

RESEARCH PROJECTS

Quality School Improvement Project - Matching Fund

✉ CHIU Chi Shing • LO Nai Kwai Leslie (Educational Administration & Policy) • WONG Hin Wah • CHUNG Yue Ping Stephen (Educational Administration & Policy)

☐ 1 November 2004

❖ Participating schools

This “project” is under the umbrella of the “Quality School Improvement Project” (QSP). In our professional opinion, the project required matching fund to ensure top quality (far exceed the requirement by the EMB-HKSAR). The fund is used to top up expenses not fully budgeted / not budgeted in the QSP. Our vision is to become the stronghold for school development in Hong Kong and the Greater China Region in the next five years.

(ED04758)

兩岸三地高校語文教育比較及課程體系研究 A Comparative Study of Language Education and Their Curriculum Structures in Higher Education of the 3 Regions Across the Strait

✉ 崔晶盈 CHUI Ching Ying

☐ 1 September 2004

❖ Department of Education, Hu Bei Province

本研究計劃主要研究，在經濟全球化及與國際教育接軌的宏觀背景下，香港、臺灣、大陸三地高校語文教育比較，並在此基礎上，結合內地高教情況作具體分析，提出適應內地高校語文教育改革的方向。

具體研究內容如下：

- (一) 經濟全球化對高校語文教育的挑戰。
- (二) 與國際教育接軌的臺灣、香港高校語文教育研究
- (三) 大陸高校語文教育發展及現狀研究
- (四) 兩岸三地高校語文教育比較研究
- (五) 適應經濟全球化的大陸高校語文教育改革研究

(ED04339)

The Impact of Wearing a Face Mask in a High-Stakes Oral Examination: A Hong Kong Post - SARS Study

✉ CONIAM David

☐ 15 November 2004

❖ CUHK Research Committee Funding (Direct Grants)

This talk describes a study which emerged from the SARS crisis, the aftermath of which was that all personnel in all educational institutions in Hong Kong were compelled to wear face masks for the period April-August 2003. Consequently, the Grade 11 HKCEE English language oral test was conducted with all test takers and oral examiners wearing face masks. The proposed study will therefore examine the effect that wearing a face mask has on a test taker’s oral test score. The study will be conducted by administering two versions of a past HKCEE oral test to the whole cohort of Grade 11 students in a mid-ability-band school in Hong Kong. The study’s two hypotheses are that firstly, the wearing of a face mask will influence raters’ judgments in the oral test. Test takers sitting the oral test with face masks will score significantly lower than when not wearing a face mask. This will be investigated through the test data results. The second hypothesis relates to the

extent to which the alterations in signals affect raters' judgments in that their ratings are the wearing of a face mask causes both audibility problems and to restricted understanding of test takers' emotions. This will be investigated by questionnaire and interview data. If these two hypotheses are proven, the significance of the study lies in public examination bodies having to seriously to consider the conditions under which oral tests may be administered - if such tests are to provide reliable results.

(ED04819)

Education for Sustainable Development in Primary Schools

✉ LEE Chi Kin John • LAM Kin Che (Geography & Resource Management) • YU Jimmy C. (Chemistry) • CHIU Siu Wai (Biology) • YIP Din Yan • LAM Wing Po (Faculty Office of Education) • TANG Mei Sin*

□ 1 August 2004

❖ Sustainable Development Fund, HKSAR Government

Education for sustainable development or sustainability education has been an important orientation of environmental education in the 1990s. The UN has declared 2005 to 2014 as the Decade on Education for Sustainable Development (DESD). It is notable that the primary school years are the period for the formation of fundamental environmental knowledge, attitudes and behaviours.

The objectives of the project are: (a) to provide teaching and learning web-based resources for the school-based curriculum development framework for sustainable development education proposed by the Curriculum Development Institute of the Education & Manpower Bureau; (b) to heighten the awareness

and knowledge of teachers, students, parents and community helpers in issues related to sustainable development education; and (c) to help empower the students in community problem solving and environmental improvement.

It is planned that twenty-five project primary schools would be participated involving their teachers, students and parents. Partnership will also be fostered between schools and university. Collaboration with the government, the Council for Sustainable Development and other non-governmental organizations would be sought. Within the Chinese University of Hong Kong, colleagues from the Faculty of Education, Social Science and Science would work together and university students from different faculties would be encouraged to participate in the Project by acting as tutors and coaches for students in primary schools.

Training sessions would be provided to teachers and student leaders / environmental ambassadors from the Project schools as well as university students on key issues of education for sustainable development, community problem solving and environmental improvement. The training sessions and seminars would also invite the participation of teachers from other schools and community helpers on a first-come-first-served basis. This project also plans to build a web-site for teachers to design and implement their own school-based environmental education curriculum for sustainable development.

(ED04458)

Student Leadership Development - 4Cs (Creativity, Critical Thinking, Caring and Commitment)

✉ LEE Chi Kin John • CHAN Wai Ock David (Educational Psychology) • HA Sau Ching Amy (Sports Science & Physical Education) •

CHENG Hon Man Roger (Educational Administration & Policy) • CHENG Kin Yee Daniel (Ctr for University & School Partnership) • CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership) • KO Mo Lin Regina (Ctr for University & School Partnership) • MAK CHAN Shuk Yin • SZE Man Man Paul • TSE Kwan Choi (Educational Administration & Policy)

- 1 September 2004
- ❖ 29 Project Schools & 30 Associated Schools (Matching Fund) • Quality Education Fund, HKSAR Government

Objectives of the Project:

1. To help nurture students' leadership skills and qualities in terms of 4Cs (Creativity, Critical Thinking, Caring and Commitment) and provide opportunities for students to display these skills and qualities in school and community settings.
2. To develop teaching and learning packages on student leadership for school adaptation in their formal curriculum.
3. To train principals and teachers on the theories and practice of student leadership.
4. To establish a university-school-government partnership network for dissemination of experiences and good practices on student leadership.

About 30 schools (15 secondary and 15 primary schools) will be recruited to join the project. Another 30 schools will be invited to join the project as associated schools.

(ED04441)

School & University Partnership for Educational Renewal Project (SUPER Project) (2004-05)

✉ LEE Chi Kin John • CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership)

- 1 September 2004
- ❖ 26 schools (SUPER project)

In the school year 2004-05, there are 19 primary schools and 7 secondary schools joining the School & University Partnership for Educational Renewal (SUPER) Project.

The objectives of the Project are:

- To facilitate the development of school-based curricula and action plans which help realise the aims of education.
- To enable students to gain more varied learning experience and develop more positive attitudes toward learning

The objectives are reached through various activities and programmes, such as school-based workshops, teaching inquiry, on-site support, stock-taking and study tour.

(ED04677)

Partnership for Improvement of Learning and Teaching (PILT)

✉ LEE Chi Kin John • CHAN Wai Ock David (Educational Psychology) • CHEUNG Sin Pui • CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership) • CHUI Ching Ying • HA Sau Ching Amy (Sports Science & Physical Education) • HUI Sai Chuen (Sports Science & Physical Education) • CHENG Hon Man Roger (Educational Administration & Policy) • HUNG Fan Sing (Educational Administration & Policy) • KO Mo Lin Regina (Ctr for University & School Partnership) • LAM Chi Chung • LAM Ka Ka (Educational Administration & Policy) • LAU Siu Ying Patrick (Educational Psychology) • LAW Huk Yuen • MA Hing Tong (Ctr for

University & School Partnership) • MAK Se Yuen • NI Yujing (Educational Psychology) • PUN Sai Wing • SZE Man Man Paul • TAM Wai Ming Frank (Educational Administration & Policy) • TSE Kwan Choi (Educational Administration & Policy) • WALKER Allan David (Educational Administration & Policy) • WONG Heung Sang Stephen (Sports Science & Physical Education) • YIP Din Yan

□ 1 December 2004

❖ 200 Project Schools (40 Project Schools per year) (matching fund)

Features of the Project:

1. Improving the quality of learning and teaching through Key Learning Areas (KLAs) and/ or cross-curriculum initiatives.
2. Providing professional support to junior secondary schools as the main focus and empowering teachers to prepare for the challenges of senior secondary curriculum reform, e.g. teaching of Liberal Studies. Support will also be given to primary schools and special schools in General Studies, project learning and curriculum integration.
3. Cluster schools with similar needs for sharing of experiences.
4. The project team includes university scholars, school development officers (SDOs) and external frontline experts. Team members will collaborate and share experiences with SDOs of Regional Education Offices (REO) for concerted efforts towards school development.

The Project will provide professional support to 40 schools per year for 5 years.

(ED05755)

LEAD: Leading Through Engineering, Art and Design Pilot Project

✉ LEE Chi Kin John • XU Yangsheng (Auto. & Computer-Aided Engin.) • MAK Se Yuen • PUN Sai Wing • LEE Ka Keung Caramon (Auto. & Computer-Aided Engin.)

□ 2 February 2005

❖ The Hong Kong Federation of Youth Groups via The Hong Kong Special Administrative Region Government

This project is launched by The Hong Kong Federation of Youth Groups (HKFYG), in collaboration with Massachusetts Institute of Technology (MIT) Media Laboratory and Faculties of Engineering and Education at The Chinese University of Hong Kong (CUHK). The aim of this special project is to make learning through technology a fundamental part of education. It will help establish a foundation of creativity based on new technologies, encouraging young people to explore the world of design and invention through imagination, realization, experimentation, feedback and evaluation.

Objectives of the Project:

1. Introduction of MIT Media Laboratory Innovative Technologies to Hong Kong
2. Advocacy of the Application of Innovative Technologies in Hong Kong
3. Paving the Way for Future Research, Development and Application in Hong Kong

The LEAD Pilot Project is introduced to 7 primary and 6 secondary schools, and 2 community-based HKFYG Youth S.P.O.T.s. This 5-month Project began in February 2005 and consists of training programs for local teachers and youth workers by MIT Media Laboratory researchers and collaborators, as well as experimental workshops for students using MIT training materials. It is expected that students' cognitive development will benefit and their

analytical abilities, creative and communication skills will improve.

A LEAD Seminar-cum-Showcase will be held to introduce this Pilot Project to the wider community, using actual Project outcomes, from the workshops, to demonstrate how technologies from abroad can be applied to the local context.

(EE04445)

Development of an Information Literacy Framework for Hong Kong Students

✍ LEE Fong Lok • PUN Sai Wing • CHAN Yuen Yan (Information Engineering) • IP Wai Hung (Hong Kong Institute of Educational Research)

□ 1 September 2004

❖ Quality Education Division, Education and Manpower Bureau

To develop an “Information Literacy” framework for primary and secondary students based on the Information Technology Learning Targets for primary and secondary education so that teachers and students have a clearer picture on the learning targets of using IT in education.

(ED04744)

Refresher Training Courses for School Teachers - Using WebQuest and Concept Map Tool in Project-Based Learning for Primary and Secondary School Teachers

✍ LEE Fong Lok

□ 20 November 2004

❖ Education & Manpower Bureau, HKSAR Government

The Faculty of Education and the Hong Kong Institute of Educational Research of The Chinese

University of Hong Kong were commissioned by the Education Manpower Bureau to offer the Refresher Training Courses for School Teachers: Using WebQuest and Concept Map Tool in Project-based Learning for Primary and Secondary School Teachers in 2004/2005 school year. In this course, participants will learn how to design and develop a WebQuest in their subject area(s), locate useful information on the Web, work collaboratively with other teachers, and evaluate complex achievement of their students. After finishing the course, participants are able to:

- a) choose a topic appropriate for teaching with a Web-based inquiry approach over a period of two to four weeks;
- b) use templates and a Web editor to create a personal home page and a set of Web pages to communicate with students and other teachers;
- c) use a concept map tool to design and develop a WebQuest;
- d) explain the conceptual underpinning of the WebQuest approach, including information literacy, situated cognition, task-based learning, cooperative learning and scaffolding; and
- e) nurture stronger information literacy in schools.

(ED04699)

Provision of Professional Assessment Services for the Project entitled "Development of Using Interactive Whiteboards in Enhancing Learning and Teaching in Schools"

✍ LEE Fong Lok • PUN Sai Wing • Kong Siu Cheung* • Li Siu Cheung*

□ 15 March 2005

❖ i-Control Ltd

To provide advice to teachers in the pilot schools in developing interactive contents for use with the

whiteboard in 10 different school sites and to conduct research and evaluation of the use of interactive whiteboard in the pilot schools.

(ED04944)

Information Technology in Education Refresher Training Courses for School Teachers (2005-2006): Developing Interactive eBooks to Promote e-Learning in Schools

✍ LEE Fong Lok

□ 17 May 2005

❖ Education & Manpower Bureau, HKSAR Government

The Faculty of Education and the Hong Kong Institute of Educational Research of The Chinese University of Hong Kong were commissioned by the Education Manpower Bureau to offer the Information Technology in Education Refresher Training Courses for School Teachers (2005-2006). After finishing the course, teacher participants should:

- a) Realize how eBooks could be best made use of to promote e-learning in different subjects;
- b) Learn how to develop interactive eBooks with eBook development software;
- c) Know how eBooks could be published on common e-learning platforms to support student learning.

(ED04986)

A Study of the Conception and Practice of Teacher Community as Sustainable Professional Development among ESL Teachers in Hong Kong

✍ MAK CHAN Shuk Yin • PUN Shuk Han

□ 1 January 2005

❖ CUHK Research Committee Funding (Direct Grants)

Professional development in form of workshop, coursework and teacher exchange has been practiced among teachers of English as second language (ESL) in Hong Kong as a way of improving the quality of teaching for a while. Yet, there have not been any systematic studies that examine how ESL teachers learn and, thus, make instructional shifts which help enhance student learning outcomes. Building on a reflective and collaborative model of teacher community, the proposed study aims to conduct focus group discussions among ESL teachers to explore the concept of teacher community as sustainable professional development. Specifically, it plans to uncover how important it is for them to share diverse teaching strategies and experiences in meeting the needs of students, parents, school administrators and policy makers under the current education reform. Views from serving teachers on the kind of structural or organizational arrangements needed to help establish a community of teachers will be gathered through a questionnaire survey. Participants in focus-group discussions will be recruited among students enrolled for Post-graduate courses offered by the Faculty of Education at CUHK and survey respondents will come all primary and secondary schools in Hong Kong. Information gathered will facilitate a comprehensive understanding about how ESL teachers define professional development, their experience and the process by which they translate knowledge into instructional strategies which is essential to the formulation of any policies that aim to elevate teachers' self-efficacy in taking up and trying out new teaching strategies in spite of various human and structural barriers.

(ED04621)

Mentoring Support Development Programme for Primary Schools

(Educational Administration & Policy) • 余迺永 YU Nae Wing

✍ MAN Yee Fun Evelyn

1998-99 Young Writer Website (ED98034)

☐ 1 November 2004

✍ HO Man Koon

❖ Education & Manpower Bureau, HKSAR Government

1995-96 The Status and Needs Assessment of Environmental Education in Primary Schools (ED95015)

The aim of the Programme is to prepare primary school teachers to assume the role of mentors in supporting beginning teachers in their day-to-day work, professional skills and subject knowledge, as well as in building up a professional development portfolio for the beginning teachers' self-reflection. The Programme also provides participants with the necessary conceptual understanding, knowledge and skills expected of an effective mentor in promoting whole school mentoring support.

✍ LEE Chi Kin John • WONG Hin Wah

(ED04851)

2003-04 School & University Partnership for Educational Renewal Project (SUPER Project) (2003-04) (ED03398)

✍ LEE Chi Kin John • CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership)

Please refer to previous issues of this publication for more details of the following ongoing research at the department:

2003-04 Moral and Civic Education (MCE) School-Based Curriculum to Develop Students' Five Priority Values in Hong Kong Primary Schools (ED03418)

✍ LEE Chi Kin John • TSE Kwan Choi (Educational Administration & Policy) • CHOW Chiu Woo • KO Mo Lin Regina (Ctr for University & School Partnership)

Edition Title/Investigators

2002-03 「香港文學教育：香港文學欣賞教材套」研究與發展計劃

Teaching and Learning of Hong Kong Literature: An Education Kit for Project: An Education Kit for Promoting the Appreciation of Hong Kong Literature (ED02384)

2002-03 Virtual Interactive Student-Oriented Learning Environment (VISOLE) - Extending the Frontier of WEB-Based Learning (CU02200)

✍ 崔晶盈 CHUI Ching Ying • 趙明明 CHIU Ming Ming (Educational Psychology) • 李子建 LEE Chi Kin John • 黃顯華 WONG Hin Wah • 盧乃桂 LO Nai Kwai Leslie

✍ LEE Fong Lok • LEE Ho Man Jimmy (Computer Science and Engineering) • LEUNG Yee (Geography & Resource Management) • CHAU Kwai

- Cheong (Geography & Resource Management)
- Institute of Educational Research) • CHUI Ching Ying • NG Mau Yuen Eric • HO Ying Ping* • LAM On* • YEUNG Kwai Hong*
- 2003-04 從平面到立體；探索高維空間神奇旅程
網絡學習環境 (與首都師範大學合作)
The Network Learning Environment from Flat-Land to Space-Land: The Higher Dimensional Space Odyssey (Collaboration with Beijing Capital Normal University) (ED03609)
✍ 李芳樂 LEE Fong Lok • 李浩文 LEE Ho Man Jimmy (Computer Science and Engineering) • 羅浩源 LAW Huk Yuen • Wang Lu*
- 2003-04 Professional Development Course for Secondary School Graduate Teachers 2003-2004 (ED03975)
✍ WONG Hin Wah
- 2003-04 Curriculum Leadership Course of Science Education Key Learning Area - Science (S1-3) (ED03977)
✍ YIP Din Yan • CHEUNG Sin Pui • MAK Se Yuen
- 2003-04 Development of Language Across the Curriculum for English-medium Education (ED03854)
✍ MAN Yee Fun Evelyn • CONIAM David • CHUN Ka Wai Cecilia • MAK CHAN Shuk Yin
- 2003-04 Promoting the Mastery of Investigative Skills in Junior Secondary Science Students (ED03429)
✍ YIP Din Yan • CHEUNG Sin Pui
- 2002-03 Evaluation Study on Implementing the New Secondary Chinese Language Curriculum at School Level in the School Years of 2002/03 and 2003/04 (ED02398)
✍ WONG Hin Wah • HO Wai Kit • TONG Choi Wai (Hong Kong
- 2003-04 Formation of a Phonological Table of Archaic Chinese (AL03754)
✍ YU Nae Wing

RESEARCH PROJECTS

Macau PISA 2003

✍ HO Sui Chu • KWONG Wai Leung (Hong Kong Institute of Educational Research)

☐ 1 May 2004

❖ The Government of Macau Special Administrative Region of the People's Republic of China

The Programme for International Student Assessment (PISA) is a regular survey of 15-year olds assessing their preparedness for adult life. The OECD, with the objective to develop regular, reliable and policy relevant indicators on student achievement, launched the PISA Programme in 1997. The proposed project will collect data on Macau students' levels of literacy in reading, mathematics, science and problem solving. It can contribute to our understanding of the quality of education in *Macau* from an international perspective. Moreover, it will provide directions for educational reform and for students' learning as well as insights into curriculum strengths and weaknesses in Macau. The study will also generate valid and reliable tools for policymakers to monitor achievement levels especially when administration is decentralized and schools are run in partnership with the community in Macau. By comparing the directions and pace of change in different countries, policy-makers will be able to put Macau developments in the context of global change to meet the challenges of the new century.

(ED03901)

Programme for International Student Assessment (PISA) 2006 in Hong Kong

✍ HO Sui Chu • LO Nai Kwai Leslie • CHUNG Yue Ping Stephen • TSANG Wing Kwong • YIP Din Yan (Curriculum & Instruction) • CHEUNG Sin Pui (Curriculum & Instruction) • KWONG Wai Leung (Hong Kong Institute of Educational Research) • WONG Ka Ming Patrick (Curriculum & Instruction) • LAW Huk Yuen (Curriculum & Instruction) • MAN Yee Fun Evelyn (Curriculum & Instruction) • NG Mau Yuen Eric (Curriculum & Instruction) • CHUN Ka Wai Cecilia (Curriculum & Instruction) • SZE Man Man Paul (Curriculum & Instruction) • TONG Choi Wai (Hong Kong Institute of Educational Research) • CHIU Ming Ming (Educational Psychology)

☐ 11 October 2004

❖ Education & Manpower Bureau, HKSAR Government

The Programme for International Student Assessment (PISA) is a new regular survey of 15-year olds assessing their preparedness for adult life. The PISA programme was launched in 1997 by the OECD with the objective to develop regular, reliable and policy relevant indicators on student achievement. The data strategy defines three cycles of the project: PISA 2000 focusing on reading literacy, PISA 2003 focusing on mathematical literacy and finally PISA 2006 focusing on scientific literacy. HKPISA 2000 and HKPISA 2003 were successfully implemented by the HKPISA Centre, the Hong Kong Institute of Educational Research of the Chinese University of Hong Kong. PISA 2006 constitutes the third cycle of the project, which will be conducted in 2004-2006. The purpose of the HKPISA 2006 study is to continue the investigation of HKPISA2000 and HKPISA2003 and develop a longitudinal database for the study of several problems confronting the youth

in Hong Kong secondary schools. The study will parallel the third cycle of PISA study conducted by the OECD in over 40 countries. This international study can extend our knowledge on the effectiveness of Hong Kong basic education by establishing a timely, longitudinal, and multilevel database. The full project can provide direction for school reform and for students' learning as well as insights into strengths and weaknesses. They also provide tools for central authorities to monitor achievement levels especially when administration is devolved and schools are being run in partnership with communities.

(ED04383)

Export Potential of Hong Kong Education Services

✍ HUNG Fan Sing • SHIVE Glenn Landes • DIU Chin Kee (School of Continuing and Professional Studies) • WANG Xiaohua* • CHUI Ching Ying (Curriculum & Instruction) • MAK CHAN Shuk Yin (Curriculum & Instruction)

☐ 1 August 2004

❖ Hong Kong Trade Development Council

This study aims to assess the export potential of Hong Kong's education services on a commercial basis, particularly with mainland China as the primary market and with higher education as the primary export of education services, while recognizing the competition from other education-exporting economies. The exports can be in the form of establishing schools or offering educational courses/programmes in markets outside Hong Kong (outbound mode) or enrolling non-resident students to study in Hong Kong's educational institutions, schools and universities

(inbound mode). The study also aims to recommend marketing priorities and strategies for Hong Kong as a whole and education services providers in particular in promoting Hong Kong's exports of education services. Policy recommendations and institutional adjustments will also be made based on the findings of the study.

The study is significant to the future development of Hong Kong in terms of the importance of education exports to the economy as a whole, the development opportunities of the education sector in Hong Kong, and the international importance of Hong Kong in the educational and cultural exchange.

Specific research questions to be addressed in this study include the competitive advantages and disadvantages of Hong Kong's exports of education services on a commercial basis; the student profiles of the potential market for Hong Kong's exports of education services, particularly with mainland China as the primary market; the relevant, cost-effective marketing priorities and strategies for education services providers in Hong Kong; and the recommendations on policy and institutional arrangement of Hong Kong in promoting the exports. Methods of this study include literature review, questionnaire and interviews surveys in Beijing, Shanghai, Xi'an, Guangzhou, Donggong, and Shenzhen cities in mainland China, interview surveys in Hong Kong, and case studies in Hong Kong. Findings from these 4 methods of survey will be analyzed holistically, applying the SWOT approach and a 3-dimension (costs and benefits, short- and long-term, society's and education services provider's point of view) frame of analysis.

It is hoped that the results of this study can help education services providers identify the potential market segments and formulate their marketing priorities and strategies, while making relevant policy recommendations to the government and promotion

recommendations to the Hong Kong Trade Development Council.
(ED04382)

Quality School Improvement Project

✍ LO Nai Kwai Leslie • CHIU Chi Shing (Curriculum & Instruction) • WONG Hin Wah (Curriculum & Instruction) • CHUNG Yue Ping Stephen

□ 1 December 2004

❖ The Permanent Secretary for Education and Manpower Incorporated

The Hong Kong Institute of Educational Research was commissioned by the Education and Manpower Bureau to provide site based professional support for principals and teachers in Hong Kong commencing in November 2004. The title of the project is “Quality School Improvement Project” (QSI), the duration of the project is for five years.

The QSI is a consolidation of the invaluable experiences from the Accelerated Schools for Quality Education Project (HK-ASP) 1998-2001, Quality Schools Project (QSP) 2001-2003 and Quality Schools in Action (QSA) 2003-2004.

The QSI takes an integrated, interactive and organic approach in working collaboratively with the school practitioners. The goals are (1) to create an environment conducive to school improvement and to promote quality of school education; (2) to facilitate school-based development and provide students learning environment so that each and every one of them can have all-round and unique development; (3) to help schools transform into learning organizations, emphasizing teaching and learning effectiveness, in institutions where synergy and professional responsibilities are established. The objectives are (1) to help school develop an ever-going self-inquiry

process with strong evidence-based knowledge and professional responsibilities; (2) to enhance teachers’ capacity through collaborative effort in promoting effective learning; (3) to advise, construct, design and implement appropriate and effective curriculum, action plans and staff development programmes; (4) to establish quality networks in system, key learning areas and personal level; and (5) to cultivate students’ life-long learning interest and abilities.

The QSI adopts the concept of “evaluation of”, “evaluation for” and “evaluation as” school improvement.

(ED04743)

Transforming Schools into Learning Organizations

✍ PANG Sun Keung Nicholas

□ 1 September 2004

❖ Quality Education Fund, HKSAR Government

In order to survive in an ever-changing environment, Hong Kong schools have no exception and required to transform themselves into learning organizations. This school development and research project aims to allow principals and teachers to acquire the skills and techniques in the five disciplines of organizational learning and to transform schools into learning organizations. When schools are learning organizations, they are more able to (i) shift their paradigms in daily managerial and teaching practice; (ii) initiate organizational change for continuous development; (iii) cope with the challenges created by recent educational reforms; and (iv) provide quality education for their students and quality services for stakeholders concerned. A sample of 10 primary schools and 10 secondary schools will be adopted in this project from September 2004 to August 2006. A “fan” approach of organizational

change will be adopted in these schools, in which concepts of organizational learning will first be initiated at senior management. Afterwards, changes and transformation will spread through to middle management and gradually throughout the entire school organization when the project is implemented. Intensive training programs for the members of School Development and Evaluation Committees (SDECs) –the senior/middle management will be provided. Four half-day workshops will also be conducted for each school within the two years. Changes and transformations should occur not only at the managerial level, but also the teacher/classroom level. The workshops will invite the participation of all staff members of a school and to adopt a whole-school approach to initiate change.

(ED04352)

School	Self-Evaluation:	Reinforcing
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Organizational Change

✍ PANG Sun Keung Nicholas

☐ 1 September 2004

❖ A Group of Hong Kong Schools

This project, entitled *School Self-evaluation: Reinforcing Organizational Change*, aims to help schools to institutionalize a self-evaluation framework in daily managerial practice and to reinforce changes that initiated in the past year by a school self-evaluation project conducted in 2003-04. Besides these basic aims, this project will also help schools prepare for external school review (ESR), focused inspections (FIs) or whole-school inspections (WSIs) conducted by the Quality Assurance Inspectorate (QAI) of Education and Manpower Bureau under the School Development and Accountability Framework. The project will have

activities such as training programs, workshops, evaluation of school performance, school visits as well as consultancy and in-services on school development. By the end of the project, the participating schools' capacity of leading and managing organizational change will be enhanced.

(ED04400)

Developing Schools as Learning Organizations

✍ PANG Sun Keung Nicholas

☐ 1 September 2004

❖ A Group of 10 Primary Schools and 10 Secondary Schools

The school development project aims:

- To help schools understand the concepts of organizational learning and to acquire the skills and techniques of the five disciplines in Peter Senge framework of a learning organization.
- To develop and validate a set of performance indicators of organizational learning in the school context and to help schools to monitor the learning capacity for continuous development.
- To assess the schools' learning capacity at different times, that is, before and after the implementation of the school development project, so as to examine the effectiveness of the strategies to transform schools into learning organizations.
- To foster a climate of organizational change in the schools and to cultivate a culture of organizational learning among the schools.
- To enhance the schools' learning capacity and their effectiveness of change in coping with the challenges created from the recent educational reforms.

A sample of 10 primary schools and 10 secondary schools will take part in this project for the period, September 2004 to August 2006. The project will benefit the participating schools in the following ways: (i) the participating schools can monitor their capacity of organizational learning at different times; (ii) principals' and teachers' professional competence, confidence and performance will be promoted; (iii) the schools will be more proactive to the requirements created from educational reforms; and (iv) student learning will be improved, when staff members of the participating schools have practiced the five disciplines of organizational learning and when there are learning communities created in the schools.

(ED04710)

Basic Training Programmes for School Managers in Aided Primary/Secondary/Special Schools

✍ PANG Sun Keung Nicholas

□ 1 October 2004

❖ Education and Manpower Bureau, HKSAR

The aim of the programmes is to enable serving school managers to have a better understanding of their roles as school managers under the spirit of school-based management, and to equip them with the basic knowledge and skills essential in carrying out their responsibilities effectively as school managers as required by the Education (Amendment) Ordinance 2004. It is expected that the participants, after having completed the programme, will work confidently, competently, and collaboratively with other stakeholders in IMCs and live truly up to the spirit of school-based management.

(BS04521)

Preparation for Principalship Course for Aspiring Principals of Primary Schools (2004-2006)

✍ PANG Sun Keung Nicholas • WALKER Allan David

□ 1 November 2004

❖ Education & Manpower Bureau, HKSAR Government

The objective of this service is to conduct a designated course now known as "Preparation for Principalship Course for Aspiring Principals of Primary Schools (2004-2006)", which is one of the three parts of the "Certification for Principalship (CFP)" process for aspiring principals, according to the design.

(ED04765)

Preparation for Principalship Course for Aspiring Principals of Secondary Schools (2004-2006)

✍ PANG Sun Keung Nicholas • WALKER Allan David

□ 1 November 2004

❖ Education & Manpower Bureau, HKSAR Government

The objective of this service is to conduct a designated course now known as "Preparation for Principalship Course for Aspiring Principals of Secondary Schools (2004-2006)", which is one of the three parts of the "Certification for Principalship (CFP)" process for aspiring principals, according to the design.

(ED04784)

A NAFPhk Research-Based Training and Professional Development Programme - Needs

**Analysis for Aspiring Principals in Hong Kong
2004-2006**

✍ WALKER Allan David

□ 1 September 2004

❖ Education & Manpower Bureau, HKSAR
Government

This research based project is for the continued implementation of a scheme specifically designed to identify and communicate a developmental needs analysis strategy for Aspiring Principals. The needs analysis strategy is an integral component of a broader policy designed to improve both the performance and preparedness of future school leaders in Hong Kong. The needs analysis strategy assumes that future leaders will be charged with implementing school-based management leading to school improvement and be dedicated to the notion of life-long learning. The scheme will be implemented under the NAFPhk[AP] name and will be formally known as “Needs Analysis for Aspiring Principals”. The overall aim of NAFPhk[AP] is to provide aspiring principals with an initial gauge of their strengths and developmental needs so that they can assess their own suitability for principalship, and design a meaningful personal professional development plan geared toward achieving leadership potential.

More specifically, the objectives of NAFPhk[AP] are to identify the leadership potential of participants interested in becoming principals, to help participants to develop their leadership potential and to contribute to the leadership preparedness of participants seeking the principalship.

(ED04536)

**The Development Assessment of Newly-Appointed
Principals in Hong Kong 2004**

✍ WALKER Allan David

□ 11 November 2004

❖ Education & Manpower Bureau, HKSAR
Government

This research and development project continues an established form of principalship training. Participation in the needs assessment exercise will provide newly appointed principals with a comprehensive assessment of their current stage of development and, as such, allow them to plan a meaningful and relevant approach to their professional development during the first two years of their principalship. Aggregated data will be valuable to professional development providers in conceptualising and planning relevant professional development for newly appointed principals and for researching the principalship in Hong Kong. Participation in the needs assessment exercise will, in itself, be an extremely worthwhile professional development exercise for all involved and will cement the strong tripartite relationship established between the Education and Manpower Bureau, the organisers and practising principals.

(ED04881)

**Blue Skies – A Professional Learning Programme
for Beginning Principals**

✍ WALKER Allan David • QUONG Terrence*

□ 1 February 2005

❖ Education & Manpower Bureau, HKSAR
Government

This project aims to develop a new, integrated approach to the needs assessment and ongoing professional learning for Beginning Principals [BPs, formally referred to as Newly Appointed Principals

(NAPs)] in primary, secondary and special schools in Hong Kong. As such, we will develop a more comprehensive programme, one which aims to help BPs start their principalship ‘on the right foot’, clarify what’s important to them about the principalship and their school, socialise them in the principles of ongoing profession learning, encourage the development of self-awareness and questioning habits, and encourage them to access networks for learning. The Blue Skies programme package will include three major parts - a pre-analysis component, a workshop-day component and an ongoing or rolling component (running over approximately a year). Whereas we will develop and structure this rolling process as part of the overall programme, to be implemented, it would require the support of principal networks, mentors and the EMB.

At the conclusion of the Blue Skies programme Beginning Principals will:

1. Be committed to the principles of lifelong learning.
2. Have an accurate picture of who they are as people and leaders and ways to make sense of their jobs.
3. Have developed a realistic image of the principalship and the reality of leading schools in Hong Kong today.
4. Feel more confident in their work and better prepared to cope with and lead change and school improvement.
5. Be better equipped to manage the problems and dilemmas of working in the school as an organization
6. Understand better how to cope with problems individually and as part of a support network.
7. Have a better feeling of wellbeing and greater resilience to face the tasks associated with their job.

(ED04418)

Translation of Serving principals Needs Analysis Programme (SpNAP) and Production of Chinese SpNAP CD-ROM

✉ WALKER Allan David

☐ 10 May 2005

❖ Education & Manpower Bureau, HKSAR
Government

This project aims to translate the Serving principals Needs Analysis Programme (SpNAP), originally written in English, into Chinese in a dual format (hard copies and computer software). The Chinese SpNAP follows the same objectives as its English version. The main aim is to provide serving principals with the opportunity to identify their current strengths and weaknesses, threats and opportunities, within the context of their wider school community. The package provides a structure upon which experienced principals can first, reflect upon their own leadership and management in order to secure quality school based management and school improvement and second, to plan and implement a renewable and relevant leadership learning agenda.

(ED04465)

Please refer to previous issues of this publication for more details of the following ongoing research at the department:

<u>Edition</u>	<u>Title/Investigators</u>
2003-04	Inquiry into Sources of Moral Education in Hong Kong from a British Colony to a Chinese Special Administrative Region: Stage (I) Studies on Personal Narratives of Moral Values (1974-2003) (ED03564)

	✍ CHENG Hon Man Roger	2003-04	Literacy Performance of Hong Kong Secondary Schools: The Trial Study of OECD/PISA2006 (ED03577)
2003-04	Voices under Patriarchy and Capitalism: Life Histories of Women Garment Workers in HK, 1950-2000 (SS03530)		✍ HO Sui Chu • YIP Din Yan (Curriculum & Instruction) • KWONG Wai Leung (Hong Kong Institute of Educational Research)
	✍ CHOI Po King Dora • YIP Hon Ming (History) • PUN Ngai* • WONG Yuk Lin Renita*		
2002-03	A Study of Demand for Higher Education with Reference to Educational Finance in Hong Kong and Mainland China (CU02209)	2003-04	School Decentralization and Parental Involvement in Children's Education: A Comparative Case Study (ED04657)
	✍ CHUNG Yue Ping Stephen • LU Gen Shu*		✍ HO Sui Chu
2001-02	Parental Involvement in Children's Education: What Works and How It Works (ED01335)	2003-04	Quality Schools in Action (ED03904)
	✍ HO Sui Chu • KWONG Wai Man*		✍ LO Nai Kwai Leslie • CHIU Chi Shing (Curriculum & Instruction) • CHUNG Yue Ping Stephen • WONG Hin Wah (Curriculum & Instruction)
2001-02	Programme for International Student Assessment 2003 in Hong Kong (ED01712)	2001-02	Developing Schools through Self-Evaluation (ED01672)
	✍ HO Sui Chu • LO Nai Kwai Leslie • CHUNG Yue Ping Stephen • TSANG Wing Kwong • WONG Ka Ming Patrick (Curriculum & Instruction) • LAM Chi Chung (Curriculum & Instruction) • YIP Din Yan (Curriculum & Instruction) • CHIU Ming Ming (Educational Psychology) • CHUN Ka Wai Cecilia (Curriculum & Instruction) • SZE Man Man Paul (Curriculum & Instruction) • MAN Yee Fun Evelyn (Curriculum & Instruction)		✍ PANG Sun Keung Nicholas
		2002-03	Preparation for Principalship Course (ED02972)
			✍ PANG Sun Keung Nicholas
		2003-04	Initiating Organizational Change via School Self-Evaluation (ED03329)
			✍ PANG Sun Keung Nicholas
		2003-04	Self-Evaluation, External Review and School Development (ED04423)
			✍ PANG Sun Keung Nicholas
		2003-04	Conceptual Mapping of a Locally-Relevant School Violence-Prevention Program (ED03496)

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| 2003-04 | <p>✍ TAM Wai Ming Frank • LAM Yee Lay Jack</p> <p>A Study of Knowledge Transfer Through Mentoring in Schools (ED03686)</p> <p>✍ TAM Wai Ming Frank • YAP Foong Ha (Linguistics and Modern Languages)</p> | 2002-03 | <p>Strengthening School Leadership: Identifying the Development Needs of Serving Principals in Hong Kong (ED02990)</p> <p>✍ WALKER Allan David • QUONG Terrence*</p> |
| 2002-03 | <p>Further Evaluation on the Implementation of the Medium of Instruction Guidance for Secondary Schools (ED02461)</p> <p>✍ TSANG Wing Kwong • HUNG Fan Sing • LO Nai Kwai Leslie • CHEUNG Sin Pui (Curriculum & Instruction) • HO Wai Kit • LEE Chi Kin John (Curriculum & Instruction) • CHUN Ka Wai Cecilia (Curriculum & Instruction) • WONG Hin Wah (Curriculum & Instruction) • YIP Din Yan (Curriculum & Instruction)</p> | 2003-04 | <p>Assistant Principals in Secondary Schools of Hong Kong: Their Work Lives and Preparation for the Principalship - A Longitudinal Investigation (CU03289)</p> <p>✍ WALKER Allan David • DIMMOCK Clive* • KWAN Yu-Kwong* • LEE Chi Kin John (Curriculum & Instruction)</p> |
| 2003-04 | <p>Images of Good Children: Moral Education Curriculums at Primary Level in the Great China (ED03776)</p> <p>✍ TSE Kwan Choi</p> | 2000-01 | <p>Education and Work: The Efficacy of Schooling on Human Resource Development in Three Regions in China (CU00379)</p> <p>✍ XIAO Jin • CHUNG Yue Ping Stephen • LEE Chi Kin John (Curriculum & Instruction) • LO Nai Kwai Leslie • WONG Hin Wah (Curriculum & Instruction)</p> |
| 2002-03 | <p>A Research Based Training and Development Programme on 'Needs Analysis for Aspiring Principals' (ED02619)</p> <p>✍ WALKER Allan David • CHAN Anissa* • CHAN Kin Hung* • CHAN Wing Kwong* • CHEUNG Man Biu Robin* • WONG Yeuk Han Cecilia*</p> | | |

RESEARCH PROJECTS

Successful Leadership Development Programme II: Leadership and Character Education Through School Service

- ✍ CHAN Wai Ock David • CHEUNG Ping Chung
• CHENG Pui Wan
- 1 September 2004
- ❖ Education & Manpower Bureau, HKSAR Government

This project aims to enhance the leadership ability and quality of the exceptionally gifted students, and to develop their potential. The program focuses on students' personal and leadership skills development, and also provides opportunities for the students to demonstrate their leadership ability in serving students of other local primary and secondary schools and the community via practicum service programs. Target students will be about 56 senior secondary students identified by the "Support Measures for the Exceptionally Gifted Students Scheme" as being exceptionally gifted. These students should have been nominated by their schools as students who have demonstrated outstanding potential/performance in leadership and have received some basic leadership training. The leadership training will consist of a series of intensive university-based training held at the Chinese University of Hong Kong, followed by a Service Practicum component in the form of school-based services. Participants will finally report on their training and service at the end of the program.

(ED04822)

Multiple Intelligences and Learning Styles of Gifted Students in Hong Kong

- ✍ CHAN Wai Ock David
- 1 March 2005
- ❖ CUHK Research Committee Funding (Direct Grants)

According to Gardner's theory of multiple intelligences and Renzulli's conception of learning styles, different individuals have different strengths and weaknesses along eight intelligences, and likes and dislikes of different learning styles respectively. It is important for teachers to gear their instructional modes to accommodate students' multiple intelligences profile and learning styles to suit both the talent development and the learning needs of their students, especially gifted students who may need to be identified and nurtured in the most effective way. The primary purpose of this study, therefore, is to assess both the multiple intelligences profiles and the learning styles of gifted students, and explicate the relationship between the two.

(ED04873)

Beneficial and Harmful Effects of Group Processes During Classroom Group Work

- ✍ CHIU Ming Ming
- 1 January 2005
- ❖ Research Grants Council (Earmarked Grants)

Many difficult problems require people to work together to solve them. What helps group members create new correct ideas? What hinders them? This study analyzes how various group processes during cooperative learning (CL) affect later group processes and group outcomes. Specifically, how do cognitive and social-emotional process variables affect a) later

cooperation, b) correctness of actions and c) solution scores?

About 100 students in 3 grade 7 secondary school classes in 1 school will study algebra in CL groups for a week. Based on past studies, I optimize the group structure and the group training of the participants. Using statistical techniques to control for group structure and training, this study focuses on the effects of different types of group processes. Videotapes of the CL groups will be transcribed and coded. Group process variables captured within a five-dimensional framework include a) evaluations of one another, b) knowledge content and c) invitation to participate, d) correctness, and e) politeness level. Past studies have not examined the effects of these variables together. Statistical analyses and case studies will document their relationships.

Past studies of group processes have been statistically problematic. Difficulties include binary dependent variables, group-specific effects, time period-specific effects, serial correlation and systems of equation problems. This study introduces a new methodology that addresses all of these difficulties - dynamic multi-level Probit/Logit. The results will help build a systematic understanding of CL processes. Then, people can engage in beneficial processes and deal with harmful ones to working together more productively.

(CU04117)

Critical Thinking among Chinese Students: Characteristics, Assessment, and Relationship with Dispositional Factors

✉ HAU Kit Tai • HO Irene T.* • HALPERN Diane*

☐ 1 September 2004

❖ Research Grants Council (Earmarked Grants)

Recently in Hong Kong, as well as around the world, education reforms emphasized the need to help students learn how to learn, and that critical thinking is an essential generic skill to be nurtured. At least on the surface, this movement does not seem to fit comfortably with the alleged rote-learning tradition in Chinese education. The present research attempts to examine the critical thinking of Chinese students and develop appropriate assessment tools for use in the local context. Four phases of work will be carried out in collaboration with the Curriculum Development Institute under the Education and Manpower Bureau. In Phases 1 and 2, a recent critical thinking assessment instrument, developed by Professor Diane Halpern (President-elect, American Psychological Association, 2003), is translated and administered. Its psychometric properties and suitability for local use will be extensively studied. In Phase 3, the characteristics of critical thinking among Chinese students are examined, including (i) the internal factorial structure, (ii) the relationship with demographic and other background variables (verbal ability, numeric ability, academic achievement), and (iii) the relationship with dispositional factors (need for cognition, conscientiousness, thinking disposition). In Phase 4, a new assessment tool, suitable for high school students, is constructed. Culture-specific characteristics will be examined both qualitatively and statistically (e.g., differential item function). This research provides the necessary foundation for the large scale launching of critical thinking skills training and assessment for high school and tertiary students in Hong Kong.

(CU04118)

Handwriting and Learning to Read Chinese: Psychology and Pedagogy

✍ SHIU Ling Po • CHENG Pui Wan

☐ 1 November 2004

❖ Research Grants Council (Earmarked Grants)

Copying a character by hand many times is a traditional and presumably effective way of learning to read Chinese. However, the effectiveness of this method and the psychological process and mechanism involved have not been scrutinized by modern scientific methods. Instead, most research in the last few decades focused on the phonological aspects of the learning process. Our proposed studies are an entirely new attempt to address these questions by two approaches. Firstly, we adopt a pedagogical approach to evaluate the effectiveness of copying by hand in a school context. Primary schools in Hong Kong vary in the way reading is taught. Some use copying without any phonics instruction. Some teach Pinyin, a phonetic script for Chinese, together with some or little copying. Thus, they provide a natural setting for us to assess the value of copying as a learning activity, and its long-term impact on students' reading achievement. Secondly, we adopt an experimental approach to investigate the psychological process and mechanism involved in copying by hand. Specifically, we will test three hypotheses: (1) copying produces a motor representation of the character to facilitate retrieval and recognition; (2) copying produces a unitized orthographic representation of the character; and (3) copying is a strategy to tackle new characters (i.e., a “word-attack” strategy). The results of our proposed studies should have important implications for both theories of reading acquisition and teaching of reading.

(CU04121)

Young People Career Development: A Survey of Career Progression Patterns and Interventions

✍ WONG Yuk Shuen • Ishiyama Ishu* • Young Richard*

☐ 15 November 2004

❖ CUHK Research Committee Funding (Direct Grants)

Career development of young people is a complex human resource issue to be addressed in Hong Kong (Cheung, 2004; Ip, 2004). Annual expenses of the Youth Pre-employment Training Program and the Youth Work Experience and Training Scheme programs targeting young people amount to HK\$300 million (Cheung, 2004). Most approaches to youth career development involve an immediate aim to solve the problem and a developmental aim to enhance competence. Career problem solving program that produces little attitude and behavioural change is not going to be successful (Freeman, 2004; Social and Economic Policy Institute, 2002). A successful career program needs to develop a sense of agency and competence in the participants (Kush & Cochran, 1993). This project consists of two parts: (a) a survey and (b) a small sample of follow-up interviews. The objective is to identify the career situation of young people in Hong Kong regarding barriers and needs for support interventions. The survey will help us go beyond numbers and address family, social, cultural, and personal barriers to career development among young people. The results of the study will help us offer practical recommendations for effectively addressing issues such as career progression, career stagnation at the family and systemic levels and for implementing preventative and educational interventions. The study will identify both successful and problematic career development patterns which require constructive support to maximize potential. The final output will be a report that will be shared with

all the participants, the family, the school administrators and education policy makers.
(ED04835)

Investigating the Effectiveness of a Theory-Driven Approach in Changing Self-Efficacy through Sociocultural Competency Training Interventions

✉ WONG Yuk Shuen • Ishiyama Ishu*

□ 15 March 2005

❖ CUHK Research Committee Funding (Direct Grants)

The purpose of this study is to investigate the effectiveness of sociocultural competency training to enhance participants' self-efficacy. The hypotheses are sociocultural competency training will change participants' attitudes regarding their general and social self-efficacy, reduce situational avoidance behaviours, and enhance interpersonal skills competency.

People with low self-efficacy and expectancies often view others as uninterested, critical, and difficult to impress. This cynical view of social interaction needs to be addressed through positive learning experiences. Self-efficacy is the most powerful and effective way to initiate and sustain active effort and performance. Self-efficacy can be enhanced by four sources of efficacy information (Anderson & Betz, 2001; Bandura, 1986, 1995, 1997).

This study is one of the few empirically based studies to investigate the effectiveness of a theory-driven approach in changing self-efficacy through sociocultural competency training interventions, while examining the changes in participants' perceived efficacy and social skill levels. It will evaluate the six-session sociocultural competency training (Westwood, Mak, Baker, & Ishiyama, 1997), which is based on the self-efficacy theory (Bandura,

1977, 1986, 1995, 1997), role-based group learning theory (Corey & Corey, 1988; Westwood et al. 1997) and behavioural learning theory (Pavlov, 1938; Skinner, 1953, 1972).

The research questions are

1. How effective is SCCT in enhancing participants' perceived general and social self-efficacy?
2. How effective is SCCT in enhancing participants' behavioural performance of the sociocultural competency?
3. What is the nature of the internal changes of the participants?
4. What leads to the participants' positive changes in their perceived self-efficacy?
5. What are the effective learning components for participants?

(ED04807)

Please refer to previous issues of this publication for more details of the following ongoing research at the department:

<u>Edition</u>	<u>Title/Investigators</u>
2003-04	Family Environment and Talent Development Among Chinese Gifted Students in Hong Kong (ED03495) ✉ CHAN Wai Ock David
2000-01	Indication and Prevention of Aggressive and Withdrawn Behaviours in Primary School Children (SS20005) ✉ CHANG Lei • MCBRIDE Catherine Alexandra (Psychology)
2001-02	A Longitudinal Study of Peer Relations in Chinese Children in Hong Kong and

	China: Instrument Development and Explorations of Social Withdrawn Behaviors (ED01339) ✍ CHANG Lei	2003-04	Creating Correct New Ideas during Group Problem Solving (ED03332) ✍ CHIU Ming Ming
2003-04	A Program for Children with Dyslexia in Chinese (ED03880) ✍ CHENG Pui Wan	2003-04	Assessment of Critical Thinking with Open-Ended Questions: Psychometric Properties and Scoring Criteria (ED03696) ✍ HAU Kit Tai • HO T Irene*
2002-03	Rudeness and Status Effects during Group Problem Solving: Do They Bias Evaluations and Reduce the Likelihood of Correct Solutions? (SS02426) ✍ CHIU Ming Ming	2003-04	Facilitating the Development of Fraction Concepts in Third-Grade Classroom: Measurement Approach (ED03755) ✍ NI Yujing • SAXE Geoffrey B*
2003-04	Effects of Group Processes on Correct Contributions during Classroom Group Problem Solving (SS03743) ✍ CHIU Ming Ming	2003-04	Perceptual and Motor Learning: An Exploratory Study (ED03518) ✍ SHIU Ling Po

RESEARCH PROJECTS

Effects of a Health-Related Curriculum, Teacher Development Programme, and Student Assessment on School Physical Education

✉ HA Sau Ching Amy • JOHNS David Paul •
CHAN Wan Ka Daniel • SUM Kim Wai
Raymond

☐ 1 September 2004

❖ Research Grants Council (Earmarked Grants)

To face the challenge of change in school physical education, the purpose of this study is to evaluate the effects of a health-related curriculum, a teacher development program and a student's assessment and accountability system on the quantity and quality of Hong Kong primary and secondary school physical education. By using Fullan's (1982) multidimensional framework, twenty schools and their 40 classes (1600-1800 students) will be randomly assigned to one of the four conditions: 10 classes will be taught in their usual manner by teachers with the new curriculum materials [Control, C], 10 classes will be taught by teachers who will receive both curriculum materials and a staff development program [Experimental 1, E1], 10 classes will be taught by teachers with the new curriculum materials and a student's assessment is required [Experimental 2, E2]. The last 10 classes will be taught by teachers who will receive colloquial new curriculum materials, a staff development program, and a student's assessment which is also required [Experimental 3, E3]. To examine and compare the effects of the four settings, students' fitness levels, physical activity levels, and their attitudes towards physical activity will be assessed

before and after a 10-month period (one full academic year). In addition, teachers' receptivity to curriculum change, curriculum context and teaching behavior during classes, and an in-depth interview for all participated schoolteachers will also be conducted. (CU04157)

Strategies for Three-Dimensional Body Movement and Plantar Force Exertion when Walking in Slippery Construction Sites

✉ HONG Youlian

☐ 1 March 2005

❖ CUHK Research Committee Funding (Direct Grants)

The purpose of this study is to investigate the characteristics of postural control in slips and falls, to educate workers about how to adjust their posture when walking on slippery surfaces, and to contribute to the knowledge on postural control and the prevention of slips and falls.

Two kinds of footwear, two kinds of walkway properties, and four kinds of contaminants will be selected as independent variables. A mechanical slip hazard test will be conducted to evaluate the available friction for each of the sixteen test combinations. Sixteen male subjects will be recruited to participate in a walking test. Trials without slips will be recorded by video cameras and with a force plate and insole pressure distribution system. Three-dimensional body movement analysis will be conducted with a motion analysis system. The data will be time normalized and evaluated from foot strike to take off at selected time points between conditions with different rates of slipperiness.

The results are likely to show the potential for slips in the simulated construction site. A gait and body movement adaptation strategy will also be

determined. The goal will be to attract attention, educate workers, and perhaps provide information for the government to minimize and eliminate these hazards through the implementation of suitable preventative measures on construction sites.

(ED04772)

Evaluation of Energy Expenditure and Cardiovascular Health Effects from Tai Chi and Walking Exercise

✍ HUI Sai Chuen • WOO Jean (Medicine & Therapeutics) • KWOK Chi Yui Timothy (Medicine & Therapeutics)

□ 1 September 2004

❖ Health & Health Services Research Fund

Purpose: To investigate and compare the energy expenditure and cardiovascular disease (CVD) risks improvements from a 12-week Tai-Chi and walking exercise intervention program.

Hypothesis: Tai-Chi and walking exercise are equally effective to raise the metabolic rate and to reduce the CVD risks.

Design: 300 healthy adults men and women, will be randomly assigned into the either Tai-chi, walking, or control groups, for 12 weeks. Resting energy expenditure and exercise energy expenditure for performing a typical single bout of Tai-Chi exercise and walking exercise will be measured before and after intervention for the two exercise groups. Blood screening for blood lipids and glucose profiles, and body composition will be measured for all subjects before and after the interventions. Both Tai-Chi and walking intervention will be similar and include 12 weeks of exercise, 5 days per week, with 10 min warm-up, 25 min exercise, and 10 min cool-down, in each exercise session.

Outcome Measures and Analysis: Energy expenditure, in VO₂ and Kcal, will be measured by a portable metabolic analyzer (COSMED K4b2) with telemetry function. Blood screening with standard biochemistry analysis will be implemented at the Clinical Laboratory of the Prince of Wales Hospital. Body composition will be measured by DEXA machine. CVD risks measures include resting blood pressure, total, LDL-, and HDL-cholesterol, triglycerides, fasting blood glucose, and body fat. These measured variables before and after intervention will be compared by repeated measures MANOVA and subsequent univariate ANOVA analysis.

(ED04861)

A Survey Study on Students' Physical Fitness and Their Attitude Towards Physical Education 04-05

✍ HUI Sai Chuen • SUM Kim Wai Raymond • CHAN Wan Ka Daniel • MORROW James R.*

□ 1 October 2004

❖ Education & Manpower Bureau, HKSAR Government

In Hong Kong, it is believed that physical fitness is an integral part of the physical education curriculum in Hong Kong schools. Particularly health-related physical fitness because it emphasizes appropriate level of cardio-respiratory fitness, muscular strength and endurance, musculo-skeletal flexibility, and desirable body composition, which are important components for health maintenance and disease prevention. The P.E. curriculum suggested by the Education and Manpower Bureau (EMB) has been revised recently to reflect the current trends of fitness and activity emphases. In order to evaluate the effectiveness of the new P.E. curriculum, there is a need to establish baseline data of physical fitness,

activity level, values and attitude towards exercise of Hong Kong students. These fitness and activity evaluation should be conducted periodically, preferably annually, so as to reflect the changes in fitness and activity levels which may be impacted by the P.E. curriculum reform. Such evaluation for secondary school students were launched two years ago and for the primary school in early this year. The EMB has suggested that such evaluation should be conducted every two years. Since the last survey on secondary school was two years ago, there is a need to re-examine the secondary school students again in the coming school year. The purpose of this study is to conduct a health-related physical fitness and activity evaluation for local secondary schools so that current profiles and changes in fitness and activity of Hong Kong secondary school students can be evaluated. The secondary purpose is to examine students' participation in physical activities, their exercise habits, their development in generic skills through PE, as well as their values and attitudes towards PE. Approximately 6500 secondary school students will be recruited. Normative data will be generated and compared with previous assessment. (ED04368)

Virtual Trainer: An Innovated Approach for Exercise and Health Promotion

✍ HUI Sai Chuen • CHAN Kai Ming
(Orthopaedics & Traumatology) • MORROW
James R.*

☐ 24 October 2004

❖ Research Grants Council (Earmarked Grants)

Regardless the considerable evidence about the health benefits from regular physical activity, the majority of citizens are still not active enough to reach the recommendation. Common barriers to exercise

compliance are “the lack of time” and “too busy to seek professional advice on exercise”. However, with the advances in information technology, people can constantly be reminded of the need for exercise, and receive professional advice on exercise training through lifestyle activities. The purpose of this study is to develop an interactive web-based computer program, with the integration of a telecommunications system (such as mobile phone messages), that can be disseminated through the Internet and mobile phone to encourage exercise participation and to improve the health and fitness status. The entire system will be termed “Virtual Trainer” (VT) because it will serve the same function as a physical form of personal trainer. To evaluate the effectiveness of the VT program, approximately 100 middle-class adults will be invited to engage in an intervention program as prescribed by the VT program for 3 months. Another 50 matched subjects will be recruited as control. Pre-and post-health and fitness evaluation will be assessed from the VT program on-line as well as from laboratory tests. Blood profiles will be evaluated during the lab visits of pre- & post tests. Exercise compliance over the 3-month period will be examined from the exercise log of the VT program (a Scheduler Program). The maintenance effect will also be assessed 6 months after the intervention.

(CU04158)

Development of a Health-Related Physical Fitness Assessment Inventory: A Preliminary Study

✍ HUI Sai Chuen • MORROW James Jr.*

☐ 15 March 2005

❖ CUHK Research Committee Funding (Direct Grants)

Health-related physical fitness assessment is a popular procedure to evaluate the status and changes of physical fitness. Regardless the popularity of health-related fitness assessment in schools and community, tremendous manpower and resources are required in order to complete health-related physical fitness assessments, especially in mass testing situation. In order to ease the requirement on manpower and resources, the purpose of this proposal is to develop a health-related physical fitness assessment inventory, and to examine the content validity and construct validity of this assessment instrument. A Chinese version questionnaire will be developed to assess functional abilities of the corresponding health-related fitness components. Content validity will be evaluated by five experts in fitness testing and a pilot test will be implemented afterwards. Then 100 adults will be recruited to complete the revised version questionnaire as pilot test to fine-tune the questionnaire. Another 500 Chinese adults will be recruited to complete the final questionnaire and to undergo a confirmatory factor analysis. Construct validity will be determined from the factor analysis.

(ED04515)

Skill Upgrading Scheme - Phase I Courses for Practitioners in Sports Industry (2004-2005)

- ✍ SUM Kim Wai Raymond • LO Yuen Cheong (Physical Education Unit)
- ☐ 4 October 2004
- ❖ Education & Manpower Bureau, HKSAR Government

The purpose of this project is to provide various professional courses for practitioners in the sports industry in Hong Kong from October, 2004 to March, 2005. The funding body of this project is the

Education & Manpower Bureau (EMB), HKSAR. The HKSAR is recently promoting “Skill Upgrading Scheme” to different industrial sectors. As sports industry is the new sector in the scheme, the EMB invites the Department of Sports Science & Physical Education of CUHK to be one of the courses providers.

There are four modules in this new scheme:

- 1) Physical Fitness and Health;
- 2) Facility Management;
- 3) Activity Management; &
- 4) Sport Skills.

Courses will be provided by the CUHK from the modules are as follows:

- 1) Physical Fitness Test (Field)
- 2) Physical Fitness Test (Laboratory)
- 3) Program Management in Sport and Recreation
- 4) Customer Service and Handling Skills
- 5) General Skills for Sports Training
- 6) Instructional Skills in Racket Games
- 7) Instructional Skills in Fitness Training

(ED04567)

Influence of Pre-Exercise Glycemic Load Meal on Immune Response and Running Performance

- ✍ WONG Heung Sang Stephen
- ☐ 1 December 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

Consumption of carbohydrate (CHO) beverage before, during, and after prolonged intensive exercise has been shown to reduce the physical stress to immune system. However, little research, if any, has been undertaken to investigate the role of glycemic index (GI) and glycemic load (GL) of a pre-exercise meal on immune function and exercise

performance. Therefore, the purpose of the proposed study is to examine the effect of diet with different glycemic index and glycemic load on running performance and immune response. Twelve endurance-trained male runners will be recruited in this study. Two hours before the run and after an overnight fast, each subject will randomly consume one of the following isocaloric meals: high-GI and high-GL (HH); high-GI and low-GL (HL); or low-GI and low-GL (LL). Carbohydrate intake (% of energy intake), GI, and GL are 75%, 82, and 70 for the HH; 15%, 82, and 25 for the HL; 75%, 36, and 25 for the LL. Each trial consists of a 1-hr run at 70% VO_{2max} on a level treadmill followed by a 10-km performance run. Immune and physiological responses will be measured throughout the experimental periods. The results of this study are expected to generate new knowledge to nutritional science and provide practical information for exercise scientists, athletes and coaches in Hong Kong and China in preparation for the 2006 Asian Games and the 2008 Olympic Games in Beijing.

(MD04612)

Effect of Low and High Pre-Exercise Glycemic Index Meal on Running Performance when Carbohydrate-Electrolyte Solution is Consumed during Exercise

✉ WONG Heung Sang Stephen • HARGREAVES Mark* • CHUNG Pak Kwong*

☐ 1 January 2005

❖ Research Grants Council (Earmarked Grants)

Pre-exercise consumption of low glycemic index (GI) carbohydrate-rich foods has been shown to enhance exercise performance. However, in endurance

exercise, the most effective and commonly used strategy by athletes to promote carbohydrate (CHO) availability is to ingest high GI drinks or foods during the event. Therefore, the purpose of this investigation is to examine whether the GI of pre-exercise CHO intake has any impact on exercise metabolism and subsequent performance when CHO are consumed during the exercise session. Fifteen endurance-trained male runners will be recruited in this study. Two hours before the run after an overnight fast, each subject will consume an isocaloric meal containing either low (GI = 37) or high (GI = 82) GI CHO foods that provided 1.5 g $CHO \cdot kg^{-1}$ body mass (BM) in random order. A low energy jelly will be ingested as control on other occasion. Each trial consisted of a 21-km performance run on a level treadmill. Carbohydrate sports drink of 2 $ml \cdot kg^{-1}$ BM will be ingested by the subjects at every 2.5-km during the run. Physiological and biochemical responses will be measured throughout the experimental periods. The results of this study are expected to add knowledge to nutritional science and provide practical information for exercise scientists, athletes and coaches in Hong Kong and China in preparation for the 2006 Asian Games and the 2008 Olympic Games in Beijing.

(CU04386)

Leisure-Time Sedentary Behaviors, Physical Activity and Overweight of Primary Schoolchildren in Hong Kong

✉ WONG Heung Sang Stephen

☐ 1 April 2005

❖ CUHK Research Committee Funding (Direct Grants)

Childhood obesity has received considerable research attention since it will, in most cases, track into

adulthood and become associated with the increased risk of high blood pressure, dyslipidemia and hyperinsulinemia, which are believed to be the clusters of cardiovascular risk factors. Physical inactivity and sedentary habits are regarded as the lifestyle associated with the rising prevalence of overweight and obesity. In Hong Kong, however, there is little research on the trends of childhood overweight and obesity, as well as its relationship to physical activities and sedentary behaviors including TV viewing, computer use and other types of sedentary habits. Therefore, the purpose of the present study is to assess the relationship between leisure-time physical activity, sedentary behavior and overweight in Hong Kong children. One thousand children from 10 primary schools aged between 9 and 12 (primary 4 to 6 students) will be invited to participate in this study. A Chinese version questionnaire based on Children's Leisure Activities Study Survey (CLASS) (Physical Activity Monitoring and Evaluation Toolkit, 2003) will be used to evaluate the participants' physical activity and sedentary habits. This study aims to assess the influence of all possible sedentary habits on Hong Kong children. The findings of the present study will help the local health professionals develop effective intervention for prevention of childhood obesity and generate practical information by which the leisure-time physical activity might be enhanced. (ED04557)

Please refer to previous issues of this publication for more details of the following ongoing research at the department:

Edition Title/Investigators

- 2003-04 Effects of an In-service Teacher Development Program on the Quality of School Physical Education (ED03563)
✍ HA Sau Ching Amy • JOHNS David Paul • CHAN Wan Ka Daniel • SUM Kim Wai Raymond
- 2002-03 Designing Athletic and Casual Footwear Based on Functional Testing and Computer Simulation (EE02586)
✍ HONG Youlian • HUI Kin Chuen (Auto. & Computer-Aided Engin.) • LI Jingxian# • DU Ruxu (Auto. & Computer-Aided Engin.)
- 2003-04 Biomechanics Analysis in Lumbar Spinal Load and Muscular Strength in Primary Children When Walking with Loaded Backpack (MD03312)
✍ HONG Youlian • CHENG Chun Yiu Jack (Orthopaedics & Traumatology) • LI Jingxian# • LIM Young Tae*
- 2003-04 The Influence of 15-week Intervention of Different Exercise Forms on Posture Stability in the Elderly People (ED03436)
✍ HONG Youlian • LI Jingxian#
- 2003-04 Survey on Students Physical Fitness and Their Attitude towards Physical Education 2003-2004 (ED03419)
✍ HUI Sai Chuen • SUM Kim Wai Raymond
- 2003-04 Effect of Consumption of Scientifically Formulated Sports Drink on Running Performance after Pre-Exercise Glycemic Index Meal (MD03743)

✍ WONG Heung Sang Stephen

RESEARCH PROJECTS

A Comparison of Attitudes and Exercise Habits of Alumni from Universities with Different Physical Education Activity Programs in Hong Kong

✍ LEUNG Fung Lin Elean

☐ 1 April 2005

❖ CUHK Research Committee Funding (Direct Grants)

According to Dishman and Dunn (1988), late adolescence is an appropriate time for conducting health promotion activities. Since many adult behaviors are established during late adolescence, university-required physical education courses have great influences on healthy life style. The purpose of this study is to compare the attitudes and exercise habits of alumni from universities with different physical education activity programs in Hong Kong. The findings are useful in determining the future trend and status of the discipline.

Subjects will be selected from the alumni of two research universities in Hong Kong. They are the

Chinese University of Hong Kong (CUHK) and the Hong Kong University (HKU). Two thousand alumni, who had graduated between 1994 and 2003, will be randomly selected. One thousand subjects from CUHK, one thousand subjects from HKU. A questionnaire will be designed to determine the attitudes and exercise habits of the alumni. Corresponding addresses of the randomly selected subjects will be obtained from the alumni office of each university. The survey instrument will be mailed to them. Alumni will return the questionnaires to their respective university. All returned questionnaires will be collected and mailed to the researcher.

Multivariate analysis of variance (MANOVA) will be initially used to determine the differences in perceived value the alumni placed on their university PEA program in contributing to their current knowledge and attitudes towards fitness, and their current exercise habits. An alpha level of .05 will be used to determine significance. Descriptive statistics will also be computed.

(ED04738)

RESEARCH PROJECTS

Characterising the Motive Component of Approaches to Learning and Investigating How It Can Be Influenced by the Teaching and Learning Environment

✉ KEMBER David Richard • YAN Louisa*

☐ 1 September 2004

❖ Research Grants Council (Earmarked Grants)

Students commence university with an orientation comprised of a number of motivational components. This study aims to better characterise both the overall orientation and the constituent motivational components, since there are a number of concerns about the applicability of traditionally used constructs, such as extrinsic, intrinsic and achievement motivation, in Confucian-heritage contexts and in higher education generally. The investigation will be through semi-structured interviews with 36 undergraduate students from nine programmes representative of both major disciplines and Hong Kong universities. Arranging the sampling by programme will facilitate the development of case studies which show how the initial motivational orientation becomes modified by the curriculum, the teaching and learning environment and the ethos within departments. From the case studies it will be possible to derive principles showing how contextual elements of the learning environment influence motivation. This will provide guidance to teachers in how to motivate students to produce high quality learning outcomes.

(CU04104)

Understanding the Ways in Which the Design Features of Educational Websites Impact on Student Learning Outcomes

✉ MCNAUGHT Carmel Marie • KEMBER David Richard • LEUNG Yin Ping • LAM Lai Chuen

☐ 1 January 2005

❖ Research Grants Council (Earmarked Grants)

The project aims to characterize the ways in which educational websites used in courses in higher education can support student learning. The first stage of the project involves the application of an instrument which enables any educational website to be described in terms of whether the design of the website supports a) teaching and learning functions such as communicative interaction, feedback on learning progress, study program management and content resources for students to engage with; and b) what learning design is used to support these functions. This instrument enables a profile to be developed of each case in the project. There is a range of student outcome measures for each case in the project, including: generic perception measures such as students' approaches to their learning, and students' perceptions of their development of capabilities; students' perceptions of whether and how various web features of the learning environments in their courses support their learning; and students' performance on an open-ended task relevant to the course in question. Twenty-four case courses will be selected from universities in Hong Kong where the Web is a key component of the course. Structural equation modeling will be used on the student data to develop a model which indicates relationships between the value students place on the specific features of the educational websites in the course in question, students' discipline-based learning, their approaches to

learning, and their development of capabilities such as critical thinking and communication skills.
(CU04105)

Provision of Services for Revising Learning and Teaching Materials of the Compulsory Module of the Science & Technology Curriculum (S4-5)

✉ MCNAUGHT Carmel Marie • LAM Lai Chuen
• LEE Wai Yan • ONG Hock Chun Daniel
(Physics)

□ 1 April 2005

❖ Science Education Section, Curriculum Development Institute, Education and Manpower Bureau

The services is about revising the Chinese version of the learning and teaching materials of the Compulsory Module of the Science & Technology Curriculum (S4-5).
(ED04509)

Please refer to previous issues of this publication for more details of the following ongoing research at the department:

Edition Title/Investigators

2003-04 Investigating the Mechanism for the Development of Graduate Capabilities (ED03626)

✉ KEMBER David Richard • LEUNG Yin Ping

2003-04 e3 Learning-Enrich, Extend, Evaluate Learning (ED02526)

✉ MCNAUGHT Carmel Marie

2003-04 Student Engagement Profiles: A Means for Tailored Pedagogical Interventions Across All University Programs (ED02669)

✉ MCNAUGHT Carmel Marie • KEMBER David Richard • HAZLETT Clarke Blaine (Faculty of Medicine (Planning Office))

2003-04 Incorporating Skills in Metacognition and Case-Based Teaching and Learning in Tertiary Science Education-Research Staff for Scaffolding and Evaluation of Teaching /Learning Processes (ED02807)

✉ MCNAUGHT Carmel Marie