

CHILD CENTERED PEDAGOGY FOR AT RISK CHILDREN AT CHOW KIT,  
KUALA LUMPUR

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“May Peace Be Upon You”

Special dedication to people involved, especially parents, family and friends

Thank you Allah S.W.T for everything

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## ABSTRACT

Street children are children who faced a significant problem in their everyday life with the everyday concern of survival in urban area from the age 5 to 18 years old. UNICEF (1984) has categorized the street children into three categories which are children at risk, children on the street and children of the street. Accordingly, a category of street children in Chow Kit is under category of „children at risk“. A at risk children is defined as any person aged from infants to 18 years who facing social, economic and political problem in daily life. The issue of the street children is increasing problem namely in urban context due to social, economic and political factors. According to UNICEF (2000) there are three reasons to this problem including root, underlying and immediate cause. Past literature by scholars has focuses on children development but none of this had focused on proposing on an appropriate child care environment in terms of architectural planning and form making by focusing at issues found in newly developed countries like Malaysia. The objective of this study is focusing on the characteristic of the street children in Chow Kit area, problem of existing children center, arising issue relating to current intervention and available program and approach for street children to fulfill the needs of the street children. The method use for this study is qualitative methods where the data is collected from the unstructured interview and space syntax observation method then the data is analyses based on building explanation. From this discussion, explanation will be seen how the proposed pedagogy (approach) for Chow Kit Children at risk can fulfill the needs of this children and how the solution contribute to the urban renewal of the Chow Kit area.

## ABSTRAK

Kanak-kanak jalanan adalah kanak-kanak yang menghadapi masalah dalam kehidupan seharian mereka dengan kebimbangan untuk meneruskan hidup di kawasan bandar bermula dari umur 5 hingga 18 tahun. UNICEF (1984) telah mengkategorikan kanak-kanak jalanan kepada tiga kategori iaitu, kanak-kanak berisiko, kanak-kanak di jalan dan kanak-kanak jalanan. Oleh itu, kanak-kanak jalanan di Chow Kit adalah di bawah kategori kanak-kanak berisiko. Kanak-kanak berisiko ditakrifkan sebagai kanak-kanak yang berumur dari bayi sehingga 18 tahun yang menghadapi masalah ekonomi, politik dan social dalam kehidupan seharian. Isu kanak-kanak jalanan semakin meningkat terutama di dalam konteks bandar disebabkan oleh factor sosial, ekonomi dan politik. Menurut UNICEF(2000) terdapat tiga sebab kepada masalah ini termasuk masalah akar, asas dan punca serta merta. Kajian-kajian yang lepas mempunyai focus kepada pembangunan kanak-kanak tetapi tidak ada daripada kajian tersebut memberi tumpuan kepada alam persekitaran yang sesuai dari segi perancangan seni bina dan bentuk bangunan dengan memberi tumpuan pada isu-isu yang dijumpai di dalam negara yang sedang membangun seperti Malaysia. Objektif kajian ini memberi tumpuan kepada ciri-ciri kanak-kanak jalanan di Chow Kit, masalah pusat kanak-kanak yang sedia ada, isu berkaitan dengan program sedia ada dan pendekatan untuk kanak-kanak untuk memenuhi kehendak dan keperluan kanak-kanak jalanan. Kaedah yang digunakan untuk kajian ini adalah kaedah kualitatif di mana data yang dikumpul daripada temu bual tidak berstruktur, pemerhatian dan ruang sintaks kemudian data di analisis berdasarkan kaedah „building explanation“. Dari perbincangan ini, penjelasan akan dilihat bagaimana pedagogi atau pendekatan yang dicadangkan untuk kanak-kanak berisiko Chow Kit dapat memenuhi keperluan dan kehendak kanak-kanak ini dan bagaimana penyelesaian dapat menyumbang kepada pembaharuan konteks untuk kanak-kanak ini di kawasan Chow Kit.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background of Study**

Street children is defined as children whom live in streets due to social problems and are increasingly in high numbers namely in newly developed countries focusing at urban areas. This issue is due to high economic demand in urban society as well as the problem of immigrants, poverty, family crisis and social change factors (UNICEF, 2008). Even though many government agencies as well as non-governmental bodies try to tackle the issue by implementing many alternative programs to support the street kids needs including educational and self-support program including the building of many children centers throughout urban areas the problem still remain untackled.

In relation to this, the study therefore proposed a street care center that may provide interaction programs in a suitable living environment to rehabilitate the street children to be able to live independent and self-support themselves as individual including spiritual, education, economic and environment support.

## 1.2 Problem Statement

This study focuses on the well-being of the street children. The issue of the street children is increasing problem namely in urban context due to social, economic and political factors. According to UNICEF (2000) there are three reasons to this problem including root, underlying and immediate cause.

### a) Root causes (Political)

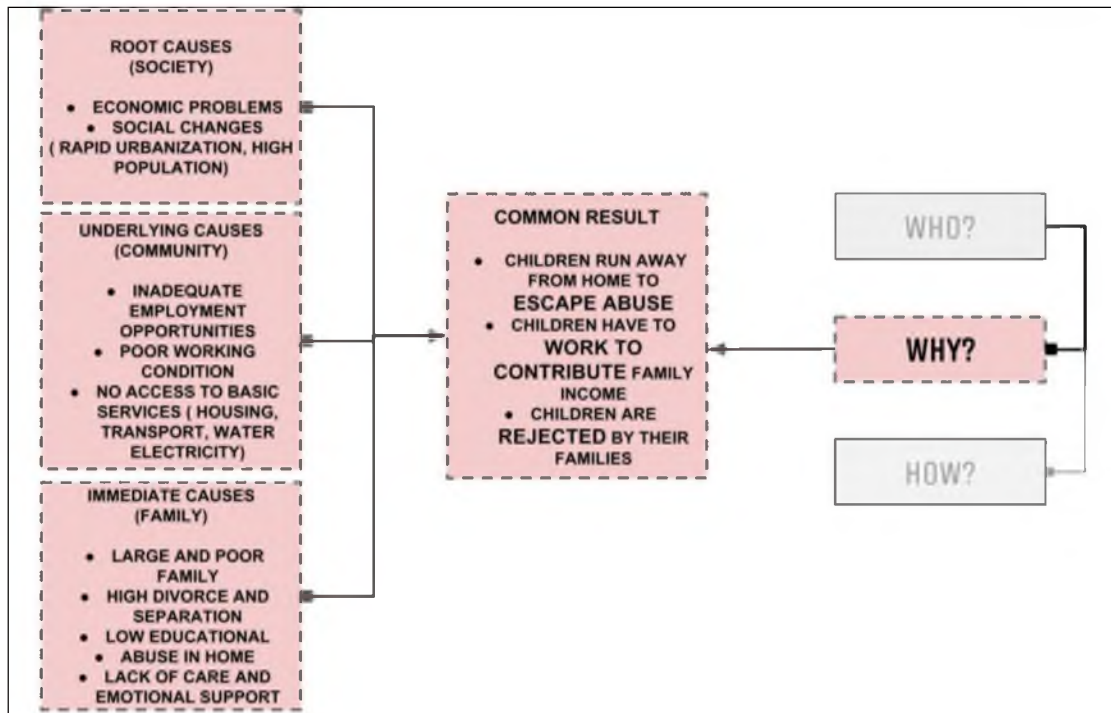
- i. The issues of political change in urban area
  - High density of living area
  - Rapid urbanization and population

### b) Underlying causes (Economy)

- i. The issues of economic
  - Inadequate employment
  - No enough access to basic needs (housing, transport, water and electricity. This effect the comfort level of well-being of household.

### c) Immediate-causes ( Social –family)

- i. The issue of social gap among family members
  - Low educational background
  - High divorce and separation
  - Low income family background (mostly b40 family background)



**Figure 1.1:** The common result why children go to the street. (Sources: UNICEF, 2000).

### 1.3 Research Objectives

In reference to the above issue, the objective of this research is divided into four main objectives as below:

- i. To analyze the characteristic of street children in Malaysia by focusing at wellbeing of street children in Kuala Lumpur city center at Chow Kit areas.
- ii. To identify design problem of the existing children center from the architectural perspective for street children in Kuala Lumpur area.
- iii. To identify arising issue relating to current intervention and programs available in the existing children center.

- iv. To propose an approach (pedagogy) for street children to fulfill the needs of street children wellbeing and architectural design guideline to enhance the living standard of the children.

#### **1.4 Research Questions**

In reference to the above objectives, the research questions are indicated below:

- i. What are the existing problem faced by the street children in Malaysia namely Kuala Lumpur focusing at Chow Kit areas?
- ii. How is the present condition of the available childcare center for street children in Malaysia?
- iii. What are the pros and cons of the current intervention and program support provided by the government and non-governmental bodies in the existing child care center?
- iv. What are the best proposal in terms of architectural design and curriculum approach that can enhance the wellbeing of these street children for future reference and guidelines?

## 1.5 Significance of Research

The study is significant as it seeks to help the researcher to understand the important of children in the inner-city such as Kuala Lumpur. The connection between the child and the urban space was influenced by its surrounding context such as urban bustle, crowding, traffic, family relations and group separation. All this lead to problem of the relationship between children and their environment. The transition from playing with no limit of space, to special playgrounds made children perceive this as a restriction to their freedom and their relationship with the city was affected. Taking this into consideration and by understanding the children context and their behavior, we must take into account the fact that the city represents some of the children as a dwelling, which influence their development and the city itself.

## 1.6 Scope of Research

The scope of the research will be:

- i. Centered at street kids living in the area of Chow Kit located at Kuala Lumpur as one of the dense city urban living areas in Malaysia.
- ii. The research will only focus on psychology being of street children.
- iii. The research will only focus on the existing architecture child care center and review the present program and approach applied child care center found in the Malaysia's context.



## 1.7 Structure of research

The research structure has divided into seven chapters. The first chapter is an introduction followed by literature review, research methodology, findings, discussion, recommendations and conclusion.

- i. Chapter 1: This chapter explains what the thesis is about, the problem that the research is concerned with, the objectives, research question, significant and research structure.
- ii. Chapter 2 : This chapter is a literature review section where the knowledge required before understand the research including introduction the street children in Kuala Lumpur focusing in Chow Kit area, relevant history, context, theory and practice and the gap.
- iii. Chapter 3 : Chapter 3 is the methodology of this research where it will discuss on the flow on how this research is conducted
- iv. Chapter 4 : Chapter 4 is the finding of the research
- v. Chapter 5 : Chapter 5 is discussion from previous chapter
- vi. Chapter 6: Chapter 6 is conclusion and recommendation of the research.

## 1.8 Summary

This chapter highlights the problem, objectives and also scope of the study. To understand the study in depth, next chapter will discuss the literature review comprising of three areas relating to street children.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter will briefly reviews the related research and literature review about the study area and identifies the gap of the literature review to strengthen the need and importance for this research. The review for the related literature in this chapter is divided into four main sections.

First section will discuss on the meaning and characteristics of street children. Second section elaborates on children psychological on the children psychological well-being. The third section discusses on appropriate environmental conditions for children from architectural spatial planning and design form in relation to architectural theories. Fourth section highlighted of philosophical study will identify the gaps of available literature relating to the study of the street children in Malaysia and explain how this study fills in the gap by highlighting on approaches and scheme for future development and references.

## 2.2 Street Children

### 2.2.1 Definition of Children

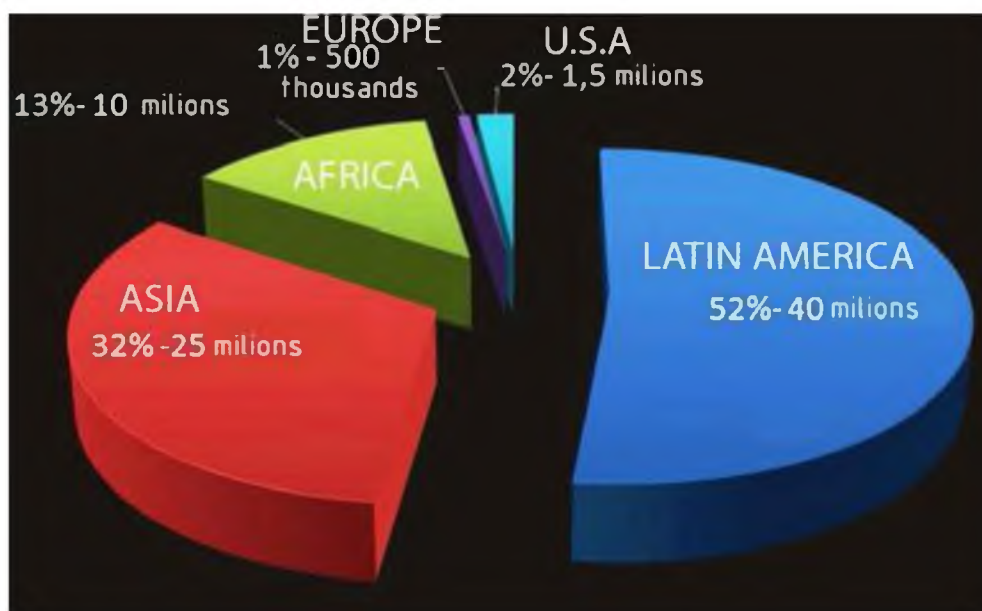
Based on the definition by UNICEF (2000), the children can be defined as any person below the age of 18 is called as a children or kids and it is under a stage of human being from the stage of birth until the puberty stage. Other definition by UNICEF (2015) is a child is any person who is younger than the age of majority which is adult is called child. Biologically, a child is generally anyone between birth and puberty stage. Some English definitions, a child is considered as adult after undergoing a right stage of human being which may not correspond to the time of puberty.

### 2.2.1 Definition of street Children

Street children are always viewed as children who faced a significant problem in their everyday life with the everyday concern of survival in urban area. United Nations Children's Emergency Fund (UNICEF) defines the street kids as kids who live in the streets and the street is their home. According to (UNICEF, 1984) there are three categories of street children as below:

- i. Children at risk: is a child who lives with their families but work on the street to support family income or as an additional income to support their life. Because of poverty the children facing some risk factors in their life such as lack of schooling that lead these children spending their time on street. According to (UNICEF, 1984), the children at risk are the largest group namely focuses in urban area.
- ii. Children *on* the street: is a child who goes to work during the day on the street but then return home during the night. The children jobs include the menial labor, selling small items such as tissue, magazine or newspaper. They attend to the school based on the additional income (Lalor, 1999). Most of these

of the street children roaming on the street followed by Asia 25 million and Africa 10 million.



**Figure 2.2:** The situation of the street children in the world chart. (Source: [www.streetchildren.org.uk](http://www.streetchildren.org.uk))

These factors cause children to be taken out of school or never enrolled the school because they needed to contribute to the family's income through selling, begging or street trades. As a result this children who work on the streets during the day will need up not returning back to their home. Some will choose to run away repeatedly until they no longer return home.

In Malaysia as one of the developed countries, the issue of street children also is at high numbers. In relation to this, next section will highlighted and discuss the issue of street children namely in Chow Kit, Kuala Lumpur due to its status as red light district in the country.

The economic issues are one of the reasons to explain these issues. Children usually taken out and drop out from the school because of this problem where they need to stop school to help their parent to find income for family. But, it's not the

only reason why some of the children permanently choose street as their living space. Some children facing problem with their family include the family bonding and family environment. Some run away from home to the street and return back to home and others run away from home the moment they leave home for the first time. The factors behind these issues are contributing to the street children problem. In order to solve the problem it is necessary to understand the reason and previous live of the children before they choose street as the living space.

#### **2.2.4 Chow Kit at risk children**

Different from ordinary children who have hope and happiness, street kids can be categorized as special kids whom are totally abandoned in our urban space. The street in Chow Kit as an existing playground for the street kids become the space where they flourished their creativity and spend time with public and NGOs.

Accordingly, a category of street children in Chow Kit is under category of „children at risk“. A Child at Risk is defined as any person aged from infants to 18 years who facing social problem where the need of the community program will be help their problem. The program need to support and help to reduce the issue facing by these children such as health issues, learning or physical disability, sensory impairment, age or illness and who is or may be unable to take care of or unable to protect against significant harm or serious exploitation.

Based on UNICEF Malaysia Communications (2011), the inner-city children is a child who come from low income family with b40 background and come from fracture or single parent household. The children are in the range of the ages of 5-18 years old. Most of the inner city children are facing poverty problem. These children are at risk since they are living in the urban area the children are at risk and some will start to explore the boundaries of their existing life, boredom and the feeling to escape their daily routine. The UNICEF (2000) has categorized the children based on the following categories:

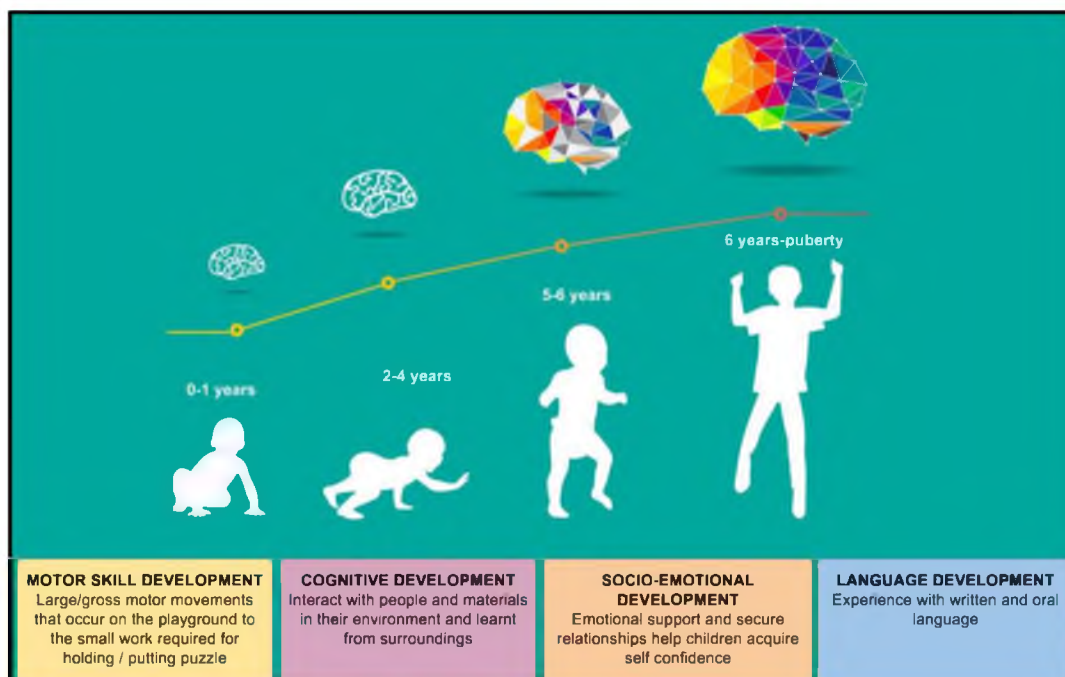
- Children who are at risk to violence, crime, drug use, sex work and HIV in their communities.
- Children living or working on the streets
- Children involved in risk behavior such as drug use and unprotected sex
- Children forced into commercial sex as well as victims of trafficking especially the girl.
- No formal documentation or birth registration
- No access to education because of poverty and family background

These children are more exposed to health risks, violence, abuse, exploitation including trafficking. Many consistently drop out of school and do not complete their education. The children are facing social exclusion from the society and their own community because of poverty and rapid urbanization (UNICEF, 2000). Before develop in further to discuss on the issue of street children the next section will elaborate on the children's well-being to understand the psychology development of the children. This is important as it will provide an overview and explanation how to design appropriate environment for children's development.

### **2.3 Children's Development**

Biological, psychological and emotional is the stage include in the children development stage that occur in between the birth stage and adolescence. This process of development is a continuous process for every child and it is difference for every child. Children development can be divided into four stages of development which is cognitive, fine and gross motor development, socio-emotional and language development as shown in the Figure 2.2. Cognitive development is one of the stage developments which refers to the progressive and continues growth development stage including stage of memory and imagination, stage of perception, judgment and reason. According to Piaget (2001), maturation, physical experience, social

interaction and general progression toward equilibrium cognitive are the factors that contribute to the cognitive development.



**Figure 2.3:** The stage development of children

Another stage of children development is gross and fine motor skill. It is an activity that involves movement of large muscle such as sitting upright, running or walking and the fine motor skill activity involve smaller muscles such as writing and talking. The third stage development of the child is socio-emotional stage. This stage usually evaluated by teachers, doctor or children psychologist. To develop this skill the child need to learn and interested in socializing and communicating to other. This stage will help children to develop their communication skill. The last stage is language stage where it is also evaluated by teacher or children psychologist where the children will experience oral and written language. Normally children will learn this stage more in the classroom or therapy class Piaget (2001).

### 2.3.1 Children's Environment in Architectural Spatial and Form making

In designing proper environment for children to fulfill the needs of cognitive, fine and gross motor as well as socio emotional and language development the following are needed:

- i. Spatial planning
- ii. Form making

#### 2.3.1.1 Spatial Planning

In designing spaces for a children the development of behavior, past scholars had mentioned a guideline design for reference as follows. In order to have proper space for children the space provided must:

- i. Be in small and proportioned scale size space in domesticated layout (Travers & Ruopp, 1978).
  - To achieve this, the space must be well designed to promote interaction of children to occur in small group. This is because when children work and be in smaller group namely for those below age 14, the children will be more verbal, initiative, behavioral reflective and able to carry more task as well as be much more focused ( Travers & Ruopp, 1978).
  - Children who utilized intimate spaces within smaller group to conduct certain activities will also make more develop mental gains as measured to standard development test (Travers & Ruopps, 1978)
  - In addition to that, more engaging behavior between children and tutors/teachers can occur. According to Prescott (1973), when children work together in smaller group within a contained and comfort space exploratory behavior tend to



develop which lead to greater degree of high social achievement and intellectual performance (Moore, 1986).

- ii. Have many pocket space indoor and outdoor for conducting informal and formal activities (Moore, 2007).
  - According to Moore (2007), pocket spaces will stimulate many activities for children to create within their own imagination. The existence of pocket space will trigger the children's cognitive pocket development as the availability of a space within an open space will become a place for children to retreat or escape and be in refuge in their own private zone. This will give children space and place to relax as well as live within their own world.
  - Resource-rich activity pockets – Surrounding each space is a cluster of resource rich activity pockets (primary activity spaces), one for each of the developmentally oriented activities for each age group in that house. Three to four activity pockets can be clustered together, each sized for 2-5 children plus a caregiver. Each activity pocket has a sense of closure, but has cross visibility and is easily visible by an adult. Each pocket has all the teaching materials, displays, and work/play surfaces necessary for that activity.
- iii. Be flexible, manipulated and multifunctional.
  - In this sense, the provided space must be able to be organized and arranged according to the needs of the children.
  - Flexible learning spaces are designed to be multidisciplinary and communal spaces, which can be configured in a number of ways for specific learning experiences. This means the flexible space will provide opportunities both for children and teacher to work together in new (Moore, 1986).
- iv. Open plan and easy access facilities and variety of space to care for large and small activities.

- Modified open plan is a spaces open enough to allow children to see play possibilities and providing enough enclosure for the children to be protected from noise and visual attraction (Moore, 1986)
- The variety of space will make the children move around more and engaging in different activities through the day more a variety of space setting (Moore, 2007).
- Previous study on modified open plan space: Each house can be spatially organized in terms "modified open space." Not to be confused with the totally open plan of the 1960s, with all its problems, nor with the double-loaded corridor of many primary schools, a modified open plan is a creative compromise that combines the best of both while minimizing the limitations of each. It is composed of semi-enclosed/semi-open age-appropriate activity pockets, utilizing half walls, and open archways, glazed or unglazed windows.
- Home as a template for early childhood centers: Child care centers can be patterned after the prevailing residential imagery and scale of nearby houses with residentially scaled roofs, materials and design details that are compatible with the best residential quality in the community, vegetation and landscaping, a covered friendly-face entry, enclosed yards, back-yard sized play areas in general, the building as a friend.

### 2.3.1.2 Form making

In designing built form for children's the need of following criteria are important character to adhere.

- i. Favorable location placement and setting for early childhood centers.
  - Home neighborhood or workplace environment is the best location for children early education center. Appropriate proximities must be considered such as accessibility, away from busy roads, away from noxious or dangerous elements, close to natural features, close to community resources, and a large enough sites to accommodate the building and a variety of play yards. An ideal location can be on the seams between neighborhoods (Prescott & David, 1976).
- ii. Built form material, finishes and design features
  - A good technical feature will lead to positive outcome from the children such as good acoustics, good indoor climate control, good lighting, non-slippery floor surfaces and soft wall surfaces and soft wall and warm color (Prescott & David, 1976).
- iii. Built form identity and architectural style
  - Village or campus-plan concept: For center with a small number of children the building can be decomposed into house concept in which every house has 25-40 children each. Each house will have its own pocket activity, entrance, play yards and its own identity. The house may be clustered around a common core of shared facilities.

Referring to the above space and form making hence is important element to be considered in designing places for children in designing place for children. Nevertheless, the understanding of this architectural element need to be justified and support with related theories outlined by scholars in order to produce more significant built form that fit to the need of the children as main user. To understand this matter in depth, next section will elaborate on the selected architectural theories.

## **2.3.2 Proposed Architectural Setting for Children in relation to Architectural Theories**

### **2.3.2.1 Theory of defensible space**

Defensible space is defined as an environment in which the space planning or the building is function to allow inhabitants and to secure itself by its own environment (Oscar Newman, 1976). Based on Oscar Newman (1976), a good design will create a sense of ownership and responsibility for anything around them. More spaces are under natural surveillance to control the criminal to operate in the area. There are four factors that create defensible space:

- i. Territoriality
- ii. Natural surveillance
- iii. Image
- iv. Milieu (surroundings)

According to Oscar Newman (1972), defensible Space theory creates a social structure that shields itself and aims at physical restructuring that helps the residents to gain control over the area of their homes with established common values and lifestyles (Oscar Newman, 1996). There are four principles of defensible space which are territoriality, natural surveillance, image and milieu. Mohamad Abdul Mohit & Mohamed Hassan Elsayahli Hannan (2012) described it as access control measure that is designed for the rightful users. Mair (2003) defined defensible Space as a structure for residential environment which portrays social strength through the manipulation of the environment while Crofts (2010) described it as using physical attributes of residential ambience into the factors of security determinacy.

Social security can be improved through design where the design and planning of the site is variable in shaping and altering the safety issue and social interaction. According to Crowe (1991) there are five categories of crime which are legal, social, psychological, biological and political. For the social category, the crime occurs when the place or environment in a poor and planning of the area will allows people to

commit a crime. Environmental crime prevention measures were developed based on several aspects such as opportunity, routine activity, crime pattern and rational choice (Mair, 2003).

Newman (1976) claimed that territorial can reinforce existing societal values (Newman, 1976). He further explained his theory of defensible space as providing functions in the spaces for collective activities that can be participated by the residents and with that, encourage them to develop territorial attitudes. In essence, territoriality is the manipulation of the passive physical environment to be perceived as actively guarded, supervised or owned that intimidates potential criminals.

Surveillance according to the defensible space theory is the ability to observe the public areas of one's residential environment and to feel continually that one is under observation by other residents while on the grounds of projects and within the public area of building interior (Newman, 1972). Natural surveillance also refers to the visibility of neighbors into the internal and external of public and private spaces in their immediate environment (Mair, 2003). In essence, natural surveillance gives both the occupant and the neighbors of the premise the ability to oversee each other's space over a period of time.

Image and milieu, as explained by Newman (1972), are the overall look and characteristic of an environment that will give either a positive impression or vice versa. These impressions will determine the place's crime rate with the positive impression brings less or zero crime possibility and the negative impression support criminal activity. Milieu is the location of the place that is comforted with the existence of a police station and community center alike.

### 2.3.2.2 Theory of Behavior setting

The behavior setting theory is the study of behavior in its real environment and has holistic and systematic nature. The behavior setting is divided into four elements which is:

- a. Space Stimulation
- b. Sensation and perception
- c. Proxemics (distance)
- d. Kinesiology (movement)

#### a. Space Stimulation

An early child environment is safe and fun place for the children. It is a place like home in which the children are protected from the dangerous element and can be easily supervised by adults/teachers. It is a place where basic activity like playing, eating, sleeping and going bathrooms take place. The place is supported by activity and environment such as philosophy program and curriculum.

For example Montessori Philosophies use good plan of classrooms designed with variety of activity and lively science area for pets and plants to develop child development. In contrast, an early childhood environment that less indoor and outdoor gross motor play space has a low priority on physical development in its curriculum.

Children are the one who need basic need that help the children to grow healthy and grow mature. The essential needs include care from responsive adults, a sense of significance, flexibility to move around and opportunity to play to support their learning process. According to Jim Greenman (1988), early childhood environments should be:

- i. **Rich in experience.** To support children development children need to allow exploring, experiencing and learning basic knowledge through direct experiment. Indeed, childhood is a time when we learn firsthand about the physical world, the feel of water, the constant pull of gravity,

the stink of rotten fruit, and the abrasive feel of concrete on a bare knee.

- ii. **Rich in play.** Play provides a way for children to integrate all their new experiences into their rapidly developing minds, bodies, emotions, and social skills. Brain research supports this idea, stressing that children learn best through an integrated approach combining physical, emotional, cognitive, and social growth (Shore, 1997).
- iii. **Rich in teaching.** The role of the teacher is critical in a child's life. Children depend on teachers to be their confidant, colleague, model, instructor, and nurturer of educational experiences.
- iv. **Rich with people.** Clearly children need lots of exposure to other people in their early childhood years. One of the greater weaknesses of Western society is that our children have less exposure to the diverse group of people living in the local village – baker, farmer, gardener, carpenter, piano tuner, bricklayer and painter.
- v. **Significant to children.** Young children need to feel important. In past eras children were responsible to water the garden, do farm chores, and care for younger children. Children need to feel that what they do is meaningful to someone besides themselves.
- vi. **Places children can call their own.** A basic human need is the need to belong. Children need to feel they belong, too. They need to be close to people they know, have familiar and comfortable objects, and be in a setting that has a personal history for them.

Environments for young children should provide multiple sources of stimulation to encourage the development of physical, cognitive, emotional, and social skills. As you plan your environment, be sure to include the following:

- i. **Places for developmentally appropriate physical activities.** Environments should provide children with opportunities for a lot of developmentally appropriate physical activities. Children learn most effectively through total physical involvement and require a high level of physical activity, variety, and stimulus change (Hale, 1994).

- ii. **Opportunities for concrete, hands-on activities.** Young children need hands-on activities – playing in water, building mud pies, making things out of wood, putting a doll to bed,. They also need lots of ways to practice and integrate new experiences into existing mental structures – dramatic play, drawing, taking photographs, using language, and making things with blocks.
- iii. **Change and variety.** Children seek out a constant change of stimuli – scenery, textures, colours, social groups, activities, environments, sounds, and smells. The more our children spend time in our programmes, the more variation and stimulation they need.
- iv. **Colour and decorations.** Colour and decorations should be used to support the various functional areas in the classroom and centre, provide needed stimulus change and variety, and develop different areas and moods in the room. Vibrant colours such as red, magenta, and yellow work well in the gross motor area; soothing blues and green are good colour choices for hands-on learning centres; and whites and very light colours are good for areas that need lots of concentration and light. Soft pastels and other gentle hues, on the other hand, work well in reading areas and other low intensity activities. Decorations should follow the same pattern, with an additional emphasis on changing them often, and providing order around topics, projects, and themes.

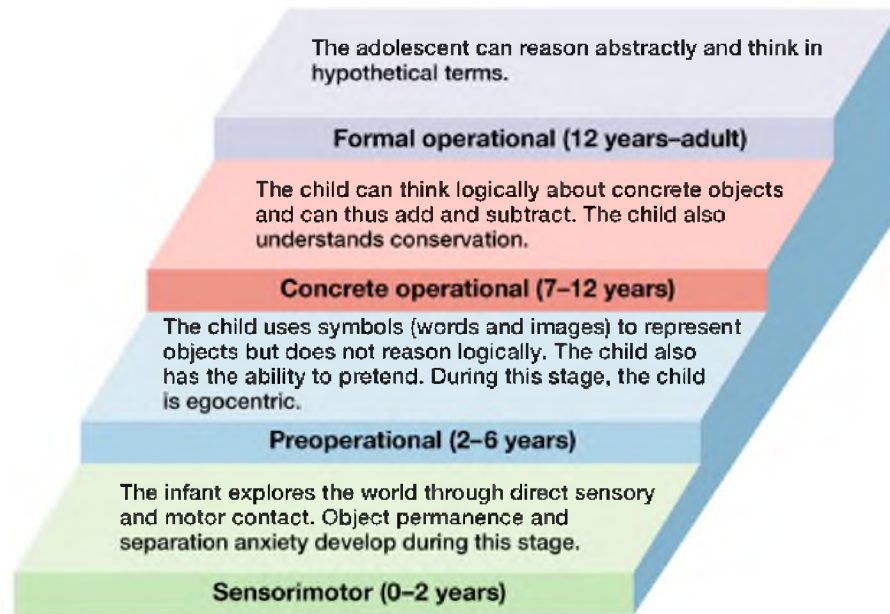


**b. Sensation and perception**

Sensation and perception are inter-related processes that are developed throughout the lifespan. Although they have a close relationship, sensation and perception have discrete qualities that differentiate one from the other. Sensation is defined as the process in which a sensory receptor is stimulated, producing nerve impulses that travel to the brain, which in turn interprets such impulses as a visual image, a sound, taste, odor, touch, or pain. The physical stimulus present in the environment emits energy that is absorbed by a sensory organ (known as transduction), causing sensation.

Perception refers to the occurrence when the brain performs organization of information it obtains from the neural impulses, and then begins the process of translation and interpretation. It is a vital process that helps us rationalize or make sense of the information related to the physical stimulus. Perception occurs when the brain processes information to give meaning to it, by means of emotions, memories. Sensation and perception are elements that balance and complement one another. They work together for us to be able to identify and create meaning from stimuli-related information. Without sensation, perception will not be possible.

Perception develops through information that is gathered from the senses, which allows children to make sense of their environment. As they grow, babies and young children learn to discern information from the environment that is significant to them. This ability to filter information helps children interpret and attach meaning to objects and events. Piaget's stages of cognitive development describe the development of perception as Figure 2.3.



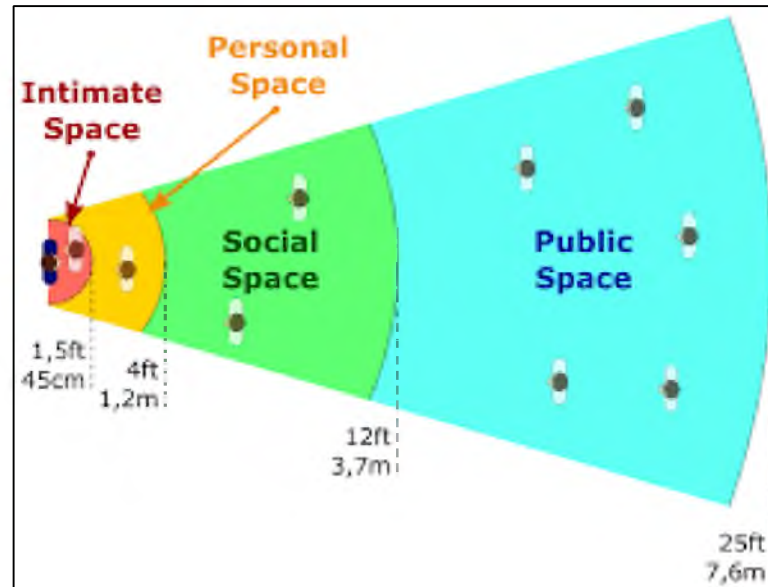
**Figure 2.4:** Piaget's stages of cognitive development describe the development of perception. (Source: Piaget 2001)

The sensorimotor stage occurs from birth to age 2. It is characterized by the idea that infants "think" by manipulating the world around them. This is done by using all five senses: seeing, hearing, touching, tasting, and smelling.

The preoperational stage occurs from age 2 to age 7. During this stage, children can use symbols to represent words, images, and ideas, which is why children in this stage engage in pretend play. A child's arms might become airplane wings as she zooms around the room, or a child with a stick might become a brave knight with a sword. Language development and make-believe play begin during this stage. Logical thinking is still not present, so children cannot rationalize or understand more complex ideas. Children at this stage are very egocentric, meaning they focus on themselves and how actions will impact them, rather than others.

The concrete operational stage occurs from age 7 to age 11. It is characterized by the idea that children's reasoning becomes focused and logical. Children demonstrate a logical understanding of conservation principles, the ability to recognize that key properties of a substance do not change even as their physical appearance may be altered.

as having to stare at another person for three or more consecutive seconds. Lastly, isolate behavior was playing by one self.



**Figure 2.5:** The distance of four different interaction

#### d. Kinesiology (movement)

Kinesiology is the science of exercise and movement for both coaching and learning of movements and sports and it is a mechanism of movement ( Shirl J, 2013). The Child Movement, Activity & Developmental Health Laboratory studies three areas of childhood development: motor skill acquisition, physical activity, and physical health and development in children.

Kinesiology is one kind of experiential learning, in which children acquire knowledge by doing and via reflection on their experiences, is full of movement, imagination, and self-directed play. Yet such learning is increasingly rare in early-childhood classrooms in the U.S, where many young children spend their days sitting at tables and completing worksheets. Kindergarten and preschool in the U.S. have become more and more academic, rigorously structuring kid's time, emphasizing assessment, drawing a firm line between "work" and "play" and restricting kids' physical movement. A study from the University of Virginia released earlier this year

found that, compared to 1998, children today are spending far less time on self-directed learning moving freely and doing activities that they themselves chose and measurably more time in a passive learning environment.

Movement allows children to connect concepts to action and to learn through trial and error. “If you walk into a good kindergarten class, everyone is moving. The teacher is moving. There are structured activities, but generally it is about purposeful movement (Nancy Carlsson, 2008). According to Nancy Carlsson (2008), in the classroom culture children are getting materials for an activity, they are going back and deciding what else they need for what they want to create, seeing how the shape of a block in relation to another block works, whether they need more, does it balance, does it need to be higher, is it symmetrical. All of these math concepts are unfolding while kids are actively building and moving.

Ben Mardell (2002), a professor of early-childhood education at Lesley University and the project director of the Pedagogy of Play initiative at Harvard’s Project Zero, observes that even when adults do incorporate play into learning, they often do so in a way that restricts free movement and agency. The role of play has been established not just as a part of learning, but as a foundation for healthy social and emotional function.



**Figure 2.6:** The science of exercise and movement of the children.

Play-based preschools and progressive schools (often with open room plans, mixed-age groups, and an emphasis on creativity and independence) are seeing increased popularity. Enrichment programs engaging children in movement with intention (yoga, meditation, martial arts) are also gaining traction (Lani Rosen-

Gallagher,2014).These kinds of methods seek to give children back some of the agency their young minds and bodies crave, as less play and mobility lead to an uptick in anxiety in ever-younger students and even, according to Durand, a growing number of cases of children who need to see occupational therapists. Mindfulness practices such as guided breath and yoga can help mitigate the core symptoms of ADHD in children, (an increasingly common diagnosis), while the arts encourage self-expression and motor-skill development.

In summary, the explained architectural theories are important and will be used as indicator and reference to support the study as well as help to design the framework in proposing for a better children center in the future. Nevertheless, understanding these theories is insufficient as there is a need to understand how to design environment for risk children as the focus of the study is street children. Next section will elaborate on this matter in depth.

#### **2.4 Environment for at risk children (street children in Chow kit)**

Environmental psychology is defined as a relationship on how the environment affects the behavior of its inhabitants. The main aspect for this study is by identifying a problem and through the identification of the problem the solution is discovered. Therefore, it is important for the study to be problem oriented.

Problem-oriented field is acquired research that consists of problems and solutions. The solutions can aid in making society function better as a whole and create a wealth of knowledge about the inner workings of societies. Environmental psychologist Harold Proshansky(1970) discusses how the field is also “value oriented” because of the field’s commitment to bettering society through problem identification. Proshansky (1970) discusses the importance of not only understanding the problem but also the necessity of a solution.

Environmental psychology addresses environmental problems such as density and crowding, noise pollution, sub-standard living, and urban decay. Noise increases environmental stress. Although it has been found that control and predictability are the greatest factors in stressful effects of noise; context, pitch, source and habituation are also important variables. Environmental psychologists have theorized that density and crowding can also have an adverse effect on mood and may cause stress-related illness. To understand and solve environmental problems, environmental psychologists believe concepts and principles should come directly from the physical settings and problems being looked at. For example, factors that reduce feelings of crowding within buildings include:

- i. Windows - particularly ones that can be opened and ones that provide a view as well as light
- ii. High ceilings
- iii. Doors to divide spaces and provide access control
- iv. Room shape - square rooms feel less crowded than rectangular ones
- v. Using partitions to create smaller, personalized spaces within an open plan office or larger work space.
- vi. Providing increases in cognitive control over aspects of the internal environment, such as ventilation, light, privacy
- vii. Conducting a cognitive appraisal of an environment and feelings of crowding in different settings. For example, one might be comfortable with crowding at a concert but not in school corridors.
- viii. Creating a defensible space

#### **2.4.1 Enhancement characteristic**

A carefully developed educational approach, philosophy and a good understanding of the target population, with its needs and priorities, is clearly imperative when developing an educational brief. So too is a good understanding of