This version of the proceeding paper has been accepted for publication, after peer review (when applicable) and is subject to Springer Nature's AM terms of use (https://www.springernature.com/gp/open-research/policies/accepted-manuscript-terms), but is not the Version of Record and does not reflect post-acceptance improvements, or any corrections. The Version of Record is available online at: http://dx.doi.org/10.1007/978-3-319-94199-8_25.

The Needs of Children and Their Caregivers in New Urban Lifestyles: A Case Study of Playground Facilities in Hong Kong

Kin Wai Michael Siu^{1,*}, Yi Lin Wong¹, Mei Seung Lam²

¹ School of Design, The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong

* m.siu@polyu.edu.hk, yi-lin.wong@polyu.edu.hk

Department of Early Childhood Education, The Education University of Hong Kong, Tai

Po, New Territories, Hong Kong

mlam@ied.edu.hk

Abstract. With an increasing number of working couples and a growing elderly population, young children are often taken care of by their grandparents or housemaids from the Philippines and Indonesia. The interaction between children and caregivers has thus changed to accommodate urban life. Yet public facilities for children have not kept pace with contemporary demands. Facilities for children, including playgrounds, have failed to respond to the everyday life of children and caregivers. Taking playground as a case study, this paper examines the mismatch between current playground design and the urban lifestyles of caregivers and children in Hong Kong.

Keywords: Design standards · Playground · Public facility · Urban lifestyle

1 Introduction

Urban lifestyles have transformed tremendously due to rapid changes in social structures and technological advancement. The way children are raised in a family and the nature of the parent-child relationship have also changed. In a traditional Chinese family, a married woman stays at home as a housewife to take care of her children and her or her husband's parents. She also plays with and teaches her children at home or spends a lot of time accompanying them outside of the home. Children who are raised in families of lower socioeconomic status often play with other similar-age peers without being accompanied by adults. However, because of the increased financial demands associated with raising children and taking care of the elderly nowadays, married women often need to enter the workforce to help shoulder the financial burden carried by their husbands. The status of working women in society has also improved and many women have their own careers and are keen to climb the career ladder for reasons beyond financial motivation. Where this is the case, many parents employ housemaids from the Philippines and Indonesia to take care of the elderly and children at home as well as do the housework. Yet, the housemaids are not just care-

takers of children and the elderly. They are also, by proxy, the employees of the children and elderly and have to obey them accordingly. Simultaneously, the elderly grandparents are also caretakers of children. The relationship between the elderly grandparents, children, and housemaids may thus be complex and dynamic.

Parents can only play with children on weekends because they are busy during weekdays. The time that parents can spend with their children is limited compared with that in prior decades. The status of children in a family has become more important than ever, and a strong emphasis has been put on the development of children in different respects, including through playing. Many parents and caregivers would not leave children out of sight in public areas. However, the current design of public facilities has often neglected this need. Facilities for children, such as playgrounds, have failed to respond to the everyday life of playground users.

Taking playgrounds as a case study, this paper examines the mismatch between current playground design and the urban lifestyles of caregivers and children in Hong Kong. Play is an important business for children [1], and it is the essence of children's culture to play [2]. Playground is a designed place for children to develop their problem-solving skills and emotional intelligence [3]. As children need to play, and caregivers often bring children to public playgrounds to play and enjoy their leisure time because of limited space at home, public playgrounds for children are an important place where the interaction between caregivers and children occurs. It is thus important to study and understand how mismatches arise vis-à-vis the demands and requirements of users and the actualities of these spaces.

2 Method

2.1 Public Playgrounds in Hong Kong: A Descriptive Overview

Currently, Hong Kong has 634 public playgrounds for children managed by the Leisure and Cultural Services Department (LCSD). These playgrounds are equipped with play facilities including slides, swings, and climbing frames. Around 36% of the playgrounds have swings, which are the most popular play facility [4]. Other play facilities are composite play structures whereby two or more such facilities are attached or functionally linked (Fig. 1). Swings are the only play facility which are not attached to any other play facility [5].

Playground size varies depending on the district. Some large playgrounds, for example, the playground in the Hong Kong Park, are equipped with swings, different types of slides, climbing frames, and different kinds of thematic composite play structures such as a flying saucer, space station, and adventurescape [6]. Some playgrounds are small and only contain a simple slide and climbing staircase. The total area of public playgrounds per child also varies considerably across districts. The average area of public playgrounds per child ranges from 0.16m² in the Kwai Tsing district to 0.55m² in the Central and Western district [5].





Fig. 1a-b. Example of a composite play structure (left) and swings (right) in two Hong Kong public playgrounds (photographs by authors)

2.2 Sample Playgrounds



Fig. 2. Location of Quarry Bay Park and Aldrich Bay Park

Two typical playgrounds in the Eastern District, Quarry Bay Park Playground and Aldrich Bay Playground, were visited (Fig. 2). The playgrounds occupy 1,535m² and 584 m², respectively, and both are located in a coastal area adjacent to residential buildings. The Quarry Bay Park Playground is next to a private residential development, and the Aldrich Bay Playground is next to both private and governmental residential areas. Residents of these areas can enter the playgrounds easily, and both playgrounds are very popular. Playgrounds in the Eastern district were chosen because the average area of public playgrounds per child in the district is 0.21m², thus indicating that the playgrounds would not be too crowded or too empty. Figs. 3 and 4 present aerial views of the two sample playgrounds.

Two late afternoons in a winter weekend were spent at the playgrounds to study the behaviors and interactions of children and their caregivers. The most popular period, i.e., 4pm to 6pm, was chosen for the investigation. Photos were taken at the sites. The

observer, i.e., the researcher, did not conduct any interviews so that the caretakers and the children at play were not unduly influenced.



Fig. 3. Aerial view of Quarry Bay Park (extracted from Google Maps)



Fig. 4. Aerial view of Aldrich Bay Park (extracted from Google Maps)

These two playgrounds consist of various composite play structures (including slides and climbing frames), swings, rocking chairs, and sensory play structures. Different play facilities are designed to appeal to 2-5 and 5-12 year old children. Inclusive play facilities were also present at Quarry Bay Park Playground.

3 Findings and Discussion

3.1 Children's Behavior and Facilities Provision

Children were playing happily and actively in the playgrounds. Most of the children played on the composite play structures and the swings. They did not appear to be scared of heights and tried to climb high on the climbing frames. They were also not scared of the planned imbalance created at some play facilities (Fig. 5a). They enjoyed the challenges.

However, some younger children below 5 years old also played on the play structures which were designed for 5-12 year olds. These children feared heights and the imbalance play structure. It can be argued that play facilities for the younger children were inadequate in both playgrounds leading them to use play facilities which were not designed for them. These children were also unable to gather together to play, as there were no empty spaces for them to congregate, and their parents did not sense the need to facilitate play with peers of the same or similar ages.

Some children ran around the play facilities and the limited empty spaces in the playgrounds. Some of them played hide-and-seek and policeman-thief role playing games. A few of them ran to the area containing fitness facilities designed for the elderly (Fig. 5b). This observation also suggested that the available empty spaces for children to run around and congregate in were inadequate. Most of the children were playing together, although they may not have known each other previously.





Fig. 5a-b. Children at play in and outside playgrounds (photographs by authors)

3.2 Caregivers' Behavior and Facility Provision





Fig. 6a-b. Activities of caregivers in playgrounds (photographs by authors)

The behaviors of caregivers varied. Some caregivers were standing or sitting nearby watching their children play (Fig. 6a). Some were using their mobile phones and did not watch their children at all. Some of them were leaning against or sitting on the play facilities. Some parents were accompanying both the elderly and children in the playground and had a stroll with the former whilst the latter were playing (Fig. 6b). Unsurprisingly, there were no specific facilities designed for adults in these children's playgrounds.

Seating areas were provided next to the playgrounds, but the areas were far away from the play facilities (Fig. 7a and 7b). Caregivers can only watch the children from a distance. Other caregivers who were looking after infants were also standing or sitting in this area. Some of them left their belongings in the seating areas or next to

planted areas and stayed with the children in the playgrounds, while others would leave their belongings with the housemaids.





Fig. 7a-b. Seating areas next to the playgrounds (photographs by authors)

In most cases, two caregivers were present to accompany one child in the playgrounds. One of them was responsible for taking care of belongings while the other looked after the children. The number of adults exceeded the number of children in both playgrounds. Both playgrounds were busy and fully occupied.

3.3 Interactions between Children and Caregivers

It was interesting to investigate the interaction between children and their caregivers. Aside from merely watching their children playing, parents tended to talk to their children very often. For instance, in Fig. 8a, parents are telling their children to be careful on the composite play structure. In Fig. 8b, the parent is encouraging the boy to be braver while walking on the play facility. In general, parents would give instructions to their children on how to play. They would also remind the children to be safe and careful and give encouragement to them. Table 1 summarizes the instructions and guidance that parents gave to children in the playgrounds.

Further, parents also provided physical help to children at play. Some of the help facilitated the development of parent-child relationships, including trust-building. For instance, some parents helped their children to play on the swings, as some were not tall enough to easily master this apparatus because their legs were unable to touch the ground. However, some parents hindered children from enjoying the freedom of play and stopped them from facing developmental challenges at play. For instance, some parents would hold the child's body when they were climbing up or jumping off the ground. Thus, it can be argued that sometimes children were overprotected in the playgrounds.





Fig. 8a-b. Interaction between caregivers and children (photographs by authors)

Table 1. Instructions and guidance that parents gave to their children in playgrounds.

Туре	Example statements (translated from Cantonese)
Safety issue	"Don't run too fast."
•	"Don't climb too high."
	"Don't get close to the slides."
	"Be careful not to knock others off."
Play instruction	"You can slide down now."
	"Climb on this climbing frame."
	"You can't walk up the slide."
	"Don't use your hands."
Encouragement	"Yes! Keep at it!"
	"You can do it! Keep going!"
	"Don't be afraid."

3.4 Mismatch between playground facilities and the new urban lifestyle

Due to the nature of new urban lifestyles, caregivers, especially parents, only tend to be able to accompany children and play with them in public playgrounds on weekends. Playgrounds have become a place not only for children to play but also for parents and children to spend time together. In other words, play facilities should also cater for the needs of caregivers. Currently available play facilities are unable to cater for these needs and thus do not match the requirements of new urban lifestyles. The mismatch between facilities and lifestyles has caused inappropriate use of existing facilities. Based on the findings and discussion above, the issues associated with current playgrounds are summarized below.

No facilities designed for caregivers. In the context of new urban lifestyles, caregivers have to take care of children in playgrounds and thus need to remain close to them. However, the current design of playgrounds does not provide any spaces or areas for this purpose. There are also no facilities for resting or storing personal belongings. These inadequacies have resulted in caregivers occupying play facilities, and in some cases, leaning on them for physical support, or sitting on them in lieu of alternative places to sit which are close enough to their children. There are also no

facilities specifically designed for caregivers to play with children. Caregivers can only assist children while they are at play (hierarchical play relationship) and cannot be involved in the act of play itself. The possibility of caregivers being play companions is neglected.

Inadequate play facilities for communication. It seems that the only play facility that can nurture the caregiver-child relationship is the swings. Other facilities failed to provide this opportunity. Further, given the observation that communication between caregivers and children is frequent in playgrounds, this communication is also an important concern. However, there are inadequate play facilities facilitating communication between caregivers and children. Indeed, it can also be argued that some of the designs and settings of play facilities hindered effective communication. For instance, the design of the composite play structure in Fig. 8a blocks communication between caregivers and children; the former have to talk loudly to be heard and understood by the latter.

Inadequate spaces for caregiving. Limited land is a well-known issue in Hong Kong. Play facilities are thus often overly demanded and the playgrounds are crowded in Hong Kong urban areas. Empty spaces between play facilities are very limited, and children have inadequate space to play and run around in the playgrounds. Unsurprisingly, caregivers therefore also have limited space to accompany and assist their children. Caregivers often have to stand closely to each other. With so many children running in playgrounds which cover only a limited amount of space, it can be dangerous for caregivers as well as children.

The current play facilities are based on designs imported from the U.S. and Europe, and most of the designs are standardized. These facilities are unable to cater for the needs of contemporary Hong Kong families, and there are no customized play facilities in Hong Kong public playgrounds. This one-design-fits-all approach does not work effectively in Hong Kong because of the characteristics of new urban lifestyles, the specific caregiver-child relationship, and the limited space. The design of play facilities must be reconsidered so that it better meets the demands of new lifestyles and new needs.

Recently, non-governmental organizations concerned with children's play in Hong Kong such as Playright Children's Play Association have been campaigning to allow caregivers and children to be involved in the playground design process [7]. Caregivers and children have to design and construct their preferred playground using different materials including wooden and paper boards, carton boxes, old tires, gym balls and sticks. Such self-designed, self-constructed playgrounds are perhaps the only customized options which currently fulfill the needs of playground users.

4 Conclusions

Because of different societal changes and financial demands, the interactions between children and their caregivers, i.e., housemaids, elders, and parents, have altered. The urban lifestyle has changed in a way that children have become the center of a family, and significant emphasis has been placed on them. Considering that caregivers and children interact not only at home but also in public areas, it is essential to examine whether contemporary public facilities are able to meet the needs of the new urban lifestyles. This paper takes public playgrounds for children as a case study to investigate this issue. Two children's playgrounds located in Hong Kong's Eastern District were visited. It was found that the current play facilities as well as other facilities in the playgrounds did not provide adequate support to caregivers or their communication with children. Space was also very limited which hindered caregivers from taking care of their children in the playgrounds. We conclude that there is an urgent need to revise the current design and standards of playgrounds so that the needs of children and new urban lifestyles can be fulfilled. Indeed, revising the process of design itself, empowering children and caregivers to design the kinds of playgrounds they want to visit and use, is a promising avenue for future research and development.

Acknowledgments. We are grateful to The Hong Kong Polytechnic University for financial and logistical support. The authors also acknowledge the Eric C. Yim Endowed Professorship in Inclusive Design.

References

- 1. Bruner, J.: Play is Serious Business. Psychology Today 8, 83 (1975)
- James, A.: Childhood Identities: Self and Social Relationships in the Experience of the Child. Edinburgh University Press, Edinburgh (1993)
- 3. Brett, A., Moore, R.C., Provenzo, E.F. Jr.: The Complete Playground Book. Syracuse University Press, New York (1993)
- Legislative Council: Official Record of Proceedings (Wednesday, 7 December, 2016). Hong Kong SAR Government, Hong Kong (2016)
- Legislative Council, https://www.legco.gov.hk/research-publications/english/essentials-1718ise04-public-playgrounds-in-hong-kong.htm
- Leisure and Cultural Services Department, http://www.lcsd.gov.hk/en/facilities/facilitieslist/facilities.php?ftid=55&did=1#1098
- 7. Playright Children's Play Association, http://www.playright.org.hk/tc/whatshappening.aspx