

# The Jump Rope for Heart Project: An Education Programme for Hong Kong School Children

## 跳繩樂齊齊學 - 健康教育計劃

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### Abstract

The primary objectives of this project are twofold: First, to enrich the learning experiences of the Hong Kong school children in health and physical education through a comprehensive rope-jumping programme. Second, to promote and maintain cardiovascular health among the Hong Kong school children through the active participation in rope-jumping activities. The target population for this project will be student of ten primary schools (P.4-P.6) and ten junior secondary schools (S.1 - S.3) in the territories. About 2,500 male and female students aged 9-14 will be included. The project will be implemented between September 1999 and March 2001. Under this project, an educational package including video series and handbooks on nutrition, exercise, and fitness will be developed in assisting school physical educators to promote a healthy lifestyle to their students. By inserting this proposed project into the present physical education curriculum, physical educators will find necessary philosophy, strategies, and pedagogical models to incorporate health and fitness education into a well-balanced school physical education curriculum. All in all, it is most important to develop a comprehensive and quality physical education programme which integrates appropriate physical activities, concepts, and value leading to healthy lives throughout a child's experiences in the home, school and community.

### 摘要

本計劃主要目的為：一. 透過一項綜合性的跳繩活動計劃來增加香港學童在體育教育方面的學習經驗。二. 通過參與跳繩活動向香港學童推廣保持心肺健康的信息。是項計劃對象為二千五百名年齡介乎九至十四歲之中（中一至中三），小（小四至小六）學男女學童。計劃於一九九九年九月至二零零一年三月期間進行。為協助學校體育教師向學生推廣健康生活的意識，此計劃特別設計了一套完備的教材：包括營養、運動和體適能教學手冊及錄影帶。

### Background

In September 1997, the Hong Kong Special Administrative Region Government issued the *Education Commission Report No. 7 - Quality School Education* indicating that "Much of Hong Kong's success is attributable to our exposure to a mix of Chinese and Western cultures and diverse educational opportunities and our education system should aim to foster among our youngsters an all-round development covering ethics, the intellect, the physique, social skills and aesthetics" (p.8). Children are this country's most treasured possessions. They are the key to the coming generations leading healthy and productive lives. Unfortunately, many children are found to be unfit and inactive in Hong Kong (Chan, Li, Hong, & Leung, 1998; Lindner, 1998) which might

become a major constraint preventing them from having a prosperous future. Additional studies showed that Hong Kong children are less physically fit when comparing with children in other neighbor countries (Eston, Ingledew, Fu, & Rowlands, 1998; Hatano, Hau, Lu, Fu, Zhi, & Wei, 1997). Johns and Ha (1998) recorded extremely low patterns of passive behaviors by school children, observed during discretionary time at home and school recess. Further study was substantiated by MacFarlane (1997) who discovered that less than 4% of Hong Kong primary aged children were capable of maintaining light to moderate physical activity for twenty minutes. These extremely low amounts of physical activity of Hong Kong school age children can be attributed to the lack of opportunity to participate in a daily physical activity program (Johns & Ha, 1998; MacFarlane, 1997).

From a medical and health perspective, Chan, Hazlett, Wong, and Chao (1995) found that one of the most common physical problems of the Hong Kong school children is obesity. The pattern of dietary and activity of children are the dominant reasons for this phenomenon (Leung, Ng, Tan, Lam, Wang, Xu, & Tsang, 1994). At present, over six million people live in the confines of the small territory of Hong Kong and most of them are accommodated in densely populated housing complexes consisting of high rise apartment blocks. Not only is the lifestyle confined in terms of the lack of recreational and playground space but changes in dietary behaviors have brought about a dramatic lifestyle change. The sedentary lifestyle has increased the risk of heart disease manifested by higher serum cholesterol levels and higher intakes of fat (Leung, et. al., 1994).

According to Sallis, Patterson, Buono, & Nader (1988) that young adolescents should minimally participate three 20 minutes session of moderate to vigorous physical exercise weekly in order to be fit and healthy. Unfortunately, daily physical education classes are not the norm in the Hong Kong school curriculum (Morris, 1995) and moderate to vigorous physical activity levels are seldom attained. At present, only two 30 minutes or one 70 minutes session is assigned to physical education in the Hong Kong school curriculum which makes it harder to achieve the recommended standard. It is widely accepted that proper exercise and nutrition habits can be established early and such habit will influence individuals throughout their lives. An understanding of desirable exercise and nutrition habits can help students make positive choices as they progress through the life cycle. Current evidence strongly supports the value of regular physical activity and proper eating habits in preventing and treating coronary heart disease, hypertension, immune disorders, depression, and anxiety (Kohl, & McKenzie, 1994; Landers, & Petruzzello 1994; Nieman, 1994; Shephard, 1981; Shephard, 1994a; 1994b; Surgeon General Report, 1996).

When discussing the values of regular exercise and healthy dietary pattern, the American Heart Association (AHA) highly recommends the benefits of Jump Rope for Heart (JRFH) Program for school children. The mission of JRFH, according to the AHA, is to help fight the heart disease. Schools and professionals such as special physical educators, regular physical educators and recreation specialists benefit from the use of the educational instructional materials designed to promote health-related physical fitness concepts. Over the last decade, JRFH program has been proved to be effective for school children in developing healthy lifestyle in North America, New Zealand, Australia, Singapore, and Japan. According to Adams (1990) and Kowalski (1996), the benefits of rope jumping include: i) strengthening cardiovascular and muscular endurance, ii) developing motor skills and coordination and ultimately, iii) enhancing a child's body image and self-

confidence. To many students, a jump rope unit means getting exercise, having fun, learning new tricks and re-enforcing old friendships. In addition, rope jumping is inexpensive, portable, safe, easy to learn and no special facilities or weather conditions are needed (Solis, 1992).

Over the years, the responsibility for delivering the knowledge of being active and healthy is assigned to the school physical educators, whom it is assumed will provide an adequate and well-organized program of instruction (Ha & Johns, 1998; Ha, Johns, & Fung 1999). Thus, it is an opportune time for physical educators to reflect their instructional strategies and content in order to enhance quality physical education for the local children. Therefore, the purpose of this project is to design a Jump Rope For Heart Program specially suitable for Hong Kong teaching situation, and to assist primary and junior secondary physical education teachers to promote active and healthy lifestyle for their students.

## **Aims and Objectives**

The major aims of the project are twofold: (1) to enrich the learning experiences of the Hong Kong school children in health and physical education through a comprehensive rope-jumping programme; (2) to promote and maintain cardiovascular health among the Hong Kong school children through the active participation in rope-jumping activities.

The specific objectives of the project include the followings:

- (1) To develop a package of teaching materials including video series and hand book for primary and junior secondary school teachers.
- (2) To design a student-parent portfolio to encourage children how to maintain cardiovascular health by instructing them in nutrition, exercise and fitness concepts.
- (3) To arouse parents' concerns about their children's health and fitness status.
- (4) To develop students' motor skills and coordination through rope jumping.
- (5) To enhance children's body image and self-confidence through proper dietary habits and active lifestyle.

## **Targets and Beneficiaries**

Twenty in-service physical educators and their students aged 9-14 will participate in this project. Through the "Jump Rope for Heart Programme", it is hoped that cognitive benefits of this programme, which include knowledge of nutrition, health, and lifetime fitness, can help teachers to promote students' habitual physical activity and healthy dietary habit in school and during discretionary time. Ultimately, the knowledge about the exact nature of the relationship between school physical education and

lifetime health will be greatly fostered among school administrators, physical educators, students and their parents.

### Activities to be Organized

Prior to commencing the Jump Rope for Heart Programme at schools, physical education teacher involved will be required to attend a series of workshops on the implementation of the programme. Workshops of "A Healthy **"H.E.A.R.T."** (Habits of Eating, Activity and Reducing-risks Together) programme will compose of the following themes:

- (a) The Role of Physical Education in the Development of Active Lifestyles
- (b) Healthy Lifestyle - Living Patterns of the Hong Kong Children
- (c) Nutrition - Eating Habits of the Hong Kong Children
- (d) Exercise and Fitness - Benefits of Being Active
- (e) Being Active through Rope Jumping - This part will be assisted by the Hong Kong Rope Skipping Association.

### Expected Outcomes and Deliverables

With the implementation of the "Jump Rope for Heart Programme", it is expected that the project can assist primary and junior school physical educators to promote students' habitual physical activity and healthy dietary habit in school and during leisure time. While the knowledge about the exact nature of the relationship between school physical education and lifetime health is strongly emphasized among school educators, physical educators, students and their parents, a healthy and active generation will be nurtured ultimately.

This project will finally produce the following materials for local schools as an alternative educational information leading to quality physical education:

- A package of teaching materials including video series and hand book about active and healthy lifestyle for primary and junior secondary school teachers.
- A student-parent portfolio including how to maintain cardiovascular health by instructing them in nutrition, exercise and fitness concepts.
- A rope-jumping school curriculum including teaching handbook and video-tape.

### Innovation

In the past decades, the major emphasis of school physical education has been on competitive sports, beginning as early as primary four continuing throughout secondary school. This sport-focused use of the resources devoted to physical education programmes and interscholastic athletics is increasingly being

questioned by health and physical education professionals all over the world (De Knop, 1998). Today, many children eat foods high in fat, sugar and sodium, and are more likely to be obese than their counterparts in the past. Furthermore, they are less physically active than were children in past generations. To reverse these trends, teachers, parents and community members need to help our children to modify their health habits so they can meet the demands of the next century. As an educator, one must consider reforming and supplementing the current physical education curriculum to help attain this goal. This proposed "Jump Rope for Heart Programme" has been proven to be successful by schools in North America, Australia, New Zealand, Japan, Singapore, and other European countries. The programme focuses on instructing students in nutrition, healthy lifestyle and being active through challenging and fun rope-jumping activities, in which, students can find their own measure of success. "Jump Rope for Heart Programme" is an innovative idea that goes beyond the boundary of the school physical education curriculum by nurturing a healthy and active living style throughout the life span of the children.

### Teacher/School Development

The practical and easy-to-use format of this programme will help teachers implement fitness education throughout their physical education curriculum immediately - both in and out of the school setting. By inserting this programme into the present physical education curriculum, physical educators will find necessary philosophy, strategies, and pedagogical models to incorporate health and fitness education into a well-balanced school physical education curriculum. For school administrators, it is most important to develop a comprehensive, quality physical education programme which integrates developmentally appropriate physical activities, concepts, and values leading to healthy lives throughout a child's experiences in the home, school and community.

### Potential for Wider Application and Implementation

At the end of the implementation of the programme, the following materials would be developed for wider application and implementation by Hong Kong primary and secondary schools:

- package of teaching materials including video series and teaching handbook.
- A student-parent portfolio including how to maintain cardiovascular health by instructing students and parents in nutrition, exercise and fitness concepts.
- A rope-jumping school curriculum including teaching handbook and video series.

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