



Urban Transitions Conference, Shanghai, September 2016

## Inclusive play in urban cities: A pilot study of the inclusive playgrounds in Hong Kong

Kin Wai Michael Siu<sup>a,\*</sup>, Yi Lin Wong<sup>a</sup>, Mei Seung Lam<sup>b</sup>

<sup>a</sup>The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

<sup>b</sup>The Education University of Hong Kong, 10 Lo Ping Road, Tai Po, New Territories, Hong Kong

---

### Abstract

Public play spaces are designed for children to develop their social and physical abilities and enrich their experience. Through play, children can learn various cognitive skills in a relaxing environment. All children should have the same right to play in play spaces. However, many existing playgrounds lack inclusive facilities to facilitate the needs of the disabled children. This paper takes Hong Kong as a case study. In our preliminary observation there is no disabled children playing or even appeared in nearly all of the play spaces. The current design of the playgrounds also does not take the needs of children's care takers into consideration. This results in misusing playground facilities by the care takers. In order to address the issue of inclusive play for children and the care takers, the paper reviews the playgrounds in Hong Kong in terms of the accessibility and availability and identifies the inclusive issues in playgrounds of the densely populated city. It also highlights the current strategies that the government has developed to deal with the problem. The paper argues that in a populous city such as Hong Kong it is inevitable to encounter difficulties in building inclusive play spaces and promoting inclusive play, and specific strategies of using spaces creatively is a must to ensure an effective design for children's play in needs.

© 2017 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of the Urban Transitions Conference

*Keywords:* Inclusive; play spaces; playgrounds; densely populated cities

---

### 1. Introduction

Play is essential in children's cognitive, social and physical development [1]. It facilitates children to practise motor coordination, learn the physical world, and develop their problem-solving skills and abstract thinking.

---

\* Corresponding author. Tel.: +852-27665455; fax: +852-27745067.

E-mail address: [m.siu@polyu.edu.hk](mailto:m.siu@polyu.edu.hk)

Children can also learn to be emotional intelligent and develop social skills through playing and interacting with others. Play is generally considered as children's business [2]. It is the 'culture of childhood' [3]. Playgrounds are the designed environment to provide facilities for playing and engage children in play [4], and children born in urban cities often play with others in public playgrounds.

All children at different ages with different abilities have the right to play. According to the Article 31 of the United Nations Convention on the Rights of the Child, States should "recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts" [5]. The Article 30 of the Convention on the Rights of Persons with Disabilities also suggested that States Parties should ensure that physically disabled children are able to engage in play activities equally with other children [6]. Therefore, it is essential to include children with disabilities in playgrounds so that they can enjoy the right and the benefit of play. In addition, including children with disabilities in playground is also essential to promote an inclusive society, as it is the first step to fight discrimination and marginalisation [7].

Research studies about including children with different physical and cognitive abilities (or called, capabilities) in public play spaces and designs of inclusive playgrounds are numerous (Note: "play space" in the following paragraphs means "public play space"). For instance, Wolley, Armitage, Bishop, Curtis and Ginsborg [8-10] investigated the inclusion of disabled children in primary school playgrounds and identified social, organizational and physical issues which affect disabled children's inclusive experience. While some good social and organizational practices were found in their studies, very few good physical practices could be observed. The only good practice was the provision of ramps. Holt, Moore and Beckett [11] launched a participatory design project investigating the aspiration and barriers of inclusive play. They found that social barriers of inclusive play could be removed by using a better design of play facilities. Jeanes and Magee [1] discussed the physical and social issues hindering disabled children to play in public playgrounds and provided a guideline of developing more inclusive play facilities. Through a case study, they suggested that 'consultation, suitable access, opportunities to develop relationships and demonstrate capabilities, fully trained and supportive staff' were essential.

Despite the well-establish research studies and the significant findings, some children are still unable to do the play business due to cognitive or physical constraints. Especially in some densely populated cities, such as Hong Kong, play spaces specially designed for disabled children are inadequate. The limited space, the unawareness of the related government departments, and the lacking understanding about the needs and preferences of children with disabilities are some of the reasons. Academic studies related to inclusive playgrounds and inclusive play in Hong Kong context is lacking. In order to understand the topic more clearly, this paper investigates the issue of inclusive playgrounds in densely populated cities through a case study of Hong Kong. It aims to pinpoint the issues and concerns of inclusive play in high-density living environment that previous research did not concern.

## **2. Playgrounds in Hong Kong**

Playgrounds in Hong Kong are managed by the Leisure and Cultural Services Department (LCSD), the Housing Authority and Housing Department, or private sectors. In general, the playgrounds managed by the LCSD are larger in size and have more diverse play facilities. The general designs of all the playgrounds are similar. In our preliminary study investigating 105 playgrounds in a district with highest population density in Hong Kong, it was found that almost all playgrounds consist of numbers of composite play structure including slides and climbing facilities (Fig.1). Other play facilities include swings, rocking chairs, seesaws, climbing facilities and merry-go-rounds. Some playgrounds also include cognitive games such as tic-tac-toe. These facilities are one and the same, and nothing new can be found in playgrounds.



Fig. 1 (a) (b) Typical composite play structures in Hong Kong playgrounds

The mass media had also noticed the issue. In 2015, the *Initium Media* [12] had conducted several interviews with playground experts, landscape designers, government personnel and children to discuss the absence of real fun in Hong Kong playgrounds. It was found that the playgrounds had a ‘fast-food’ standardized characteristic. The play contents were homogeneous and repeated. The playground design did not focus on children and their rights to play. Instead, having less safety issues, less complaints, easier management and maintenance were the ultimate goals of designing playgrounds. For instance, our study also found out that sandpit is rare in Hong Kong playgrounds, and there is only one in the Hong Kong Park among all children’s playgrounds managed by the LCSD. Although the LCSD replied that there were already many beaches in Hong Kong, it was difficult for the low income families to go to beaches often and bring their children to play with sands and water. The identical design of the playground facilities and the poor managerial attitudes had caused not only the fixation of play but also the obstruction of playground inclusiveness.

### 3. Inclusiveness in Hong Kong playgrounds

#### 3.1. Lack of inclusive playgrounds

According to the LCSD, among the 659 children’s playgrounds managed by the LCSD in 2013 [13], about 70% of its children’s playgrounds are inclusive [14]. However, the Hong Kong Committee for UNICEF found that only 4.5% of them are equipped with inclusive facilities [15]. In recent survey about inclusive play in Hong Kong, the parents of 75% of the children with disabilities had never heard of the term ‘inclusive play’, and 80% of their children had no related experience [15].



Fig. 2 An example of misusing playground facilities by the care takers

In addition, in our preliminary observation of the 105 playgrounds there was no child with disability playing or even appeared in nearly all of the play spaces. The current design of the playgrounds also does not take the needs of children's care takers into consideration. This results in misusing playground facilities by the care takers. For instance, in Fig. 2, two care takers were sitting and chit-chatting on the swings while a child was playing next to them. In sum, the inclusiveness of playgrounds and play spaces is not well addressed in Hong Kong. The current design of playgrounds does not cater for the needs of disabled children and also other users.

A member of the Legislative Council had actually addressed the shortage of inclusive playgrounds in 2014 [16]. He argued that although the playgrounds were claimed to be inclusive, most of them did not provide suitable facilities for disabled children. The Secretary for Home Affairs of the Hong Kong Government replied that ramps and inclusive elements had been installed in some playgrounds between 2013 to 2014. However, in two of the playgrounds mentioned by the Secretary, inclusive play facilities could hardly be found. Although the playground entrance was installed with ramps and without stairs, the play facilities were not inclusive. Fig. 3 below shows some play facilities in one of the 'inclusive' playgrounds.

The stairs of the composite playstructure and the seesaw shown in Fig. 3 do not allow children with physical and visual disabilities using the slides. Although other facilities includes games related to vision, hearing and cognition, there is no trace of inclusive play. There is also no related signage, guidance and aid in the playgrounds. It is questionable how the facilities can cater the special needs of children with disabilities.



Fig. 3 Play facilities in one of the 'inclusive' playgrounds

(a) composite play structure; (b) seesaw; (c) visual, auditory and cognitive game boards ; (d) tic-tac-toe.

According to a parent of a child with physical disability reported in a local newspapers in 2014 [17], it was nearly impossible to bring his child to play slides in so-called 'inclusive' playgrounds. It would take few minutes for two



adults to bring the child up to a slide. The parent said that his child played in the ‘inclusive’ playground less than five times, and he was confused about what an inclusive playground is.

Apparently, the government does not have a clear definition of inclusive play and playgrounds. There is also no evaluation system to assess the existing ‘inclusive’ playgrounds. The government does not have clear guidelines and detailed standard about inclusiveness and accessibility in playgrounds [18].

### 3.2. Inclusive playgrounds in Tuen Mun district

Not until recently did the government notice the needs. In 2015, the LCSD, the Architectural Services Department and the Tuen Mun District Council supported the Playright Children’s Play Association, the Hong Kong Committee for UNICEF, and the Hong Kong Institute of Landscape Architects to promote inclusive play in Hong Kong and to organize the UNICEF Inclusive Play Space Design Ideas Competition. The competition aimed to gain creative ideas in designing inclusive playgrounds, and the ideas would be used in the new inclusive playground in Tuen Mun district [19,20]. The winning designs of the competition catered the needs of people of all ages with diverse abilities. They also incorporated nature into the inclusive playgrounds.



Fig. 4 Inclusive play facilities in one of the playgrounds in Tuen Mun district  
(a) playground entrance; (b) composite play structure; (c) seesaw; (d) the pathway to seesaw.

Tuen Mun district perhaps is one of the best districts in implementing the inclusive project. In Tuen Mun and Yuen Long districts, there are 11 special schools (out of 60 in Hong Kong) [21]. Many children with disabilities live in these districts, and they long for inclusive playgrounds to develop their social and emotional abilities. In some new public housing estates in Tuen Mun, inclusive facilities had already installed in some playgrounds. These playgrounds are managed by the Housing Authority and Housing Department. Fig. 4 shows the inclusive facilities in these playgrounds.

Fig. 4a shows the playground entrance. The entrance is wide enough to allow children on wheelchairs entering the playground. The passageways in the playground are wider than those in other playgrounds mentioned in the previous section. The play facility shown in Fig. 4b is also suitable for the wheelchair children, and there are adequate rooms for them to move around. The playground has a special seesaw designed for the wheelchair children (Figs. 4c and 4d). The pathway to the seesaw is a wide ramp, and the platform of the seesaw is also spacious enough.

Although the playground is not large in size, these play facilities are able to cater the needs of children with physical disabilities. As the public housing estate is relatively new, it is easier to allocate new and inclusive play facilities in its playgrounds. On the contrary, building inclusive playgrounds or facilities at city-wide scale is problematic.

### *3.3. Possible difficulties in promoting inclusive play in Hong Kong*

Shortage of land in Hong Kong is one of the issues hindering the development of inclusive playgrounds at city-wide scale. For instance, in Kowloon, most of the lands were used for residential, commercial or industrial purposes, and there is no extra space available for building new inclusive playgrounds. The living space is already very limited, and it is hardly feasible to reconsider the land use only for inclusive facilities. There are many other concerns and needs that should be addressed and fulfilled urgently, and building inclusive facilities may not be the first priority. Renewing the existing playgrounds is the best way to promote inclusiveness. However, the size of existing playgrounds is small and limited, and sometimes it is unsuitable to place inclusive play facilities which often require a larger area. Specific strategies of using spaces creatively are needed to tackle the issue. If no solution can be found, inclusive playgrounds will only be available in the remote areas of Hong Kong, and children with disabilities in the city center will be unable to enjoy them.

Another issue is the discriminative attitudes of the city dwellers. Even if the hardware is ready for use, the software, i.e., the people in the city, may not be well-prepared for inclusive play. The inclusive playgrounds would not be fully utilized without engaging a group of considerate users having inclusive mindsets. This concerns whether social inclusiveness can be adopted and promoted through the inclusive playgrounds. For the past two decades, there is a growing concern of social inclusion in the academia. Designing for social inclusion, i.e., socially inclusive design [22] is what a city demands. Park and play-space designers certainly have a role to play for social inclusion [23]. However, until now the government still has not put considerable effort in educating our next generation to be inclusive. It may take the government few more years to notice the issue after the provision of inclusive playgrounds.

## **4. Conclusions**

The paper reviews the design of current typical children's playgrounds and the issues of 'inclusive' playgrounds of the LCSD, and discusses the development of inclusive playgrounds and the facilities in Tuen Mun district. Providing more inclusive playgrounds and promoting inclusive play in Hong Kong are assuredly complicated. It is argued that other urban cities also encounter similar difficulties, and creative solutions are needed to fulfill different needs of the city dwellers. In addition, the needs of the children with different disabilities and their care takers are to be investigated primarily so that the facilities can respond to their urgency effectively. The cognitive and psychological preparation of city dwellers is essential in the development and the provision of inclusive playgrounds.

## Acknowledgements

We would like to acknowledge The Hong Kong Polytechnic University for the university competitive research grants. The Education University of Hong Kong provided support for the preparation of the manuscript. Wuhan University of Technology provided partial research support. We thank Chi Hang Paul Lo and Chun Hong Cheung for the field work assistance.

## References

- [1] R. Jeanes, J. Magee, ‘Can we play on the swings and roundabouts?’: Creating inclusive play spaces for disabled young people and their families, *Leisure Studies* 31 (2012) 193-210.
- [2] J. Bruner, Play is serious business, *Psychology Today* 8 (1975) 83.
- [3] A. James, *Childhood identities: Self and social relationships in the experience of the child*, Edinburgh University Press, Edinburgh, 1993.
- [4] A. Brett, R.C. Moore, E.F. Provenzo, Jr., *The complete playground book*, Syracuse University Press, New York, 1993.
- [5] UN General Assembly, *Convention on the rights of the child*, United Nations Treaty Series 1577 (1989), <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>
- [6] Secretariat for the Convention on the Rights of Persons with Disabilities, Article 30 – Participation in cultural life, recreation, leisure and sport, 2006, <http://www.un.org/disabilities/default.asp?id=290>
- [7] N.M. Yantzi, N.L. Yong, P. McKeever, The suitability of school playgrounds for physically disabled children, *Children’s Geographies* 8 (2010) 65-78.
- [8] H. Woolley, M. Armitage, J. Bishop, M. Curtis, J. Ginsborg, Going outside together: Good practice with respect to the inclusion of disabled children in primary school playground, *Children’s Geographies* 4 (2006) 303-318.
- [9] H. Woolley, M. Armitage, J. Bishop, M. Curtis, J. Ginsborg, Inclusion of disabled children in primary school playgrounds, National Children’s Bureau and Joseph Rowntree Foundation, London, 2006.
- [10] H. Woolley, M. Armitage, J. Bishop, M. Curtis, J. Ginsborg, Inclusion of disabled children in primary school playgrounds, 2006, <https://www.jrf.org.uk/report/inclusion-disabled-children-primary-school-playgrounds>
- [11] R.J. Holt, A.M. Moore, A.E. Beckett, Together through play: Facilitating inclusive play through participatory design, in: P.M. Langdon, J. Lazar, A. Heylighen, H. Dong (Eds.), *Inclusive designing: Joining usability accessibility, and inclusion*, Springer, New York, 2014, pp. 245-255.
- [12] Initium Media, I want real playgrounds, 2015, <http://playground.initiumlab.com/>
- [13] J.C. Tsang, The 2015-16 budget – Estimates: Head 95 - Leisure and Cultural Services Department, 2015, <http://www.budget.gov.hk/2015/eng/pdf/head095.pdf> 2015
- [14] Leisure and Cultural services Department, Play equipment for all children, 2015, <http://www.lcsd.gov.hk/tc/facilities/facilitieslist/children/playequipment.html>
- [15] Hong Kong Committee for UNICEF, Playright Children’s Play Association - ‘Playright UNICEF inclusive play 2012’, 2016, <http://www.unicef.org.hk/uniteforhk/2012/playright-childrens-play>
- [16] Hong Kong SAR Government, Press releases: LCQ7: Inclusive play equipment, 2014, <http://www.info.gov.hk/gia/general/201402/12/P201402120201.htm>
- [17] Oriental Daily, LCSD playgrounds: Blabbering about inclusion of the disabilities, January 20, 2014, [http://orientaldaily.on.cc/cnt/news/20140120/00176\\_095.html](http://orientaldaily.on.cc/cnt/news/20140120/00176_095.html)
- [18] Architectural Services Department, Universal accessibility for external areas, open spaces and green spaces, 2007, <https://www.archsd.gov.hk/archsd/html/ua2/index.html>
- [19] Playright Children’s Play Association, UNICEF inclusive play space design ideas competition, 2015, [http://www.playgroundforall.hk/inclusive\\_play\\_space/index.php/zh/overview-2/introduction](http://www.playgroundforall.hk/inclusive_play_space/index.php/zh/overview-2/introduction)
- [20] Hong Kong SAR Government, Press releases: New inclusive playgrounds experienced to be introduced in Tuen Mun Park (with photos), 2016, <http://www.info.gov.hk/gia/general/201607/07/P201607070521.htm>
- [21] Apple Daily, Introducing new inclusive playing experience in Tuen Mun children’s playgrounds, May 10, 2014, <http://hk.apple.nextmedia.com/news/art/20140510/18715485>
- [22] Y.L. Wong, K.W.M. Siu, M.S. Lam, Developing a social capability model of inclusive public facilities: A case study of play space in Hong Kong, in: R. Goonetilleke, W. Karwowski (Eds.), *Advances in physical ergonomics and human factors: Proceedings of the AHEF 2016 international conference on physical ergonomics and human factors*, 2016, pp. 561-570.
- [23] R.C. Moore, N.G. Cosco, What makes a park inclusive and universally designed? A multi-method approach, in: C.W. Thompson, P. Travlou (Eds.), *Open space people space*, Taylor and Francis, London, 2007, pp. 85-110.