

# **AFFORDANCES OF STREET ENVIRONMENT DURING CHILDREN'S HOME-SCHOOL JOURNEY IN OLD CITY ZONE OF MAKASSAR**

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## **ABSTRACT**

Home-school journey is part of children daily routine in many Indonesian cities and towns. Consequently, the street environment is an important component for children's growth and development. In the last two decades, many urban centers have been identified as unsuitable for children's home-school journey due to issues relating to high urban density and traffic congestion. Therefore, many children are denied the opportunity to experience the outdoor environment. Their life is centered at homes and within their schools. There are few studies that explore the affordances of street environment on home-school journey for less privileged children in old city zones. This study explores the affordances of street environment that influence children's play behavior and performance during their home-school journey. The elements and environment of home-school journey play an important role in promoting children's active free play toward their environment. This study observed 40 less-privileged children, aged 9 to 11, from low income families that walked to their schools in the old city zone of Makassar. Data on children's activities and their perceptual responses on the street environment during the journey were elicited using one method which was children's observation. The data were content analyzed using Nvivo software. The result revealed that the children displayed a variety of behaviors related to the social transaction, physical play and decision making. Affordances of street environment are associated with elements including buildings, vehicles and street furniture whereby the children's direct engagements lead to indirect learning. Therefore, middle-childhood children recognized that the street environment is part of their routine living experience.

## **1. INTRODUCTION**

Affordances of home-school journey are measure by its ability to support children's physical, social and cognitive development (Malone & Tranter 2003). The elements and environment of home-school journey play an important role to promote children active free play toward their environment. Most of children love to play in natural environment. Nonetheless, the children in urban area have less opportunity to play in natural environment (Chawla & Heft 2002; Malone & Tranter 2003; Chatterjee 2005; Veitch et al. 2010). These children from urban area end up playing around their school, home and their surrounding area.

In urban areas, most of children are carted to school reducing the number of children walking to school (Joshi et al. 1999). Generally, the children walks to school are come from poor families where they did not own any vehicle. Therefore, this study aimed to identify the affordances of street environment on home-school journey from less privileged children's perspective. These children usually do not go home directly after school ends. They usually make stopovers at the shop, playing or visiting their friends. Regular uses the street environment make children engage and familiarize as well as creating meaningful bond between children and the environment. Consequently, the street environment will be '*my place*' where children recognize it as their special place.

Children experience along their journey in the urban area may trigger three elements of children function. There are social, cognitive and physical element (Westman et al. 2013; Johnson et al. 2007). The development of children cognitive is an intellectual process as well as memorializing, attention and figuring out problems and making decision. Children's physical development is relevant to motor skill development such

as jumping, riding and running. The degree of participation in play activity among children can be describe by the children's maturity in social, physical and cognitive development (Hart 1979)

The mode of travelling in street environment is imperative to the children. Travelling in street environment is significant to the children's physical movement as well as helping them to distinguish their travelling route more effectively.

Based on pilot study, in old city zone, there many attributes and characteristic in the street. Such as traffic light, buildings, vehicle parking, gutters, electric poles, police patrol and some little trees.

## **2. LITERATURE REVIEW**

### **2.1. Level Affordances**

In relation to children's engagement with their environment, affordances have two levels: level potential and level actualized. The potential affordances level is refer to an infinite number of possible affordances of an environment or object (Kytta 2002). From preliminarily observation at old city zone of Makassar, the street environment has elements or object that the children perceived it as play equipment. The children play with gutter, electric poles, sand bar, vehicle parking. The children love to play in their home-school journey. The extend of potential affordances is define by individual's qualities, such as physical skills and bodily proportion, as well as social needs and intentions. The children go to school and back by walking with difference route.

The level of actualized have three types are perceived, utilized and shaped (Kytta 2002). Perceived affordances are what an individual recognizes when observing the environment. Utilised affordances are opportunities that exist and can be occupied through direct physical interaction with environment. Shape affordances involved the manipulations of environment features, which change the environment's properties either, function or form.

The affordances refer to the functionally significant properties of the environment. According to Heft's functional taxonomy of affordances in children's outdoor environment, as adult perceived the elements in the environment from aesthetic value, but children valued the elements, either the natural features or design feature, from its affordances and playability values (Heft 1988).

The children activities in home-school journey indicated the actualized affordances of the environment. The actualized affordances were the individual relationship with the environment (Kytta 2004) which occurred through movement and perception (Heft 1988). Kytta, (2002) categorized the actualized affordances into three types: perceived, utilized and shape.

### **2.2. Street Environment**

The phenomenon of accompanied travel to school has several important consequences. The journey to school is a major source of traffic at peak hours and ads

to congestion, accident and pollution (Royal Commission on Environmental Pollution, 1994). Such journeys also cost parents time (Gershuny, 1993) and deprive children of opportunity for regular exercise (Armstrong, 1993). A proactive idea in this area is Hillman's assertion that a prolonged period of escort to school and other destination is likely to hamper development of children's spatial skills, limit their knowledge of the environment and damage their growing independence (Hillman et al. 1990).

In old city zone, the street environment not only connects between two places, such as meet up with friends, playing, food trade, and parking. For children who lived in old city zone, the streets are usually they used for their activities. Physical and visual contact and social life can be the experiences of children's everyday live throughout in the street environment. The children can a lot of experiences on their journey. The street has potential as a place for children to learn and play.

### **2.3. Children's Experience of Place**

Children experience the many attributes that make a place that is important for a child's play environment (Hart, 1979). They are commonly seeking opportunities to demonstrate their behavior to develop and skills (Eccles, 1999). The desire encouraged the children to play in complex, challenging and exciting environment. It was due to their strong feeling of competence and sense of confidence. Therefore, children can develop their sense of competence among their friend through play.

## **3. METHOD**

This study was conducted at four elementary public schools in Wajo area as old city zone of Makassar, Indonesia. Frequency of walking activity in old city zone is high, where it has higher density of landuses (Imriyanti & Ishak, 2010). Hence, there is a need pedestrian facility in term of safety and comfort to enable children's sense of attachment and value.

This study focus on children in range of age 9-11 years old that middle childhood. Middle childhood age is a time when children going to school without accompanied by an adult (Joshi et al. 1999) and free active to play (Veitch et al. 2010). In old city zone, the children who walk to school and back are those come from poor family's background (BPS & Social Department Indonesia, 2003). These are family usually does not own any vehicle at home hence they have to walk to school.

The participatory method was used to explore the affordances of street environment. The children had observing at ranger from their home to school as well as their back from school. The home-school range is referring to territory that surrounds their home-school which provides a context for independent mobility, play and exploration (Spencer & Blades 2006). The

observation on children plays due to their movement, element that they encountered around the street environment along their journey. These children had followed in order to observe their movement as well as their activities along their journey. Video camera had used in this observation to document the children's activities. These data were content analyzed using Nvivo software.

#### 4. RESULTS, DISCUSSION AND CONCLUSION

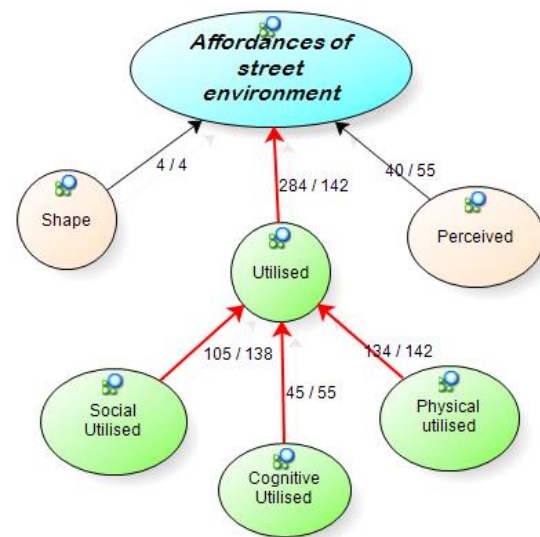
The affordances refer to the functionally significant properties of the environment. The children go to school and back by walking with difference route. They back from school with the distance and takes time much longer than go to school. The reason is they can play together with their friends along their journey as well as they have carried a big bag school. (See figure 1)



Figure 1: The children have bodily proportion and actualize affordances

According to Gibson (1979), affordances of an environment are associated with element which offer or provide the user and it is perceived through direct action connected with indirect learning process. The other words, that the element or objects are considered as an opportunity for action as functional value. The objects offered for grabbing, twisting and lifting. On home school journey in old city zone, there are some objects that can be utilized affordances of children perception. In old city zone, the street environment have found element that the children perceived it as play equipment. There are gutter, electric poles, sandbar, parking area. They grab and twisted around the electric poles with one hand while they jumping on the gutter, they do during back from school.

The affordances of street environment have found that the utilized affordances have three elements, which are physical, social and cognitive.



Nowadays, the children usually spend their time at outdoor environment, such as street environment in old city zone. The street environment has been recognized as key setting to promote and to contribute to children's physical, social and cognitive development. Street environment is an outdoor environment to learning and socialize for children.

However, there were less activities that involved productivity performance which are creating new thing from street environment due to the time constraints. From children's perspective that street environment is a popular space as playground and meet up with their friends and they thought that street is safe to do their activity.

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