

## MASTER'S THESIS

### The use of pedometer and physical activity log in assessing physical activity of school children

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THE USE OF PEDOMETER AND PHYSICAL ACTIVITY LOG IN ASSESSING  
PHYSICAL ACTIVITY OF SCHOOL CHILDREN

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## ABSTRACT

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The purpose of the study was to examine the physical activity of the Hong Kong junior secondary school children. One hundred and forty-four Form one to Form three children (12 females and 12 males from each form) were surveyed. The subjects' ages ranged from 12 to 15 years old. The physical activity log and pedometer were employed as the survey tools to assess the physical activity. The total time reported from the log of individual categories was ranked as follows: overall ranking, the day of the week, school district, gender, and age groups (12-13 & 14-15 groups). The overall agreement of the ordinal rank orders of the physical activities among individuals was tested by the Kendall Coefficient of Concordance ( $W$ ), a nonparametric test of associations for more than two rankings. A 2x2x2x3 ANOVA with repeated measures was used to test the differences of the pedometer readings of the following: district (urban/rural) (2 levels), gender (2 levels), age (12-13 & 14-15) (2 levels), and activity day (weekday with PE class/ weekday without PE class/ weekend) (3 levels) (repeated measures). This was followed by the Newman-Keuls tests for the main effect with 3 levels. The results indicated that there is a significantly ( $p < .05$ ) different agreement in the rank order of physical activities measured by a physical activity log within different days, districts, genders, and age groups. The pedometer readings showed that both urban and rural subjects were significantly ( $p < .05$ ) more active on weekdays with a PE class than weekdays without a PE class and weekends. Rural subjects were shown to be significantly ( $p < .05$ ) more active than urban subjects. It was also found that males were significantly ( $p < .05$ ) more active than females. However, no significant ( $p < .05$ ) difference in pedometer readings was found between the two age groups.

## TABLE OF CONTENTS

	Page
ABSTRACT.....	i
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	v
LIST OF FIGURES.....	viii
CHAPTER	
1. INTRODUCTION.....	1
Statement of the Problem.....	2
Hypotheses.....	3
Definition of Terms.....	5
Delimitations.....	6
Limitations.....	7
Significance of the Study.....	8
2. REVIEW OF LITERATURE.....	11
Introduction.....	11
Physical Activity.....	11
Physical Activity and Cardiovascular	12
Disease.....	
Physical Activity and Age.....	13
Physical Activity and Gender.....	14
Assessment of Physical Activity.....	14
Pedometer.....	15
Physical Activity Log.....	18
Summary.....	20
3. METHOD OF STUDY.....	22
Sample.....	22
Measuring Instruments.....	22
Procedures.....	24
Pilot Study.....	24
Data Collection.....	24
Method of Analysis.....	25
4. ANALYSIS OF DATA.....	27
Data Processing and Statistical Analyses.....	27
Demographic Data of the Subjects.....	27
Analysis of Physical Activity Log.....	33
Rank Order of Mean Time Spent on Individual	

Physical Activities.....	33
Analysis of Overall Agreement of the Rank Orders of Physical Activities.....	44
Analysis of Pedometer Readings.....	50
Discussions.....	66
Demographic data of the Subjects.....	66
Physical Activity log.....	69
Pedometer Readings.....	74
5. SUMMARY AND CONCLUSIONS.....	78
Summary of Findings.....	80
Demographic Data of the Subjects.....	80
Physical Activity Log.....	81
Pedometer Readings.....	82
Conclusions.....	83
Recommendations for Further Study.....	85
BIBLIOGRAPHY.....	86
APPENDICES.....	94
A. Informed Consent.....	94
B. Physical Activity Log.....	95