

Young children's play in a daycare classroom in South Korea during COVID-19 pandemic

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Abstract

This qualitative study examined how five-year-old children in a South Korean daycare classroom experienced and responded to changes in their play environment during the COVID-19 pandemic. Seven children and three teachers participated, and data were collected from diverse sources: classroom observations, interviews, the COVID-19 guidelines, and children's drawings of plays in the classroom. Through the qualitative data analysis, it was found that children's play became increasingly individualized due to social distancing and spatial constraints, yet children actively employed coping strategies such as solitary imaginative play, teacher-facilitated pretend play, and adaptive use of materials. We also found that children accepted the changed classroom play environment and developed various strategies to cope with the environment; recognizing the seriousness of pandemic, accepting the changed play environment, using their imaginations as their adaptive strategy, and engaging in play flexibly.

Keywords : *children's coping strategies, children's adaptability, play environment, play-based curriculum, daycare center*

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Introduction

Play is one of the essential rights for children, as article no.31 of the United Nations Convention on the Rights of Child emphasizes it (UNICEF, 1989). Children earn new learning experiences, gain social, emotional, intellectual skills, increase problem-solving abilities, develop imaginations, interact with others, and grow through the happiness and joy experienced by playing (Anderson-McNamee et al., 2010; Burriss et al., 2002; Elkind, 2008; Herrington et al., 2015; Saracho et al., 1998; Van-Hoorn et al., 2015). Accordingly, the role of play for young children's development and education has been a main topic in the early childhood literature since the early nineteenth century (Osborn, 1991). The importance of play in Early Childhood Education and Care (ECEC) is already well-known, such that play-based curriculums are operating at a national level in many countries such as Canada, China, Britain, New Zealand, Hong Kong, and Japan (Pyle et al., 2017). Likewise, the national curriculum for ECEC in South Korea highlights the child-centeredness and play-centeredness (Ministry of Education & Ministry of Health and Welfare, 2020). In the South Korean national curriculum for Early Childhood Education and Care (the Nuri Curriculum), the concept of 'child-centeredness' is defined as an educational approach emphasizing the active consideration of children's individual needs, interests, and perspectives during the planning and implementation of activities (Ministry of Education & Ministry of Health and Welfare, 2020). This definition aligns closely with internationally recognized conceptualizations, which similarly underscore the importance of children's active involvement in decision-making processes that directly affect them (Broadhurst & Holt, 2009; Gladstone et al., 2012; Harris, 2011; Kazak et al., 2010). In addition to child-centeredness, the term 'play-based curriculum', as outlined by the Nuri Curriculum, refers to an educational approach wherein children's spontaneous and voluntary play activities serve as the core vehicle for learning and development. It emphasizes providing children ample opportunities to freely explore, experiment, and engage creatively with their environment and peers, thus fostering holistic development including social, emotional, cognitive, and physical growth (Ministry of Education & Ministry of Health and Welfare, 2020). This definition corresponds with international perspectives highlighting play as central to early childhood pedagogy (Pyle &

Danniels, 2017; Weisberg et al., 2013). Through the child-centered and the play-based curriculum, South Korean children in ECEC institutions spend lots of time playing both indoors and outdoors, and teachers support children's play by respecting their interests in any play they play.

As coronavirus (COVID-19) spread out all over South Korea few years ago, the government released the COVID-19 guidelines for ECEC institutions. The guidelines included social distancing between children, playing individually in classrooms, and wearing masks all day (Ministry of Health and Welfare, 2022). The guidelines across different versions consistently emphasized that children need to play individually in classrooms and stay apart from their classmates. Even though play is an important element for children's well-being, children's play in ECEC institutions was supposed to be disrupted by the COVID-19 guidelines. Moreover, children's play experiences might be affected by confined play environments in classrooms. Thus, it calls for research that investigates restricted play environment in ECEC institutions and how children cope with the changed play environment during COVID-19 pandemic.

The two primary purposes of this study were (1) to provide descriptive information regarding how the play environment of an ECEC institution in South Korea changed during the COVID-19 pandemic, and (2) to identify specific challenges that children confronted within this converted play environment, as well as the adaptive strategies they developed in response to these new play conditions. By pursuing these aims, this study contextualizes why it is crucial to examine three interconnected components within the introduction: the play environment, children's coping strategies, and the specific context of ECEC in South Korea.

Play Environment

The environment in the ECEC settings plays an important role in children's development and learning (Evans, 2006; Guo et al., 2012; Storli et al., 2019). Many studies show children's plays, activities, behaviors, and academic performances are affected by the environment (Maxwell et al., 2008; Sando, 2019). Environments of play cover components such as health, safety requirements, teacher-child ratios, group size, teacher education, facility space per

child, stability of teachers, children-teacher attachment, interaction, and curricula (Acer et al., 2016). Environmental factors in ECEC settings take significant roles in making children easy adapting in classrooms, developing cognitive aspects, providing opportunities to make relationships with others, and obtaining academic skills (Acer et al., 2016; Essa et al., 2015). In this study, the ‘play environment’ refers to both the physical and social conditions shaping children’s play experiences within the ECEC classroom context. The physical environment included spatial arrangements (e.g., desk placement and distancing), the availability and accessibility of play materials, the organization of classroom furniture, and restrictions such as limitations on shared play areas or playmats. While aspects such as play duration were observed, our primary focus remained on the physical setup and how it impacted children’s engagement in play. The social environment was examined in terms of peer interaction, teacher-child dynamics, and classroom rules that governed play behavior. Although coping strategies are psychological in nature, we considered them part of the social environment insofar as they emerged through children’s social navigation of classroom norms, peer availability, and teacher expectations during the pandemic. This study did not aim to exhaustively address all components of the play environment but instead focused on those most visibly and functionally altered due to the COVID-19 protocols. Therefore, in the current study we aim to investigate what changes have occurred in both physical and social environments in the ECEC institution in Korea during the COVID-19 pandemic. To understand deeply, we used qualitative methods by observing classroom where play takes place, and by interviewing teachers and children who involved in plays.

Recent studies on early childhood education during the COVID-19 pandemic have reported significant modifications in classroom arrangements, including restrictions on interactive play spaces and individualization of play areas (Yu et al., 2021). Such changes often led to increased challenges in children’s social interactions and play behaviors (Sando, 2019). These prior findings indicate the necessity of examining precisely how the physical and social environments changed within South Korean daycare centers during the pandemic, and understanding the specific challenges faced by children in these contexts.

Children Coping Strategies

Adaptation to stress and adversity is the key to human development (Compas et al., 2001; Lazarus et al., 1984). There is a consistent relationship between stress and psychological and behavioral problems in children (Compas et al., 2014; Dubow, 1989; Skinner et al., 2007; Valizadeh et al., 2012). Stressors are stimuli that come from changes in the environment, and stress derives from responding to the stressor (Ammaniti, 2010; Boonstra, 2013). Stress may or may not result in negative outcomes depending on how it is adapted and handled (Raineke et al., 2014; Smith et al., 1997). When environments and situations are stressful and constantly changing, people use the strategy called “coping” to manage and adapt in them (Lazarus et al., 1984). Coping is an active process which is connected to cognitive, emotional, and behavioral strategies, and it is shown in situations to adapt to, change, or manage stressors (Compas et al., 2012; Compas et al., 2017).

Children develop through coping because it helps them to face difficulties (Leipold et al., 2009). Personal and environmental factors, such as age, gender, temperament, developmental level, the environmental context where the stressor arises, personal resources, ways of coping, and personal control, affects children's coping strategies (Compas, 2001; Lazarus et al., 1984). Some coping strategies might improve adaptation while some may increase the risk during stressful events (Fallin et al., 2001; Jackson, 2009). Moreover, psychological and environmental resources, such as health, energy, positive beliefs, problem-solving skills, self-esteem, mastery, social skills, material resources, and social support, also influence children's coping (Carver et al., 2010; Lazarus et al., 1984). Parents and peers are also important factors who promote coping cultivated in childhood (Grotberg, 2003; Spratling et al., 2019; Wentzel et al., 2010), and teachers play an essential role in helping students manage daily stress (Fallin et al., 2001).

In the current study, we tried to find out how children cope with challenges they face, regarding the COVID-19 guidelines for ECEC institutions as main stressor acting on children's play in classrooms. It is interesting to find out how children understand and adapt to plays, and what factors are important in play, because there is no common definition of play (Vickerius et al., 2006). Previous research highlights that young children typically

develop various coping strategies in response to stressful changes in their environments, such as employing imaginative play or seeking alternative forms of social interactions (Compas et al., 2017). Studies indicate that children's adaptive capabilities are significantly influenced by factors such as available social support from teachers, peers, and the availability of diverse play materials within their learning environments (Fallin et al., 2001; Wentzel et al., 2010). These findings provide a solid foundation for examining how South Korean children specifically developed coping strategies during the COVID-19 pandemic and which factors significantly facilitated their adaptation.

The ECEC Context in South Korea

Children in South Korea, up to five years old, have an opportunity to use governmental education and care services. ECEC institutions are rooted in two different government departments and operate separately. Ministry of Education is responsible for kindergartens which are for children aged three to five. Kindergartens focus more on children's educational parts, and they follow the Early Childhood Education Act. Ministry of Health and Welfare is in charge of childcare centers which serve children ages zero to five. Childcare centers provide services more related to children's care, and they comply with the Early Childhood Care Act.

Ministry of Education and Ministry of Health and Welfare co-developed one national curriculum, the Nuri Curriculum, through integrating two separate curriculums to give equal opportunities of education and care to children in South Korea (KICCE, 2013). The revised Nuri Curriculum, executed in 2020, emphasizes the importance of play in early childhood and encourage the ECEC institutions to make an effort on getting children involved in play by own interests (Ministry of Education & Ministry of Health and Welfare, 2020). However, the revised curriculum might not be operated normally due to the COVID-19 pandemic; hence ECEC institutions are still struggling between the play-based revised curriculum which emphasizes the importance of unconstrained play and the COVID-19 guidelines which focus on children to play in restricted classroom environment. In Korean early childhood education settings, peer play holds an important role in supporting children's development. The Nuri

Curriculum not only emphasizes play-based learning but also encourages collaborative and interactive play among children. In South Korea, studies suggest that the COVID-19 pandemic led to considerable shifts in ECEC practices, including significant limitations on peer interactions and increased teacher intervention to manage health-related guidelines (Yu et al., 2021). Given the central role of social interactions within the Nuri Curriculum's play-based learning model, such disruptions pose distinct challenges for children's daily play experiences and social development, underscoring the importance of exploring these issues closely within the Korean context. Peer interactions are seen as essential to fostering communication skills, empathy, and cooperation. As such, physical classroom arrangements and daily schedules are typically designed to promote shared play experiences. However, during the COVID-19 pandemic, these peer interactions were significantly limited, disrupting the relational dynamics that are core to children's learning experiences in Korean ECEC institutions. In Korea, children spend a great deal of their day in the ECEC institutions, so it is interesting to investigate children's play from the curriculum that highlights the importance of play.

The Research Questions

- (1) What did the play settings in the classroom of an ECEC institution look like during the COVID-19 pandemic?
- (2) How did children cope with the challenges they faced in the changed play environment?

Method

In this study, a qualitative case study format was used to explore play environment and children's play in a daycare center classroom. Natural observation was essential for this study in order to investigate the play environment of the classroom and children's coping strategies, and social interaction (Marshall & Rossman, 2014). A descriptive case study helps to present a richer understanding about the areas in which little research has been done and by adding

realism and in-depth examples (Baskarada, 2014).

Settings

This study was conducted in a class for 5-year-old at the daycare center in Seoul, South Korea. The daycare center is a workplace daycare center where young children from 6 months to 5 years attend. Parents in the daycare center are generally open to visitors and researchers in the classroom, yet some may feel uncomfortable having a researcher in the classroom, so usually researchers attempt to build a rapport with teachers and children before or during the research. Since one of the authors is working as a sub-teacher in the Z daycare center, she already built a rapport with the center's administrator, teachers and children in the center.

Ethical considerations

Efforts were made to minimize discomforts, ensure confidentiality, and be careful of intrusion. We met with the director of the center and discussed the research purposes and methods, and obtained the permission to observe children play in the classroom and interview with teachers. We then met the 5-year-old class teacher and explained the study, including explanations of why we picked her class, and got a positive response from her. We also asked two more teachers in the center to participate in the study and received a positive response from them too. After that, we sent detailed information about the study and consent forms to parents and teachers. They had two weeks to read and sign the forms and were free to ask questions about the study. We emphasized participating in the study was voluntary, so anyone who feels uncomfortable with the study could refuse to participate. After collecting the consent forms, the classroom observation and interview began. Children whose parents did not agree to participate in this study were not video recorded nor were they interviewed.

All participants' names were anonymized, and all responses were treated as confidential. One of the authors had previously worked as a teacher at the research site, which helped build trust with the staff and children. However, to avoid role confusion, the researcher maintained

a consistent observer stance and refrained from participating in classroom activities. The research team acknowledged the dual positionality of being both familiar adults and external researchers. During interactions with the children, particularly during interviews, the researcher made clear distinctions between playtime and research time to minimize disruption. Due to COVID-19 safety protocols, the researcher maintained appropriate physical distancing and avoided prolonged face-to-face interactions. Questions were asked in a soft tone, from a distance, and typically one-on-one. Children's comfort and consent were continually assessed, and interactions were kept brief to maintain health guidelines while preserving respectful engagement.

Participants

Participants were 7 children and 3 full-time teachers. Children were all at age 5 at the beginning of the data collection, and four of them were girls. There were ten children in the class but 3 of them did not provide the consent so we did not observe them. We chose to observe the play of 5-year-old classroom, because they were already in their early childhood before the COVID-19 pandemic. We expected the children to be able to remember their play before the COVID-19 pandemic and note the changes in their play environment and how they play during the pandemic.

All of the participating teachers were female with each taking care of children in a separate classroom. Amy was in charge of a class of 4-year-old children, and she had been working as a daycare center teacher for 7 years. Bell and Cindy were both in 5-year-old class, having worked as teachers for 8 years. They were selected as participants because they had been teaching preschool-aged children for 2 years during the COVID-19 pandemic. We expected they would notice the changes of play environment in classrooms, children's reactions to the changed situations, and how children cope with the challenges. In the current study, we used pseudonyms to ensure confidentiality for participants. Additionally, all participants including children and teachers were Korean and shared a common cultural and linguistic background.

Data collection

We used natural observations and in-depth interviews as the main source of data. The focus of the observations was on how play settings looked like and how children coped with the challenges they faced in the changed play environment during the pandemic. Observations were conducted twice a week for two months every morning during free-play time, about 1 to 2 hours. Information including date, time, participants, classroom settings, supports which teachers provided, and interactions between participants were recorded during the observation. The researcher sat in the corner of the classroom and took field notes. She sometimes asked children how they felt during the play, while being careful not to disturb children's flow during the play. Children were allowed to look through the camera lens if they were interested. They were also free to ask questions and have a small talk with the researcher if they wanted. In-depth interviews with the teachers were held twice after work, took 30 minutes to 1 hour with each of the teachers. Through the interview the researcher asked the teachers how they supported children's play through preparing appropriate supplements in the play settings, and what they found from children's play during the pandemic. The researcher asked additional questions to Bell, who was the teacher of the 5-year-old class, when she had something curious in play time observations. To supplement the information on children's play during the pandemic, we gathered the COVID-19 guidelines, children's drawings of plays in the classroom, materials shared at faculty meetings, and photos of play time.

Data analysis

Since videos allow the researchers to revisit the data to see things from a new perspective (Fleer, 2009), we watched the videotaped observations right after recording and transcribed them in detail. As we transcribed the videotaped observations, we also rewrote the field notes to describe the scene vividly. The interviews were transcribed verbatim from a voice recording within three days of the interview date by the researcher. All of the transcripts and the field notes were read carefully many times to find themes in line with the research

questions. While reading the transcripts, the researchers made a note on questions that came to mind and kept on reflecting on the questions to reach the answer. The data collected from observations, interviews, and drawings were analyzed using an inductive thematic approach. The emic perspective was used in the study to capture participants' indigenous meanings of real-world events (Yin, 2010) and look through the eyes of participants (Willis et al., 2007). Emic coding was employed to stay close to the children's lived experiences and expressions. Rather than applying predetermined categories, initial codes were derived directly from children's words, behaviors, and play narratives. The coding process was done by the following steps. First, we underlined keywords and sentences relevant to the research questions in transcriptions. We then created a list of them and classified them into small groups. Next, the small groups were arranged in order. Data that were irrelevant to the small groups were omitted. After that we looked through the small groups, extracted middle groups out of them, and made the title of the groups. Once the categories were drawn, findings and results were shared with Bell to ensure trustworthiness (Hafiz, 2008; Lincoln & Guba, 1985), and to obtain feedback.

Results

The Play Environments During COVID-19

During the COVID-19 pandemic, the classroom layout underwent a significant transformation that directly affected children's play. Individual desks were spaced one meter apart, facing the same direction, resembling an elementary school setting. This layout was implemented to meet social distancing guidelines. The playmats were moved to the back of the room and remained largely unused. The classroom furniture, such as toy storage, piano, bookshelf, and teacher's desk, was pushed to the edges of the room to create an open central space for desk placement. The detailed content will be described in the following section.

Classroom play settings during the pandemic

The classroom resources such as toy storages, a bookshelf, a piano, drawers, a board, and teacher's desk were all displayed around the wall to make enough space for children to maintain social distancing. As Figure 1 shows, individual desks were placed in the middle of the classroom heading the same way as elementary school classrooms, and they were one meter away from each other. Play-mats were placed on the back of the classroom, and no one was playing on them. Before COVID-19 occurred, children usually played on play-mats which were placed closely to the play resources, and the desks in the classrooms were located in various places, in the middle of the classroom, in the art section, beside the bookshelf, and so on. However, during the COVID-19 pandemic children could not play on play-mats because of the social distancing rules. Children grabbed play resources and set the desk. Even though play-spaces are important elements to consider in the early childhood play environment, children were unfree using classroom play-spaces while playing, which led to play solely.

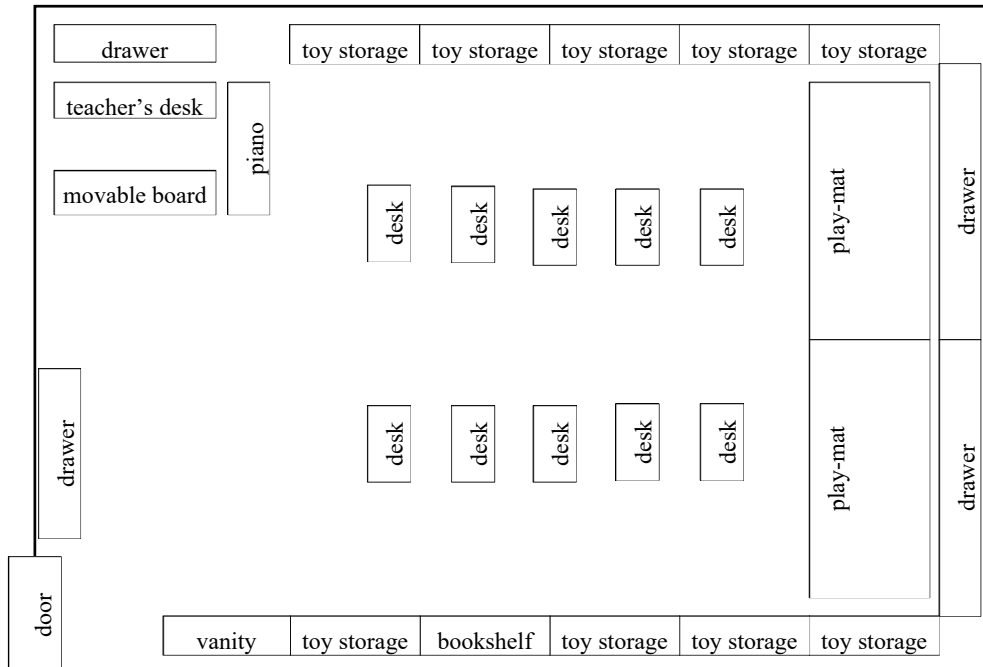


Figure 1. How the Classroom Looked Like during COVID-19

Children were given one and a half hours to two hours of free play time each in the morning and in the afternoon. The researcher observed children's play in the morning play time. Children started free-play right away, without any teacher's directions, as they come into the classroom after having morning snacks in the cafeteria. They did not have limits on using play resources in the classroom. We noted during observations that children had their own routine on selecting play resources and usually picked the same resources every day, with little changes. Children usually grabbed three or more kinds of play resources and put them on their desks before starting to play. In Figure 2, we can see photos of children's desks during play time.

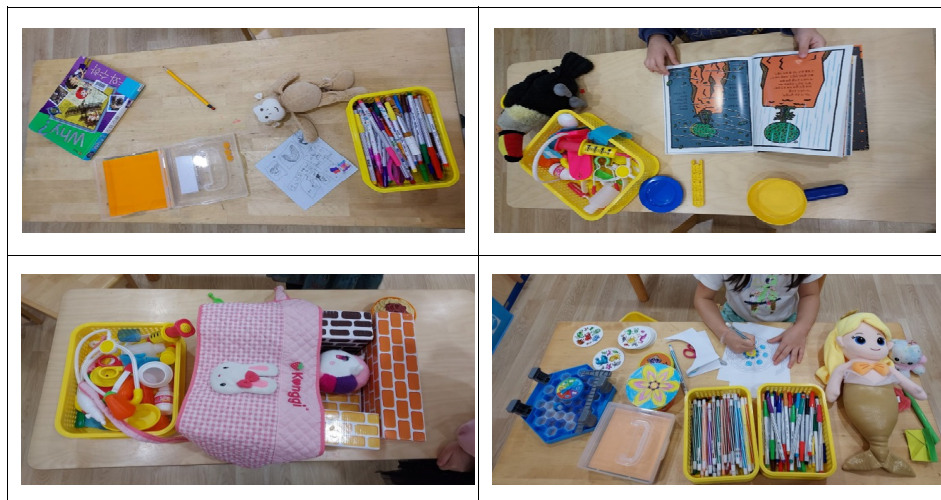


Figure 2. Photos of Children's Desks During Play Time

Individual play and social distancing in the classroom

The COVID-19 guidelines on daycare centers emphasize to wear masks, maintain social distancing, play individually, and restrict entrance of visitors. During observations, as children started to play in the classroom, they first played on their desks alone, but all of a sudden, they started to interact with their classmates and shared their thoughts and feelings during play. The teacher constantly announced children to play individually when children started to engage actively in verbal interactions. Children tried to lower their voice and

concentrated in the play. Natural interactions between classmates during playtime are usual situations we see in early childhood classrooms. However, these natural interactions were restricted by the COVID-19 guidelines. When the researcher asked children what the play rules in the classroom were, most of the children shared the same rule first, which was playing individually maintaining social distance between classmates:

Mia: We can't play with friends if there are too many friends in the classroom. (Spreading her both arms wide to show how far) We should stay far from each other and can't move closer.

Eugene: We must keep distancing because of the coronavirus.

Moreover, when the researcher asked children to draw how they played in the classroom, most of them drew themselves as playing alone on the desk apart from their classmates. Children's drawings are shown in Figure 3. Through drawing A, C, and D we could notice

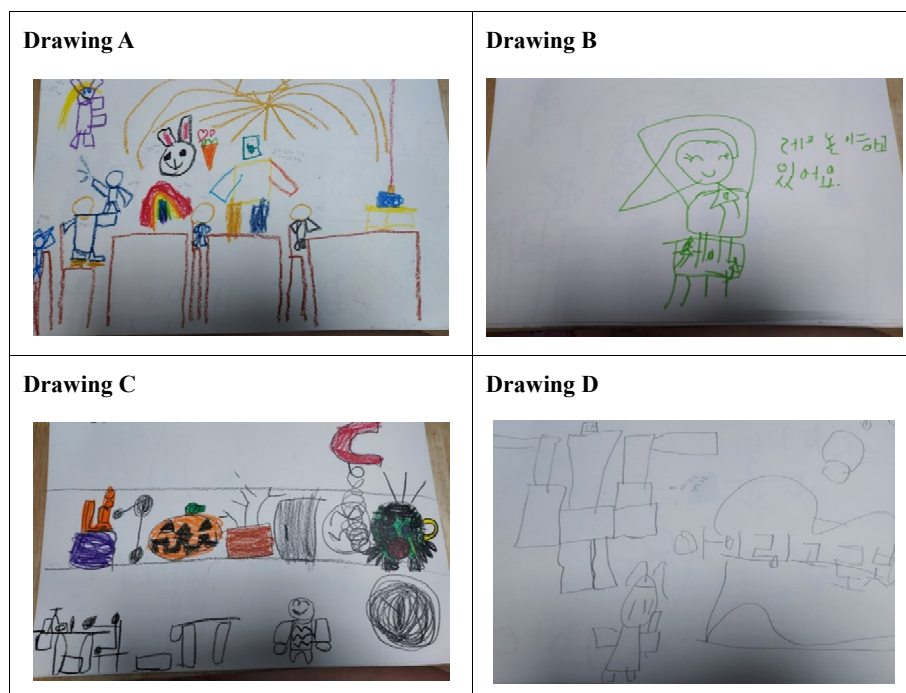


Figure 3. Children's Drawings Showing Play in the Classroom

that children played on their own desks individually. In drawing B the child wrote on the paper that the girl is playing with Lego blocks, which we could realize they usually played with Legos. In drawing C, toys in the classroom were neatly arranged on the shelves, with no signs of active use. While the child did not provide a verbal explanation, the image visually reflected the structured and organized layout of the classroom. Rather than interpreting this as evidence of disengagement, the drawing is presented as one child's visual representation of the classroom environment during the pandemic.

How Children Cope with the Challenges

During observations in the classroom, the researcher sometimes saw children who did not participate in play, only looking around at how classmates were playing, sitting on the desk, and they seemed they lost their way of playing. When the researcher asked them why they were just sitting at the desk and not getting involved in play, they answered they did not know what to play with and did not want to play by themselves. However, even though there were children who had difficulties in adapting to the changed play environment, on the other side there were also children who coped well with the changed environment. We found several adaptive strategies which adaptive children used in adapting in the changed play environment; accepting the situation, using imaginations, finding alternative ways, and showing flexibility. Thus, there were also teachers' efforts on supporting children's adaptation to the changed environment.

Accepting the situation and using imagination

Interestingly, some children did not realize that play rules in the classroom which were newly established during the pandemic were new. For example, there were children who thought playing individually on the desk was the original 5-year-old classroom rule. Children accepted the COVID-19 pandemic situation naturally and followed the rules without feeling uncomfortable. When the researcher asked Jason why they had to play sitting on the desk by themselves, Jason said it was because of the spread of coronavirus, seemed like accepting and adapting the present situation normally:

Jason: I feel fun playing in the classroom. Do you want to know why? Because I feel fun when I play sitting on the desk and wandering around the classroom. I enjoy my playing time on anywhere I play at.

We noted that children used imaginations as an adaptive strategy. Many children seemed to accept the socially distanced classroom norms as part of their routine. Even though they had to play individually, they seemed to enjoy the play and kept on talking by themselves as they played. When the researcher asked what they were talking about during play, children told the researcher that they had imagined that friends were in front of them and played with them in their minds:

Eugene: I play with my friends in my mind. I play imagining that my friend is in front of me.

Her use of internalized imagination illustrates how some children sustained social connection through cognitive strategies. Similarly, Jason stated:

Jason: Of course, I sometimes want to play with my friend in the classroom. I just think I am close to my friend in my mind but stay away in the real world.

In addition to these verbal expressions, children often enacted solitary play scenarios that involved imaginary friends or social scripts. For instance, Sara was frequently observed talking to her toys in role-play narratives resembling peer interaction. While stacking blocks, she said, “You wait here, I’ll bring your lunch,” as if another character were present. These imaginative play patterns suggest that children creatively restructure their social world despite environmental limitations.

Finding alternative ways to play and showing flexibility

Children who coped well with the challenges tend to find their own alternatives during play. During the observation, the researcher could see children raising their hands and asking their teacher to play together. On the interview with children, they mentioned they played more with teachers rather than classmates. They picked their teacher as their play mate

because classmates were not free to move in the classroom, but teachers were free to move around:

Eugene: I usually played with my friends before COVID-19, but now we can't. So, I play with my teacher now.

Julie: I always call my teacher to buy fruit I'm selling during play.

We noted that children found new ways to play together with classmates as they maintain the rule of individual play and social distancing. We saw children who shared the same resources and same storyline of the play, still staying apart from each other. They used parallel play across distances. For example, Eugene, Jane and Sara engaged in separate but synchronized pretend scenarios from their own desks, occasionally exchanging glances and smiling. This type of coordinated solitary play may reflect children's adaptive social sensitivity under restricted conditions.

Three girls; Eugene, Jane, and Sara, are each making something out of Lego blocks. Jane stands up, goes to Sara, and looks at what Sara is making. After Jane shares her idea with Sara, she then goes to Eugene and see what she is making. Jane tells Eugene what she saw about Sara's block, and then Jane and Eugene share ideas on what they are making. Few minutes later, they gather in front of Sara's desk and put together what they are making with Lego blocks. When they put the blocks together, it becomes a big house. After checking the size, they split them into three pieces and get back to their seat and start playing individually. [Videotaped observation]

Factors Influencing Children's Coping Strategies

Several factors appeared to influence how successfully children adapted to the changed play environment. Among these, the role of the teacher was particularly significant. Teachers mentioned that they tried to play with children one by one, because they noticed there were children who were not playing and seemed maladaptive in play. As they play one by one with children, they said they had more time interacting deeply with children and got chances to

understand them more. This individualized support helped children feel emotionally acknowledged and less isolated during playtime.

Environmental flexibility also played a role. When children showed interest in specific materials, teachers made subtle adjustments to accommodate their preferences. All three teachers told me the same thing that they changed the location of the play resources by watching which resources children use more, and they tried to support children's play by preparing various play resources time after time. These efforts seemed to help maintain children's engagement despite the limitations of individualized play.

Cindy: I tried to observe which toys children play more and which they did not play with.

I removed the ones children did not play with, re-ordered the play resources, and filled with new ones.

Amy: Most of my students all of a sudden enjoyed coloring with crayons, so I prepared various coloring sheet for them. Moreover, I filled the play storage with beads, puzzles, origami paper, and clays.

Additionally, individual differences among children shaped their coping approaches. Children who were accustomed to solitary play appeared to adapt more easily to the individualized play environment. For instance, Sara, who often preferred drawing over social play even before the pandemic, continued her quiet routines with little visible distress. In contrast, more socially oriented children like Jason initially showed signs of disengagement, requiring more teacher attention and support to adapt. These findings suggest that both interpersonal (e.g., teacher responsiveness) and intrapersonal (e.g., temperament, imagination) factors contributed to children's resilience in navigating an unfamiliar and constrained classroom environment.

Discussion

The findings of this study revealed children's play situation in the daycare center

classroom in South Korea during COVID-19 pandemic, including what the classroom looked like during the time, how children played, how they coped with the challenges they met in a changed play situation, and what factors influenced children's coping strategies. Through this study we could capture vivid moments of the classroom in the daycare center in South Korea during the COVID-19 pandemic. Details are suggested below.

First, it was clear from the classroom observation that the classroom setting of the daycare center had changed during COVID-19, with children playing individually and maintaining social distance. The arrangement of desks had changed like elementary school classrooms, and the use of play mats was limited. Children played on their own seats individually and did not have opportunities to play on mats or gather with friends and play together. Natural interactions between peers during playtime are usual situations commonly seen in early childhood classrooms. Peer interactions are social exchanges between children (Rubin et al., 2006), and peer play provides an important context for identifying patterns of social competence in young children (Mathieson & Banerjee, 2010). However, these natural interactions were restricted by the COVID-19 rules, which is an important problem to solve as children develop social skills by interacting with their friends.

Another interesting insight from the present results concerns children's adaptive strategies in classroom play. During the observations in the classroom and interviews with children and teachers, we found children who seemed not to adapt well in the current situation and losing their way in their play. They seemed to have difficulties adapting to the changed play environment and had a hard time enjoying the play. However, on the other hand there were children who adapted well in the challenged situation using their innate potential in play situations. Well adaptive children accepted the changed play environment and settings, used their imaginations to play with their classmates, were flexible on engaging in play, and took an active part in play. For example, such as asking for teachers' support on their play. When environments and situations are stressful and constantly changing, people use the strategy called "coping" to manage and adapt in them (Lazarus et al., 1984). The findings highlight children's ability to cope well in the changed situations and their inherent adaptive strategies. We focused on identifying what adaptive strategies children use in their challenged moments in the current study. As teachers play an essential role in helping young children manage

stress and adapt to challenging environments (Fallin et al., 2001), this study also showed teachers were important factors promoting children's coping. Teachers tried to interact with children individually which led teachers to understand individual children deeper, and through that teachers could support them with more details.

One of the basic concepts in child-centered play is valuing children as a person who experiences the world in a unique way, capable of accepting change in them and in the environment (Ray et al., 2015). Child-centeredness is no longer a novel concept in the field of early childhood education in South Korea. The current study noticed that the daycare center classroom in South Korea seemed hard to be child-centered during the pandemic because play settings were arranged following the rules derived from the COVID-19 guidelines. Children had to be cautious selecting play areas and toys due to the social distancing rules, and they had to ask for permission to play with their classmates. Through showing faith in children's ability, children learn self-regulation and gain confidence as well as self-worth (Pereira & Smith-Adcock, 2011). Also, the benefits of child-centered classroom management include child emotional distress, teacher stress, and facilitating development of positive relationships between teachers and students (White et al., 1997). Therefore, since future public health emergencies may again affect early childhood education settings, it is essential that institutional guidelines maintain a child-centered approach informed by developmental principles. Based on our observations, several practical strategies may support this aim. For example, teachers can facilitate semi-structured small group activities with consistent distancing to allow limited but meaningful peer interaction. Encouraging parallel play with shared themes across desks also appeared to sustain social engagement while maintaining safety. Additionally, teacher-facilitated pretend play served as a substitute for peer interaction for some children and can be systematized as a method to support children's need for social connection. These examples illustrate how play-based, child-centered practices can be adapted, rather than suspended, during future crises.

These findings suggest that even under physically and socially restrictive conditions, children actively engage in meaning-making through play. Their ability to adapt—through parallel play, teacher-guided interaction, and internalized imagination—illustrates the importance of flexibility in designing child-centered curricula. In particular, the observation

that children relied on teachers to initiate or sustain play highlights how adults can serve as critical social bridges when peer interaction is limited. The classroom layout, as reconstructed under COVID-19 guidelines, offers a clear example of how environmental factors influence children's social behaviors. The alignment between physical constraints and individualized play patterns reinforces the need to consider spatial design as a key component of pedagogical planning in early childhood settings.

In conclusion, this study shed light on children's play in the classroom of the daycare center, by showing what adaptive strategies children use in the changed play environment. Thus, the findings suggest that to support children's play in the challenged environment fully and appropriately, we need to recognize the importance of play environment in the play setting of ECEC institutions, realize the value of coping strategies children show, and notice the importance of child-centered view of the ECEC institutions. This study is meaningful because the research data were certainly well timed as it was collected during the COVID-19 pandemic. Thus, it is important to prepare for any of the future pandemic situations, and the present experiences can be an important steppingstone of making decision for institutions for children in pandemic situations.

Although this study focused on a single classroom and a specific age group, the findings offer a foundation for further inquiry. Future studies could broaden the scope by examining classrooms across diverse ECEC settings and including a wider age range of children during playtimes in the classroom, even in non-pandemic moments, it will be interesting just to compare the experiences children have during playtime. In addition, meta-analysis of international research conducted during the pandemic could offer valuable cross-cultural insights into children's adaptive play behaviors. Future studies may also explore how children's play preferences and interaction styles, as observed in this study, evolve across different developmental stages. Such studies could contribute to a deeper understanding of how early play experiences influences children's early learning environments.

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