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The Importance of Intentional Outdoor Play Spaces for Young Children

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Abstract

The purpose of this study was to observe outdoor play in infants and toddlers and examine their traffic patterns throughout the play space as well as their interests in the areas. It was hypothesized that the more intention and careful consideration that goes into planning the play space, the more the children would want to interact with that space rather than other areas. There were 58 participants recruited from a childcare center in a large mid-south community to play and interact with play spaces as well as the educators and peers to learn more about specific interests and patterns associated with outdoor play in young children. The results of this study displayed that children are far more likely to interact with play spaces if there are materials in the area and if those materials are easily age-appropriate and accessible. Play spaces that had little to no materials had little to no interactions, making them seem unappealing to infants and toddlers. Young children chose outdoor play spaces that had accessible and intriguing materials versus spaces with minimal materials.

Keywords: infants and children, outdoor play space, intentional

Introduction

Play is a vital part of a child's development, especially in their physical, emotional, cognitive, and social development (Mcilroy, 2022). According to the Oxford English Dictionary, play can be described as a child engaging in an activity solely for their enjoyment instead of for a serious purpose (2022). Children are constantly learning through all types of play. Sometimes play is adult instructed and other times it is independent or spontaneous.

They need the opportunity to play in all types of environments, including outdoors. Children play and learn in their outdoor environment just as they do in their indoor classroom (Undiyaundeye, 2013), whether that is through solitary play, parallel play, constructive play, or dramatic play. This is a time for children to let their imaginations run wild and their curious minds discover new things. There is a plethora of benefits that come with children playing outside, including cognitive, physical, and socioemotional (Lockwood, 2020).

Outdoor play spaces, just like indoor classrooms need to be created with intention and careful consideration for the children's ages, interests, and accessibility (Head Start, 2019). One of the ways educators do this is through careful observations of the children in the spaces, which allows them to learn more about the spaces and interests of the children.

Review of the Literature

With the growing number of children under the age of three attending childcare programs, it is essential for educators to understand how to best support children's development and learning. One of the National Association for the Education of Young Children (NAEYC) core goals is for educators to base their "work on knowledge of how children develop and learn" (NAEYC, 2011, p. 1). In other words, intentional educators know how to cultivate all environments, both emotional and physical to best support children's development and learning.

Children who attend early childcare programs have three teachers: 1) their parents or caregivers, 2) classroom educators, and 3) the environment (Biermeier, 2015).

Often, when hearing about learning environments, the indoor classroom comes to mind, however, environments, whether inside or outside, are learning spaces for young children. The environment is a setting that is designed to be functional for young children and reflective of their learning (Biermeier, 2015). Because outdoor play has been recognized more and more as a key aspect of a child's development, it is essential for educators to understand that outdoor play spaces are just as important as indoor classrooms (Biermeier, 2015). The outdoor play spaces need to be created with intention and careful consideration for the children's ages, interests, and accessibility (Head Start, 2019). Educators need to take time to observe their young students on the playground and have conversations, if possible, to fully understand them and their desires and needs. Children learn through play because it helps them make sense of the world around them (Undiyaundeye, 2013). According to Biermeier (2015), the factor that aids and ignites learning is the children's relationships with their parents/caregivers, educators, and the environment—including the outdoor environment. Outdoor experiences allow educators to extend the curriculum and "present a new world of sights, sounds, smells, and tactile experiences" (Thigpen, 2007, p. 19) that are not available indoors.

Benefits

Research has shown that children who spend time outside are happier, healthier, and stronger (Head Start, 2022). There are many benefits related to outdoor learning. Children can try new skills, such as exploring a new and natural environment, taking risks, and building confidence (Smeddy, 2022). The children get to expend their energy and engage their curious minds while getting fresh air and exercise (Johnson et al., 2017). According to Lockwood

(2020), outdoor play invites children to engage in active physical activities, such as running and jumping. These activities reduce the chance of a child becoming obese, therefore also reducing health concerns that are commonly associated with being obese (Lockwood, 2020).

Children need daily opportunities for physical play and rest. Spontaneous physical play throughout the day helps children expend energy, therefore they sleep better at night, which increases concentration and mood for the next day (Lockwood, 2020). Adequate rest allows for optimal cognitive development and learning (Healthy Sleep, n.d.).

Playing outside also allows children to be with their peers and work on their problem-solving and social skills in a setting other than the indoor classroom. Through play, infants and toddlers mature emotionally and gain the self-confidence needed to explore and engage in new experiences and environments (Undiyaundeye, 2013).

Importance of Intentional Spaces

According to Biermeier (2015), the environment is a setting designed to be functional for young children and a reflection of their learning. Intentional spaces are designed based on the children's abilities and interests. The spaces cater to each of the child's interests. They will learn best when in an environment suited for them.

Just as indoor classrooms, when outdoor spaces are intentionally created, the learning that occurs is as deliberate and logical as any teacher-directed lesson, yet the activities are offered in a manner that is appropriate to the development of each child (Leong & Bodrova, 2012). In order for teachers to be intentional with their designs, they need to have knowledge of child development and use their knowledge and judgment to guide decisions. Good outdoor play spaces are composed of a plethora of things, such as safe and engaging areas to explore,

accommodations for different needs, skills, and interests of young children, the ability to encourage adult-child interactions, including nature and plant life, etc. (Head Start, 2019).

Methods

The current study was conducted by using pictures and written notes to discover whether there were particular spaces that children gravitate to at the childcare center infant and toddler playground. Traffic patterns were able to be tracked as well as infants' and toddlers' interests on the playground. For this research study, the playground was divided into eleven focus areas. Below are pictures and descriptions of each focal area.

Figure 1-*Turf Area*

The turf area is located on the south section of the infant and toddler playground. This area is covered with soft turf, making it especially appealing to immobile infant and toddler-age children. There is a smaller house with a slide and an arched structure with spinning toys on the sides that children used as climbers. There is a ball pit as well that children used to work on throwing, kicking, etc.

Figure 2- *Ride-on-Toy*s

The ride-on toys are all parked in a corner on the southwest corner of the infant and toddler playground. This area includes tricycles, a rocking horse, and cars, along with helmets that need to be worn when riding the tricycles.

Figure 3- *Swings*

Next to the ride-on toys, there are two tire swings. The bottom is enclosed, allowing the children a surface to place their feet.

Figure 4- *Rocks*

The rock area is located on the west side of the infant and toddler playground. This area has the most rocks that are available for activities such as digging. Buckets, bottles, shovels, strainers, etc. were all included for the children to use. This area is right next to the preschool playground.

Figure 5- *Water Table*

The sensory table is located in between the swings and the rock area. It is a two-level sensory table with two different heights so all ages can use it. Children often take buckets, bottles, shovels, and strainers from the rock area to the sensory table.

Figure 6- *Climber Slide*

On the northwest corner of the infant and toddler playground, there is a larger structure with climbing ramps on three sides and a slide on the fourth side. Each climbing side was a little different, including a ramp, a set of stairs, and a rock wall.

Figure 7 – *Double Slides*

On the north side of the playground, opposite the turf area, there is a set of double slides. This is a structure where children can go down slides side-by-side, at the same time.

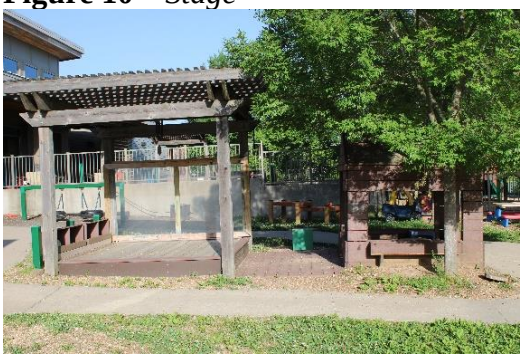
Figure 8-*Kitchen in Pergola*

Next to the double slides, in the northeast corner of the infant and toddler playground, there are some kitchen sinks and benches under a pergola. Windchimes hang from the pergola.

Figure 9-*Grass Area*

On the east side of the infant and toddler playground, there is a large grass area. There are two large sandboxes in the middle of the area, some other sinks and kitchen structures, and wood stumps.

Figure 10 – *Stage*



In the center of the playground, there is a stage. It has cubbies on one side for toys and plexiglass on another side.

Figure 11- *House*

Connected to the stage, in the center of the playground, is the house. It has two openings that act as doorways, large windows on either side and flower boxes underneath the window openings.

Sample Population

The participants in this study were 58 children ages 9 months to 3 years old who were enrolled in a child study center in a large mid-south community. This included 19 infants aged 12 months and under, 17 young toddlers ages 12 months to 24 months, and 22 older toddlers aged 2 to 3-year-olds.

Procedures

Once the study was approved by the Institutional Review Board (IRB), invitations to participate in the study were sent via email to the guardians of the infants and toddlers enrolled at the childcare center. This email contained information about the study and consent forms.

After these materials were sent out, a table was set up with printouts of each document at the childcare center. Families were able to spend a few minutes talking to the researcher to gain

an understanding of the research and the purpose of the study. Parents seemed more inclined to give consent after meeting and visiting with the researcher.

Observations of playground use were conducted over eight different Tuesday mornings from 8:00 am-12:00 pm between June 7, 2022, and August 2, 2022, on the infant and toddler playground at the childcare center. During this time, observations included typed notes and pictures of the children on the playground. It was noted each time children were in one of the eleven focal areas. No data was collected on non-participating children. After the collection period, data was interpreted, and findings were drawn.

Table 1-*Scheduled Dates and Times of Each Classroom's Playground Time*

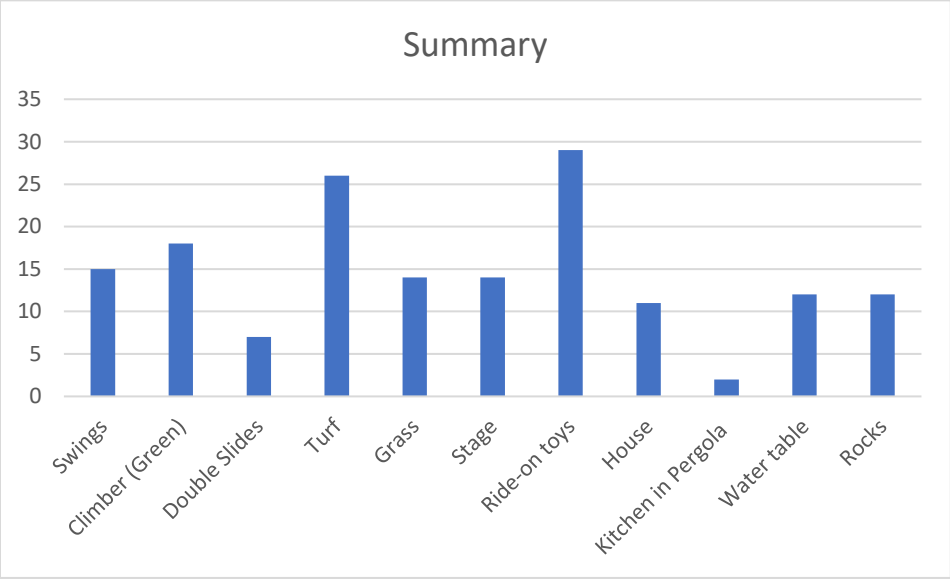
Classroom Numbers	Infants 1	Infants 2	Young Toddlers 1	Young Toddler 2	Older Toddler (1)	Older Toddler (2)	Infants 3
Scheduled Time	8:00-8:30	8:30-9:00	9:15-10:00	10:00-10:40	10:40-11:20	11:20-12:00	12:00-2:30
Dates							
7-Jun	1	0	1	1	1	1	0
14-Jun	1	0	1	0	1	0	0
21-Jun	0	1	1	1	1	1	0
28-Jun	1	0	1	1	1	0	0
5-Jul	1	0	1	1	0	0	0
12-Jul	1	0	1	1	0	1	0
19-Jul	0	0	1	0	0	0	0
2-Aug	1	1	1	1	1	1	0
Total	**6**	**2**	**8**	**6**	**5**	**4**	**0**

Main Findings

Data was collected on eight Tuesdays between the dates of June 7, 2022, and August 2, 2022. During the data collection period, a majority of the classrooms did not utilize the playground space during their scheduled times (refer to Table 1). There was variability in the infant classroom's participation during the observation periods; present six, two, and zero

periods. Out of eight possible observation periods, one young toddler classroom was present for all eight, while the other young toddler classroom was present for six. One older toddler classroom was present for five observation periods, while the other older toddler classroom was present for four observation periods.

Figure 12-*Total Number of Times Each Focal Area was Chosen*



The most chosen focal area on the infant and toddler playground was the ride-on toys (as shown in Figure 12). This area was chosen 29 times out of a total of 160, meaning it was chosen 18.1% of the time. The ride-on toys were stationed on the southwest corner of the infant and toddler playground; however, they were moved all over the playground, much of the time. Children would ride and or push cars around the concrete path and also to other focal areas of the playgrounds. The ride-on toys were versatile and could be used in more than one area. Sometimes one child would push the car while another child rode inside the car.

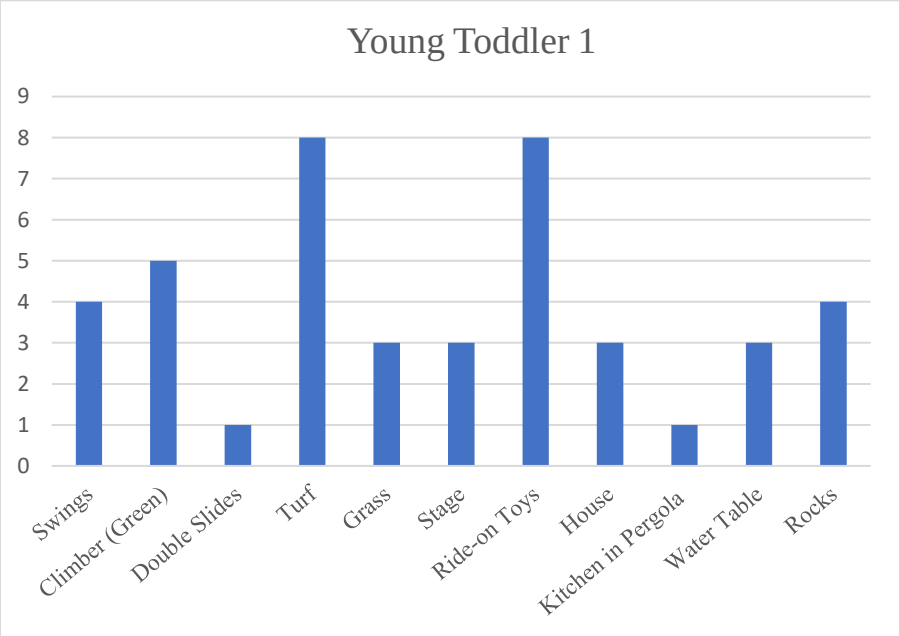
The ride-on toys were not always used for riding or pushing. On one observation day, the children washed the cars with sponges, soap, and water. On other days children were observed

using the cars to help pull themselves to a standing position and also opening and closing the doors while sitting beside the cars.

The focal area that was chosen the least on the infant and toddler playground was the kitchen in the pergola. This space was chosen two times out of the total 160, meaning it was chosen 1.2% of the time. The kitchen is located on the northwest corner of the playground. The area consists of double sinks, two benches, and a magnetic board. The magnetic board is directly in front of the sinks, secured to the wooden fence, and extends past each side of the sinks.

Once data was analyzed for the overall total of the most and least chosen focal spaces, it was further analyzed for each classroom.

Figure 13-*Number of Times Young Toddler 1 Chose Each Focal Area*

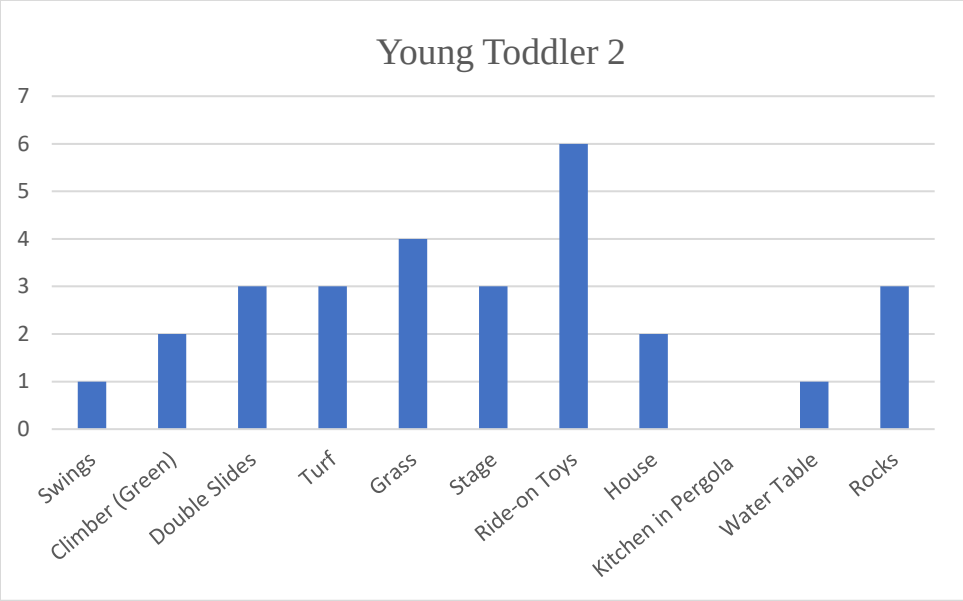


Young Toddler 1 classroom chose the ride-on toys and turf focal areas most frequently (refer to Figure 13). Out of the 43 times a focal area was chosen the ride-on toys and turf areas were both chosen eight times, meaning these areas were chosen 18.6% of the time by the children of Young Toddler 1. The children enrolled in this classroom were young toddlers,

ranging in ages 12 months to 24 months. Young Toddler 1 was the only classroom to go on the playground during all eight observation periods.

Out of the 43 times focal areas were chosen, Young Toddler 1 chose the double slide and the kitchen the least number of times. Both focal areas were chosen one time each, meaning the areas were chosen 2.3% of the time by the children of Young Toddler 1.

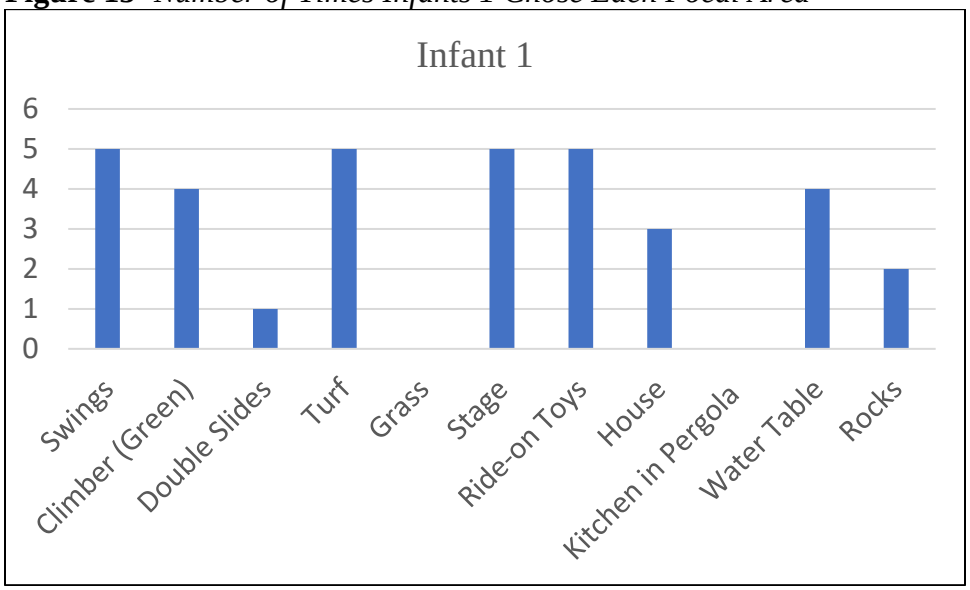
Figure 14-*Number of Times Young Toddler 2 Chose Each Focal Area*



The most frequently chosen focal area for the Young Toddler 2 classroom was the ride-on toys as shown in Figure 14. Out of the 28 times a focal area was chosen, the ride-on toys were chosen six times, meaning they were chosen 21.4% of the time by the children of Young Toddler 2. The children enrolled in this classroom were young toddlers, ranging in ages 12 months to 24 months. Young Toddler 2 was present for six of the eight observation periods.

Out of the 28 times focal areas were chosen, the children of Young Toddler 2 chose the kitchen the least number of times. This focal area was not chosen at all, meaning the area was chosen 0.0% of the time by the children of Young Toddler 2.

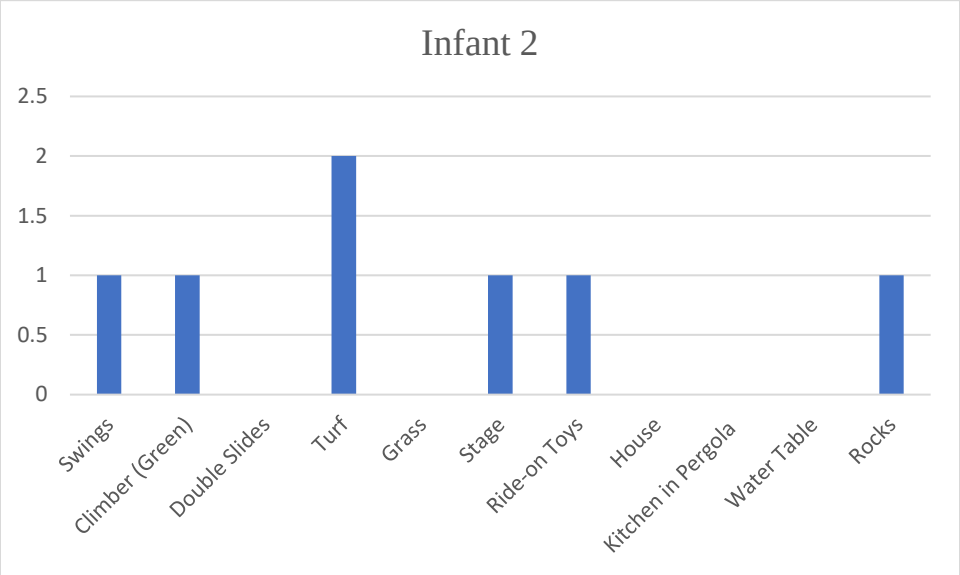
Figure 15- *Number of Times Infants 1 Chose Each Focal Area*



Infant 1 classroom chose the ride-on toys, swings, turf, and stage focal areas most frequently (refer to Figure 15). Out of the 34 times a focal area was chosen the ride-on toys, swings, turf areas, and stage were all chosen five times, meaning these areas were chosen 14.7% of the time by the children of Infant 1. The children enrolled in this classroom were infants aged 12 months and under. Infant 1 was present for six of the eight observation periods. All the areas chosen by this classroom are located on the central and west side of the playground.

Out of the 34 times focal areas were chosen, Infant 1 classroom chose the kitchen and grass the least number of times. Neither focal area was chosen at all, meaning the areas were chosen 0.0% of the time by the children of Infant 1.

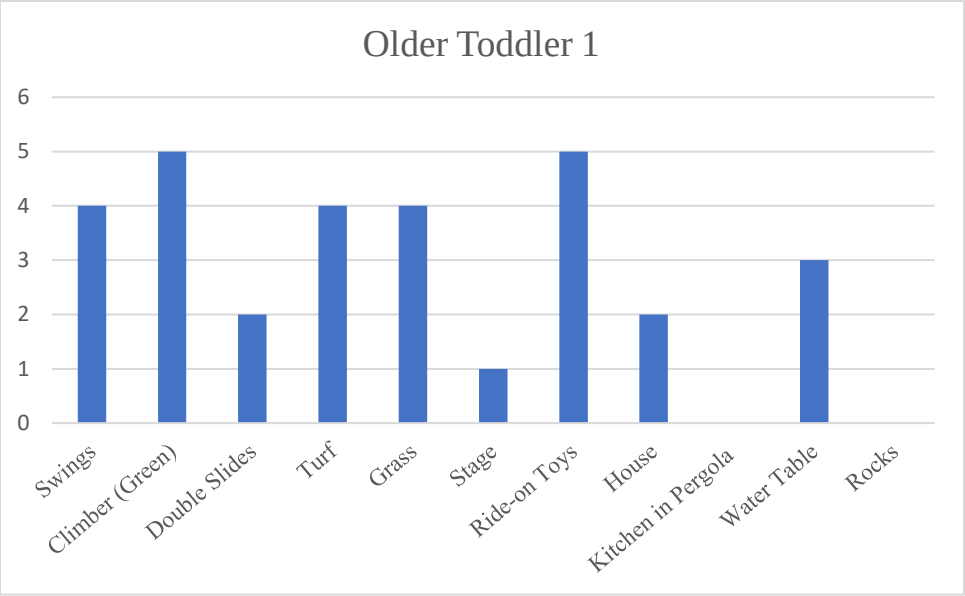
Figure 16- *Number of Times Infants 2 Chose Each Focal Area*



The most frequently chosen focal area for the Infant 2 classroom was the turf (refer to Figure 16). Out of the 7 times a focal area was chosen, the turf was chosen two times, meaning they were chosen 28.6% of the time by the children of Infant 2. The children enrolled in this classroom were infants, aged 12 months and under. Infant 2 classroom was present for two of the eight observation periods.

Out of the 7 times focal areas were chosen, the Infant 2 classroom chose the kitchen, double slides, house, water table, and grass the least number of times. None of these focal areas were chosen at all, meaning the areas were chosen 0.0% of the time by the children of Infant 2.

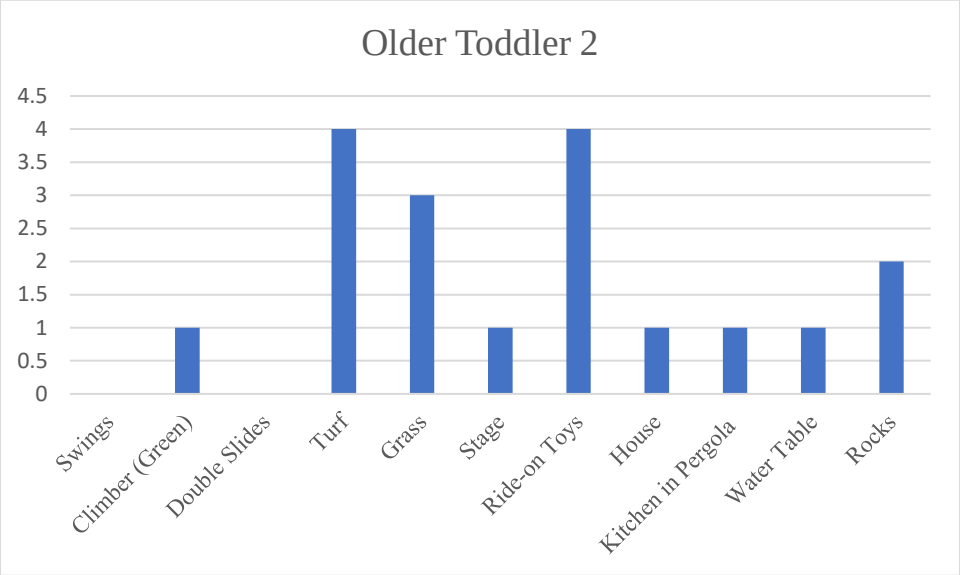
Figure 17- *Number of Times Older Toddler 1 Chose Each Focal Area*



Older toddler 1 classroom chose the climber (green) and the ride-on toys focal areas most frequently as shown in Figure 17. Out of the 30 times a focal area was chosen the climber (green) and ride-on toys were both chosen five times, meaning these areas were chosen 16.7% of the time by the children of Older Toddler 1. The children enrolled in this classroom were between two- and three-years old. Older Toddler 1 was present on the playground during five of the eight observation periods.

Out of the 30 times focal areas were chosen, Older Toddler 1 chose the kitchen and rocks the least number of times. Neither focal area was chosen at all, meaning the areas were chosen 0.0% of the time by the children of Older Toddler 1.

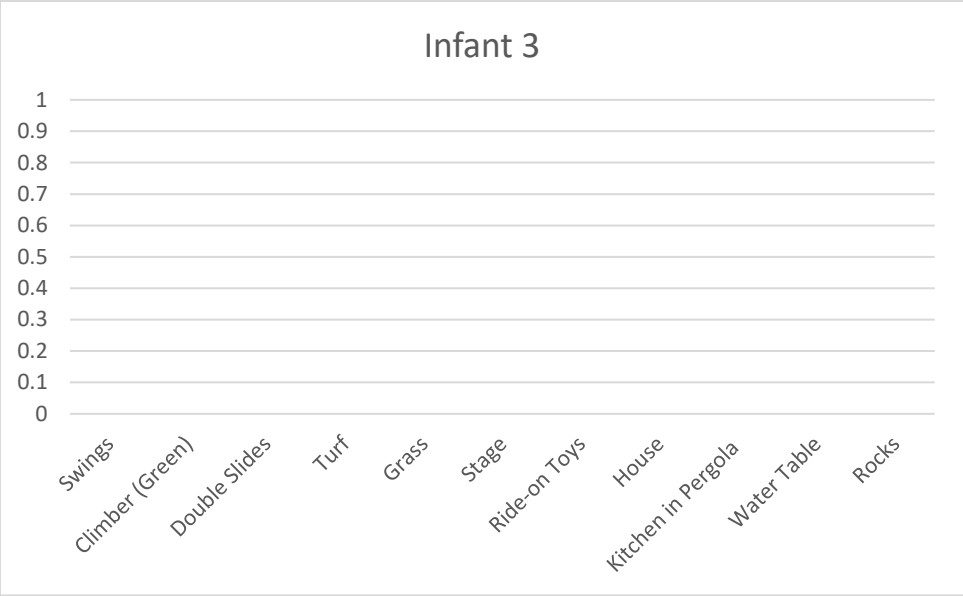
Figure 18- *Number of Times Older Toddler 2 Chose Each Focal Area*



Older Toddler 2 Classroom chose the ride-on toys and turf focal areas most frequently as shown in Figure 18. Out of the 18 times a focal area was chosen the ride-on toys and turf areas were both chosen four times, meaning these areas were chosen 22.2% of the time by the children of Older Toddler 2. The children enrolled in this classroom were between the ages of two and three years old. Older Toddler 2 was present on the playground during four observation periods.

Out of the 18 times focal areas were chosen, Older Toddler 2 chose the double slides and the kitchen the least number of times. Neither focal area was chosen at all, meaning the areas were chosen 0.0% of the time by the children of Older Toddler 2.

Figure 19- *Number of Times Infants 3 Chose Each Focal Area*



Lastly, Infant 3 classroom was not present for any of the scheduled observation periods (refer to Figure 19). No data was collected. The children of this classroom were under 12 months of age.

Discussion and Conclusion

Overall, the infants and toddlers who participated in this study chose the ride-on toys focal area more than any of the other focal areas. The ride-on toys are easily accessible and could be utilized in multiple ways. The second most utilized area was the turf area. This area is located adjacent to the ride-on toys area. No natural ground cover exists in these two areas, and they are close to the entrances and exits of the playground.

The focal area chosen the least number of times was the kitchen area. This area is located on the northeast corner of the playground. It was accessed twice during the observation periods. This area does not have any materials for the children to use as props for play. It is also at the opposite end of the playground from the turf and ride-on toy areas.

The study found that the two infant classrooms observed during the study did not touch the grass during observation periods. The children of these classrooms traveled the central

(stage) and west side focal areas of the playground. One infant classroom was not present for any of the observation periods. This classroom was scheduled for the most time on the playground, however, scheduled times were from 12:00 pm to 2:00 pm, which was the hottest time of day during the observation periods.

As stated earlier, the kitchen area was chosen the least number of times by the infants and toddlers. It was also the area with the least number of materials and adult presence. The lack of materials and adult presence made this space feel unimportant. After the completion of the study, the researcher donated "kitchen" items to the center for the teachers to create a more intentional kitchen area for the children. If the kitchen space has purposeful and accessible materials for the children, future research may be able to assess whether children utilize this space more.

Educators can use observations, such as the one done for this study to better understand the traffic patterns of children. Through observations and reflections, educators can learn about the children, the space, and themselves. What is working and what is not working regarding intentional spaces, are important questions educators should revisit often.

The childcare center from which this data was collected is currently in the process of renovating its outdoor play spaces. The data collected during the research study is being used by the administrative and playground design teams. It is being used to help create an intentional space that will be in alignment with children's choices and developmental stages.

Limitations

This study was conducted during the summer months of June, July, and August. These were some of the hottest months of the year (Rosenthal & Patel, 2022). This caused some classrooms to not be able to go outside during the scheduled observation periods, leading to little

to no data being collected for some classrooms. This also led to less data being collected than anticipated and fewer participants, causing a decrease in sample size.

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