Background

School ground design and children’s behaviour

The design of school ground has significant influences on children’s behaviour and development; socially, academically, and cognitively.

Durán-Narucki, 2008
Dyment & Bell, 2007;
Malone & Tranter, 200
Willenberg et al., 2010;
Haug et al., 2008
Problem Statement

Appropriate school grounds’ environment as a mean towards meeting children’s developmental and environmental needs, and advancing educational process.


Limits active learning and physical activities

Does not support children’s development and children’s need of varying interests and abilities
In recent years, there has been a growing discourse regarding **recognizing** and **valuing children’s perspectives** about their environment.

Malinin, 2012; Stanley, 2011; Samborski, 2010; Kasalı & Doğan, 2010

- Understanding children’s emotions, needs and preferences
- Offer more meaningful learning experiences for the children
- Enhances children’s learning and engagement in schools
- Ideal school ground environment

**Children are the primary and active occupants at school**

They aware of the spatial elements
Able to make choices accordingly

Kasali & Doğan, 2010; Waller, 2006

*Listen to children & doing research with them...*
Aim:
To discover the ideal school ground environments for environmental learning in the perspectives of elementary school children in Johor, Malaysia

Research questions:

• What are the children’s preferences for their school ground elements and designs?

• Why the elements and designs are important for them?
Research methodology

Approach
Qualitative – participatory approaches

Respondent
Middle-childhood children
(8-11-year old; N=80, n=40 per school)

Study sites
SK Taman Molek, Johor Bahru (Urban)
SK Sungai Bunyi, Pontian (Rural)

Methods
1. Children’s drawing
   Children’s drew their ideal school grounds

2. Discussion
   Children’s labeled and explained their drawings

Analysis
1. Content analysis
2. Descriptive analysis
Procedure

- Researchers showed example of pictures on environmental learning activities
- Children imagined other activities and the ideal school ground environments
- Children drew their ideal school grounds
- Children labeled and stated reasons on their drawings
- Discussion with children on their drawings (children explained and researchers added notes for clarification)
A child’s drawing on ideal school ground environment represents a child’s understanding of a school ground potentiality; indicating what a school ground can offers to a child in term of significant element.

Titman, 1994; Samborski, 2010
Results and discussion:

*Environmental elements* encountered in children’s drawings

The elements symbolized the objects and experiences that important for school ground environments
Results and discussion:

Environmental elements encountered in children’s drawings

154 different environmental elements were encountered from children’s drawings
- 83 (54%) at urban school
- 122 (79%) at rural school

731 mentions were counted from children’s drawings
- 286 (39%) at urban school
- 445 (61%) at rural school
- Average mentions = 9.1
Results and discussion:

Environmental elements encountered in children’s drawings

1. The school ground environments that offer miscellaneous of environmental elements

2. The school ground environments that afford them to perform various outdoor activities, independently
Results and discussion:

The relevant design patterns for ideal school grounds

The design patterns symbolized the spaces and places that important for the school ground environments, Based on children’s need, interest and preference
Results and discussion:

The relevant design patterns for ideal school grounds

- Relevant design patterns
- Reference main building
- Canteen
- Technology for children
- Learning zone
- Play area
- Green area
- Quiet and Private space
- Orchard
- Outdoor area (hard/grass)
- Field
- Sporting courts
- Pathways and campus plan
- Promenade and entrance
- Animal life
- Context

Context
Results and discussion:

The relevant design patterns for ideal school grounds
The most frequent element drew by children

Frequent attention results to place familiarity

Common and essential element at school

Reference
Green area
Animal life
Quiet & private area
Play area

A drawing by a girl, aged 9 at rural school

Main building as ‘focal point’

Important place that affords learning activities at school

Classroom; Library; Laboratory; Computer lab
Toilet; Prayer room; Teacher’s room; Office

A drawing by a boy, aged 9 at urban school
Green area consisted of **vegetative elements**...

Children always associated the vegetative elements with gardens.

**Gardens**...
- give a face-lift to the school ground environment;
- will attract other creatures (i.e., butterflies, birds);
- will increase the biodiversity of the environment for children’s environmental learning.

and **manmade elements**...

**Manmade elements play vital roles in children’s landscape because**...
- it affords children’s activities;
- it compliments children’s interests on natural elements and children’s needs in performing their desired activities.
Children have strong affection for animals

*Animals are highly responsive;*

*Animals offer many dynamic opportunities for interaction; hold children’s attention and lower arousal;*

*Children interaction with animals can foster love and caring;*

*Teach them a sense of responsibility and respect.*
Private area

Tranquil spaces to spend time with close friends

Children need solitary and private spaces as much as social spaces for retreat

It becomes their secret places

Quiet area

Provide the children with feelings of...

Security
Privacy
Control

The space that affords emotional release

A drawing by a girl, aged 8 at rural school

A drawing by a girl, aged 10 at rural school
Play area

A space for children to explore, manipulate, fantasize and arouse their curiosity

Children values the space as a utility to get feedbacks, including physical movement and social interaction

Different play spaces afford different types and levels of activity
A diverse school ground affords more opportunities for learning and play; a place for interaction and reflection. Offers both natural and manmade elements. Offers variety of spaces for children’s development.

Conclusion

An ideal school ground environment...
Thank you....