

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 $2 \times 2 \times 2 \times 3$ 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.

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