Design for Playgrounds to Trigger Parent-Child Interaction

Outdoor Children’s Playground in Daan Forest Park

Ju-Ting Yang¹  Meng-Cong Zheng²
1) Master Degree Student, Department of Industrial Design, National Taipei University of Technology
2) Assistant Professor, Department of Industrial Design, National Taipei University of Technology

Introduction

According to Wu’s research (2006), 72.9% of the families in Taiwan are nuclear family. The low birth rate shows that there is more single child in families nowadays. Children are born and raised in their family, which make families one of the most important cultural environments. Parents introduce the society to their children and they take the responsibility to guide their children to be socialized and to be fully developed.

The research shows that comparing to children with insecure attachment, children with secure attachment have better social ability and they have fewer problems in their behavior. They are more close to their friends and siblings. (Teti&Ablad. 1989;Fagot&Kavanagh. 1990) So to say, whether a child could grow up properly depends on their relationship with their parents. To preschoolers, play time is the most important part during the day. It’s the main source to stimulate children’s development. Taylor (1991) pointed out that playing activities are helpful for children to learn problem solving, to increase their will for social participation and to develop their creativity.

Method

Daan Forest Park is located near the metropolitan area of Taipei City. This research takes the children playing area on the northeast side of the park as the research site. The playing area is located near the public underground parking lot and the exit of the MRT station. The playing area is attended by users from all districts of Taipei city, which makes it more suitable to be the research site.

Non-participant observation was employed to record the data in this study. The observation on each exit of the children playing area in Daan Forest Park took place from 8 a.m. to 5 p.m. on December 6th, 2013. The number of people that entered the area was recorded and the subjects for observation were selected by proportion of the number. Thirteen pair of parents and their children had been observed in this study. The samples’ behavioral patterns were videotaped. The focus points are: the talks between the parents and children, eye contact and physical contact. This research divided the number of times played with one item by the total amount of time this item was played with and the number received is the frequency of this item being played with. After calculating the numbers from every playground item, the result numbers will be referenced for further discussion and conclusion. The relationship between games and social development of preschoolers (age 3-6) is mainly based on peer interaction (Wu, 2003). Based on the growth curve of children in Taiwan (published by Health Promotion Administration, Ministry of Health and Welfare in 2009), the height of children 3-6 years old is approximately 96-110 centimeters. Due to this reason, this research observed children at this range of height.

Results

This research examined five points to investigate parent-child interaction:

The presented research discovered that children spent more time in playing areas allowing circular play, for example: paths, ground and stairs. Due to the fact, it’s clear that the connection and circulation between pieces of facilities are important factors in the design for playgrounds. Also, Mitsuru Senda’s research (1982) suggested applying circular design in playground facilities.

During the research, parent-child interaction happened mostly in the resting area. When parents stayed in the resting area, children went to them to talk or to drink water. This shows that even though the resting area was set up for children and parents to relax, it became a popular place to have parent-child interaction. It’s easy to reckon that providing some space for parents to stop and stay has a positive effect on parent-child interaction. While the children were playing on the slides or other facilities without shielding around, most parents watched their children from the resting area where they were
standing or sitting inside. If their children went into paths which are narrow, long and the covers block the parents’ sights, the parents would have no choice but follow their children.

The resting areas are often placed outside the playing area. This is why children were often making sure where their parents were. Since the paths are mostly shielded, parents weren’t able to spot their children immediately. In other areas such as swings, spring riders or sandboxes, few of them tried to search for each other. Because the climber and balance beam require are movable, children might feel unsafe and have difficulties in operation during the process. The climber provides some parts for children to grab or hold on to, so children were more willing to try again after they encountered difficulties. But the balance beam is shaky, most children were too afraid to try. In this research, the rough path and balance beam were both in the composite game facility which allows the parents to have enough space to accompany their child and guide them when they needed help.

Discussion

When children operate the facilities incorrectly, there might be safety issues if their parents weren’t around. In this research, the top two misused facilities are the curving slide and the spring ride. The spring ride usually located in front of a clear space so this facility is not at all shielded, which let the parents felt that they didn’t have the need to follow their children but stay in the resting area and watch. The curving slide is the most commonly used facility. This facility is more shielded and the slide is vertical and curvy, so the parents’ sight couldn’t reach the end from the entrance which is why more parents followed their children to look after them.

In the 13 pairs of samples there are 5 pairs that are grandparents and grandchildren. These grandparents tended to follow their grandchildren while they ran around the playground. For this reason, the design of the facilities should also take consideration of the elderly’s physical strength. Also the height should be calculated for them to walk with their body straight-up. The shortcuts could be designed to adult-height for the elderly to move their way through the playground more rapidly. Throughout the research, we also found that children take the fences on the path as their resting area to observe other children or to interact with their parents. Also, the open or transparent area on the wall of the path too, increases the chances of interaction between children and parents.

Conclusions and Suggestions

The design of a playground should not only allow children to play freely but also make the parents feel at ease. This research made some suggestions for children’s playground designs in the future:

1. The importance of circular design: Devices like paths, ground and stairs should be able to attract children to get on, also to play freely and unconstrainedly. Circular design should be valued more.
2. The setting of the resting area: The location of the resting area should be based on how to let the parents have a clear sight to check on their children without feeling the need to follow them all around the playground.
3. Decrease the shielding of facilities: The design for the shielding of the facilities should be discontinuous so that parents won’t have to search for their children too often.
4. The setting of shortcuts: Shortcuts are often made for children, but for the parents to follow their children, the design of the shortcuts should be some amount of width and height in order to move to other playing area more conveniently.

References


Figure 1. Taipei Daan Forest Park showing location of playing facilities.