

Analysis of affordances for Digital Natives' Learning Agency and Socio-emotional Wellbeing through Reflection on Photographs and differences between Korea and Finland

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Abstract: The purpose of this study is to find affordances for children's socio-emotional wellbeing and learning agency, which are expected for the digital generation to develop through digital devices. With the collaboration of a Finnish research team, this study was conducted in 2012 - 2013 at a Korean kindergarten with seven children who were 6 to 7 years old. These digital native children utilized digital photographs to supplement the limitations of their verbal expressions. This qualitative research was conducted by two adult researchers and seven preschool children as co-participatory researchers so that the perspectives of the children as well as the adult researchers were reflected in the results. The children took photos of events that the children found positive in their lives and had reflective interaction sessions with the adult researchers regarding the self-chosen photos. The results suggest that there are two major affordances, achievements and relationships, that promote children's agency and strongly support the construction of their socio-emotional wellbeing. Korean children seem to have a weaker learning agency than Finnish children. In addition, the degree of the children's engagement in the interaction helps to demonstrate their agency.

Keywords: *Early Childhood, Agency, Socio-emotional Wellbeing, Co-Participatory Research Method, Interaction, Digital Native, Literacy Through Photography*

Introduction

This study is intended to identify affordances, which influence the learning agency and socio-emotional well-being of digital natives through reflections on photographs. The children at the kindergarten were born in an environment rich with technology; for them, technology is everywhere. Children born in the 21st century are the digital native generation who are relatively familiar with and interested in utilizing digital devices even in their earliest years. Learning agency is the ownership of learning where learners make decisions in their own learning processes. Learning agency is one of the most important educational issues in education, alongside the issue of how to engage learners. Using photographs to understand the affordances and social-emotional well-being of a child's learning agency is based on a pedagogy called literacy through photography, which is a pedagogy that promotes a high level of engagement in learners and encourages children to explore their world as they photograph scenes from their own lives. They are able to use their images as catalysts for verbal and written expression (Ewald et al; 2011).

Design

The design for this study is an ad hoc approach. Researchers asked children to take photographs of their positive life events and reflect on the photos. They investigated moments that children felt were interesting, happy, glad or important. Researchers collected the children's photos and observed their life events not only in person but also in the photos because kids cannot yet express themselves well through verbal or written modes of communication. Rather they are expected to freely express themselves by sharing their pictures. Digital natives tend to feel more comfortable with manipulating digital multimedia devices than they do with writing. Children as co-participatory researchers were requested to use digital cameras to document their life events. After taking photos, researchers and children had interaction sessions where they verbally identified moments the children deemed good and important.

In the 'children as co-researcher' methodology (Kumplainen, K. et al., 2013; Goldman-Segall, R. 1998), children are actively involved in multiple phases of the study. As active agents, the children themselves participated in the data collection by taking and choosing photos, and in the analysis process by reflecting on the photos and interacting with the adult-researchers. Especially during the photo reflection sessions, children worked in the supportive social contexts, in which the topics of discourse were mainly focused on their life events. Therefore, the children's engagement in this research procedure not only implicated their sense of agency, but also supported agentic experiences in which the children were positioned to do something of their own volition (Kumplainen, K. et al., 2013). The episodes of the interactions were categorized into affordances and were analyzed against Finnish data. This study is a pilot to develop further international comparative studies between Finland and Korea later in this year.

Methods

This research was conducted from Dec. 2012 to March 2013: one month to collect data and the rest to interpret the data in Finland and in Korea separately. In Korea, A total of seven children (6-7 years old, 4 girls and 3 boys) participated. These children were recommended by their own teachers for their high level of performance in school, since the assumption is that high-performing children would show a sense of agency more distinctly. Two researchers, both with teaching certificates, observed and communicated with the children while in school.

For one week, these children were asked to take photos of positive things or events from their perspectives in and out of the school setting. They were encouraged to take photos of people, things, and situations that they felt were interesting, happy, glad, or important. After collecting photos, there was a reflection day in which each of the seven children talked about their photos in a quiet room, alone with two adult researchers (one interacting with the child and the other observing and taking notes). During the reflection time, each child was asked to choose about ten photos that he or she considered to be the most important or interesting of all the photos he or she had taken. The researchers started the reflection by asking which photos were the most important or interesting to them, and why. In general, the photo-reflection session for each child took about 30 minutes. The interactions between each child and the researchers during the reflection sessions were video recorded for later interpretation.

The data analysis was done mostly examining the child-adult interactions as well as the photos themselves. Via a micro-level examination, two adult researchers looked through the child-selected photos and watched the videos to analyze the episodes of the interactions, focusing not only on the verbal interactions, but also on the non-verbal ones. Researchers tried to categorize affordances for those events and things that were meaningful to the children.

Results

From the analysis of the child-adult interactions, we found two distinct affordances; *achievements* and *relationships*, and four minor ones: *stories*, *participation in activities*, *meaningful artifacts*, and *sense of self*. The children considered *achievements* as important affordances for positive events in their lives. Achievements refer to the admirable outcomes or products of their work or activities, which indicate the children's agency and pride. In addition, *relationships* with others such as parents, siblings, teachers, and friends, were shown as significant affordances. During interactions, for example, the children described how they played with friends, how close they were with friends, the great times they had with family and the ways their parents helped and took care of them.

	<p>1. <i>Achievements (Episode: I got the gold medal)</i> R: Can you tell me? What is this picture? S: It is I got the gold medal. R: This gold medal? S: Yes. (omit) R: Why did you choose this picture to show me? S: Mm, I like that I got the gold medal.</p>
	<p>2. <i>Relationships (Episode: He is a little close friend to me)</i> S: Yoon is a little close friend to me, when playing with me. He could play or could not play with me, but I just wanted to take this photo at the cafeteria so I took it. R: Just wanted to take a photo at the cafeteria? S: Yes. R: Did this friend ask you to take a photo? Or you wanted to take a photo first? S: It was me. (omit) R: Was your friend happy with the photo? S: Said "good photo!" like this.</p>

The Korean children who participated in this research were found to show passive engagement compared to the children in Finland. This finding indicates that children in Korea tend to have a weaker sense of agency that drives them to do something on their own volition. In the results, especially the Korean study, not only the expressions of the children but also the questions, feedbacks, and co-narratives of the adult researchers are emphasized because of the possible influence the perspectives of the adults' had on the children's engagement. For example, the Korean children seemed to put more attention not on what they wanted to talk about, but on what they were *asked* to talk about. Their conversations seldom digressed from the researchers' questions or from the photos themselves, while the Finnish children sometimes extended their stories beyond the boundaries of the photos (Kumpulainen et al; 2013).

Our study showed similar results of a prior psychological study; Asian American Children showed better performance on tasks chosen by the parents whereas European American children did better on tasks chosen by their own volition. To European American children, having somebody choose their ways worked as negative extrinsic motivator, while it worked as rewarding intrinsic motivator to Asian American children (Mark Lepper; 2009). Therefore, East Asian children tended to let adults or parents make decision on their own lives more often than the children with Western European culture.

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