

“WHOLE-SCHOOL ENVIRONMENTAL MAPPING FRAMEWORK” IN  
PREVENTING CHILDHOOD OBESITY IN SELANGOR

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## ABSTRACT

The prevalence of obesity and overweight has increased worldwide more dramatically with a large variation in trends across countries. Nowadays, factors that mostly lead to obesity among children are diet intake, sedentary lifestyles and environmental factor. The school environment is one of national concern regarding the increase number of overweight and obesity among children. Therefore, a study was conducted to identify the school environmental factors (physical, economic, political and socio-cultural) on healthy eating and physical activity and, to determine Body Mass Index (BMI) of urban and rural primary school children. Accordingly, the study was conducted in 60 randomly selected schools in Selangor, 30 from urban and 30 from rural area. The data of BMI was collected from children's report card and by measurement of weight and height. Further, data was collected by interviewed school representative face by using a whole school mapping questionnaire and observation of the school environment. Based on the findings, it showed that both rural and urban school comply toward physical environmental mapping with the percentage of compliance score 65.2% and 73% respectively. Meanwhile, for economic environmental showed both rural and urban school did not comply toward economic environmental mapping with the percentage of compliance score 24% and 37% respectively. Also, schools in rural and urban areas do not comply with the political environment, 59.4% and 55% respectively. In addition, only urban school demonstrated compliance toward socio-cultural environment, 70.7%, and rural schools indicated percentage of compliance score of 49.4%. In term of BMI, the highest percentage for both rural and urban school was the ideal category, 38.1%. Whereas, the lowest percentage was came from the underweight category, which 10.2%. Nevertheless, the combination of both percentages of overweight and obese students was higher than the percentage of ideal BMI, which contribute to 51.7%. In general, the findings indicate that the percentage of overweight and obesity among children is high and of concerned. Therefore, it is recommended that further study needs to be done and to emphasise the level of physical activities and healthy eating practices in preventing childhood obesity

## TABLE OF CONTENT

		<b>Pages</b>
<b>DECLARATION</b>		ii
<b>ACKNOWLEDGEMENT</b>		iv
<b>ABSTRAK</b>		v
<b>ABSTRACT</b>		vi
<b>TABLE OF CONTENT</b>		vii
<b>LIST OF FIGURES</b>		xi
<b>LIST OF TABLES</b>		xi
<b>ABBREVIATIONS</b>		xiii
<b>CHAPTER I</b>	<b>INTRODUCTION</b>	
1.1	Background of Study	1
1.2	Problem Statement	3
1.3	Significance of Study	4
1.4	Research Objective	5
	1.4.1 General Objective	5
	1.4.2 Specific Objectives	5
1.5	Research Questions	6
1.6	Conceptual Framework	7
1.7	Definition of Terms	8
<b>CHAPTER II</b>	<b>LITERATURE REVIEW</b>	
2.1	Introduction	10
2.2	Consequences of Childhood Obesity	11
2.3	ANGELO Framework	13
	2.3.1 Physical Environmental Mapping	13
	2.3.1.1 Healthy Eating	13
	2.3.1.2 Physical Activity	15
	2.3.1.3 BMI	17
	2.3.2 Economic Environmental Mapping	18
	2.3.2.1 Healthy Eating	18
	2.3.2.2 Physical Activity	21
	2.3.2.3 BMI	22

## CHAPTER 1

### INTRODUCTION

#### 1.1 BACKGROUND OF STUDY

In Malaysia, the escalating prevalence of obesity and overweight among children seen over the last few decades has become a national concern. According to a statistic by WHO (2007) indicated that 30.9% of children in Malaysia were overweight and 3.3% were obese, thus the prevalence of overweight/obesity in Malaysia was 34.2% (Wee et al., 2011). A deeper understanding of the factors and determinants influencing obesity among children will ultimately assist successful intervention. Nowadays, factors that mostly lead to obesity among children are diet intake, sedentary lifestyles and environmental factor (Han, Lawlor, & Kimm, 2010). There is increasing acknowledgment of the influence of local environments on children's health-related behaviour and school environment is one of concern regarding the increase number of overweight and obesity among children. This is because schools represent a key environment in which children stay over a sustained period of time. Moreover, schools not only act as institutions that emphasise on academic accomplishment, but it also accentuates a particular value and prospects of the child through the school culture's influence.

There is evidence to suggest that the school environmental factor has an independent effect toward health-related behaviour of children and school culture may have a significant impact toward the emergence of childhood obesity through their influence on eating pattern and physical activity level of the children. For instance, high fat food and sugar-sweetened beverages serve as a classic example. According to