

**UNIVERSITI TEKNOLOGI MARA**

**RELATIONSHIP OF PHYSICAL  
ENVIRONMENT OF PUBLIC  
PRESCHOOL CLASSROOM ON  
CHILDREN'S SOCIAL INTERACTION  
BEHAVIOUR AND SPATIAL CHOICE**

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Thesis submitted in fulfillment  
of the requirements for the degree of  
**Doctor of Philosophy**

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## AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

A strong emphasis is put on preschool education programme by the Malaysian Ministry of Education (MOE). However, it leans more towards the non-physical rather than the physical aspects of preschools. There is a scarcity of local reference on children's environment-behaviour studies, notably on the physical environment of preschool classroom and spatial behaviour. Therefore, this research aimed to investigate this relationship. The objectives of this study were to identify the current state of the physical environment of public preschool classrooms (through the teachers' perceptions) and to establish the types of social interaction behaviour that the children engaged in (during free play) in their classrooms as located both in urban and non-urban areas. Their spatial choices were also observed. The preschool classrooms were spatially categorised into highly, moderately and poorly defined through the experts' opinions survey. This study used the mixed method approach of questionnaire surveys and unobtrusive, non-participating observation and behavioural mapping methods. The questionnaire was adopted from Moore's (1994, 2008) Children's Physical Environment Rating Scale (CPERS) which was administered to 330 preschool teachers who attended a series of MOE workshops. The observations found that there exists five types of social interaction behaviour and spatial choices that 494 children aged 5 to 6 years old engaged in during free-play periods in their classrooms in 20 public urban and non-urban preschools in the state of Selangor. The spatial-definition of classrooms in both locations was acquired through a directly distributed questionnaire survey to 40 interior architects. The scope of the research deduced for this study contained three issues: Firstly, choice of government funded preschools was due to accessibility, consistency in classrooms' size and number of children, quality of the teachers' academic background and standardized status of socio-economic group. Secondly, choice of free-play engaged during snack-time or recess time was due to absence of their teachers' instructions and that the children would depict their behaviour in a more honest way. Finally, the study was done in preschools located in both urban and non-urban areas so as to get a comparative picture. The findings revealed that the teachers were highly aware of the importance and influences of the environment on the behaviour of children. In addition, the spatial definition of the classrooms were found to be a mixture of well-defined, moderately-defined and poorly-defined. Nevertheless, the opined majority from the experts were moderately-defined. Inappropriate behaviours occurred most in poorly-defined classrooms, whereas appropriate and interactive behaviours occurred most in well-defined classrooms. The spatial choices of children within their classrooms in both locations revealed similar patterns whereby both gender preferred large and open spaces when they played in big groups. The findings from this research would assist designers in understanding the influence of the physical environment on the social interaction behaviour of children and thus would significantly contribute to increased benefits towards interior architects when designing preschools classrooms.

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# **CHAPTER ONE**

## **INTRODUCTION**

This chapter introduces the study at hand and discusses the background, problem statement, aim, research questions, objectives of the study, limitations, scope, research design, and significance of the study and structure of the thesis.

### **1.1 ABOUT THE RESEARCH TITLE**

The quality of the designed physical environment in preschools have had a significant influence on the development of children's social behaviour, consequently affecting the children's maturity and intellectual proficiency. This research investigated the effect of the designed physical environment of classrooms in public preschools located in both urban and non-urban areas on children's interaction, social behaviour and spatial choices.

### **1.2 BACKGROUND**

This study is conducted to enrich the field of research relating to the physical environment for children within public preschools in Malaysia. This study would also help establish a better understanding of how a preschool's space-planning and physical environment of their classrooms would affect children's behaviour, most notably with regards to their social interactions and spatial choices.

Therefore, this study is to identify the children's social interaction behaviour during their scheduled free-play period since, according to Bredekamp (1990, 2004), free-play periods are typical preschool activities characterised by child initiated engagement and social interaction. Moreover, learning through play is one of the strategies required in the National Preschool Curriculum (CDC, 2008).

It is essential that the interior designers and architects understand the implications of their design on the behavioural developments of children. They need to be made aware of and understand the influences of the physical environment,