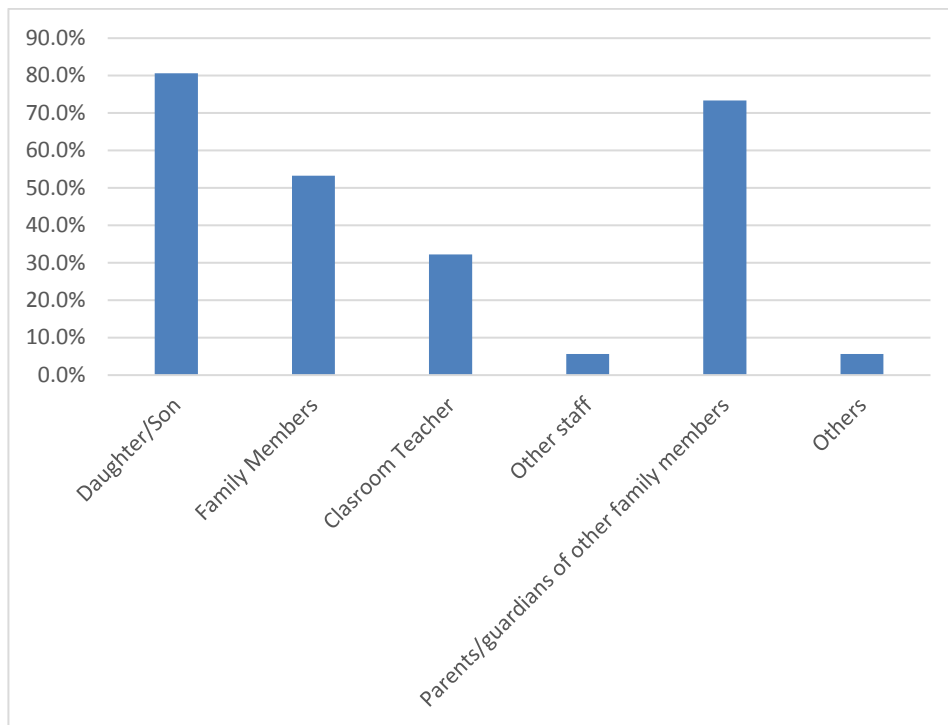


Figure 5. How much the documentation enhance parents'/guardians' interaction?

Table 2 displays the mean scores and standard deviations of each item regarding the experiences derived from the documentation. Moreover, to explore what parents and guardians focused on in the documentation, we categorised participating parents and guardians into the following two groups according to the average number of times their

children appeared in the photo documentation in each class: (1) more frequently (N=72; average appearance=4.90 times per month); and (2) less frequently (N=52; average appearance=3.27 times per a month). An independent sample t-test ( $p < .05$ ) revealed no significant differences in the mean level of all 20 items between more and less frequent.

Table 2. Descriptive statistics of the questionnaire for parents/guardians

Questionnaire Items: "What effects has the documentation had on you?"	Mean	SD
I have come to understand how children normally play in kindergarten.	4.74	0.56
I have been able to see what/how children are doing something during the planning/rehearsing processes before school events.	4.68	0.72
I have been able to discover a new aspect of my child's behaviours I've never seen.	4.61	0.73
I have become interested in how my child plays in kindergarten.	4.55	0.89
The documentation makes me feel happy about my child's growth.	4.50	0.82
I have had chats more frequently with my child than before about what she/he has done at kindergarten.	4.44	0.97
I have become interested in how my child's classmates play in kindergarten.	4.43	0.89
The documentation makes me feel happy about the growth of my child's classmates.	4.41	0.88
I have come to feel my child to be lovelier than before.	4.39	0.98
I have become interested in child development.	4.34	0.96
I have come to understand how the classroom teachers think about their students.	4.31	0.96
I have come to understand the pedagogical beliefs of the classroom teachers.	4.31	0.95
I have come to feel my child's classmates to be lovelier than before.	4.30	0.98
I have been able to give my child more positive feedback.	4.15	1.01
I have had chats more frequently with the other parents and guardians than before about what our children do in kindergarten.	4.04	1.12
The documentation has given me a chance to try facilitating my child's play at home in the same way as my child enjoys it at kindergarten.	3.92	1.12
I have been able to give my child's classmates more positive feedback.	3.87	1.05
I have had chats more frequently with my child's classmates than before about what they do at kindergarten.	3.86	1.20
I have had chats more frequently with the practitioners than before about what the children do at kindergarten.	3.65	1.05
The amount of time to play with my child has increased.	3.51	1.02

These data suggest that the photo documentation may have inspired the parents and guardians, even though their children do not necessarily appear in the photos. A plausible reason for this could be that the photos of their children did not directly mediate their interests, but the communicative experiences of the parents and guardians enriched by the documentation did mediate their interest. That is to say, photo documentation may enhance interactions between practitioners and parents/guardians. The documentation might enhance the communicative experiences with parents/guardians (see Figure 6), and also help to create connections and partnerships between the centre, home, and extended family (Reynolds and Duff, 2016).

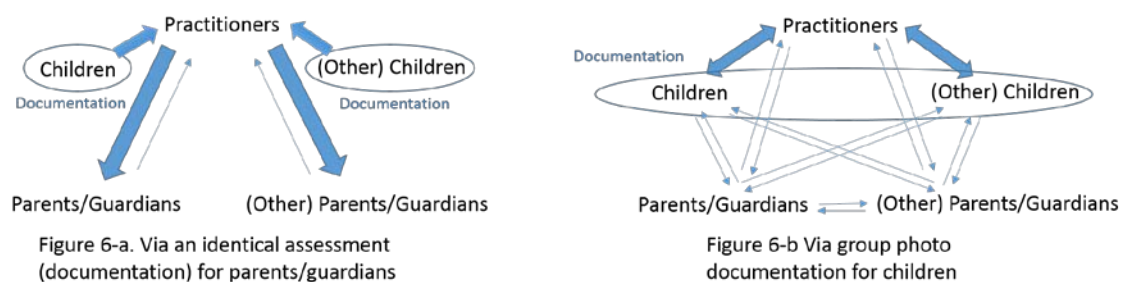


Figure 6. Processes of communication produced by the documentation

### *Documentation for practitioners*

The classroom teachers who created the documentation said that the processes of selecting photos played an essential role in helping them to review the development in the children's play on the day in question. They chose the photos and created captions for them, while they considered and predicted whether the children were willing to enjoy the play, the play was exciting for the children as well as the practitioners, it was likely to continue the next day, and other questions. It took 20–30 minutes to compose the daily documentation at the beginning of this project; the amount of time required has gradually decreased as the teachers have become accustomed to doing it.

These results imply that daily photo documentation might encourage practitioners to create their practices and pedagogies based on children's view through the reflecting and assessment process of children's play. Furthermore, such documentation is realistic for and helpful to busy practitioners (Carr, 2011).

Several limitations require consideration concerning this study. For example, we need to explore the relations between children's learning processes, curricula of the ECEC settings and the play picked up in the photo documentation. Notwithstanding these limitations, this projects suggests that daily photo documentation may help to enhance the understanding of how to capture and improve the quality of ECEC through the discourse of meaning-making.

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