RESEARCH PROJECTS

Provision of Research Service for 2004 Summer Reading Programmes

✍ CHUI Ching Ying

❑ 1 November 2003

❖ Leisure & Cultural Services Department, HKSAR Government

Provision of research service to study on the published children literature to develop text-based materials for organizing a large scale exhibition which is one of the major events of the 2004 Summer Reading Programme for Hong Kong Public Libraries and to deliver a full research report on the subject.

(AL03473)

School & University Partnership for Educational Renewal Project (SUPER Project) (2002-03)

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

❑ 1 September 2002

❖ 40 Schools

In the school year 2002-03, there are 34 primary schools and 6 secondary schools which have joined 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 realize 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, CLDP (Curriculum Leadership Development Programme), stock-taking and study tour.

(ED02935)

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

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

❑ 1 September 2003

❖ 51 Schools

In the school year 2003-04, there are 50 schools and 1 secondary school which have joined the School & University Partnership for Educational Renewal (SUPER) Project.

The objectives of the project are:

(1) To facilitate the development of school-based curricula and action plans which help realize the aims of education;

(2) 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, CLDP (Curriculum Leadership Development Programme), stock-taking and study tour.

(ED03398)

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

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

❑ 1 September 2003

❖ Education & Manpower Bureau, HKSAR Government

The project oral and Civic Education (MCE) School-based Curriculum to develop Students' Five Priority Values in Hong Kong Primary schools" is an action research project which aims to find out how primary schools in Hong Kong help students develop the five priority values through MCE school based curriculum.

The foci of the project are:

1. To identify the *key factors* in designing an effective MCE school based curriculum contributing to developing students' five priority areas (5 p.v.) namely Perseverance, Respect for others, Responsibility, National Identity and Commitment.

2. To trace the *impact* of the MCE activities on students with respect to how students develop the 5 p.v. through participating in these activities.

In this action research project, it is envisaged that there will be a tripartite partnership and collaboration between the 7 primary schools, the Chinese University of Hong Kong and the Education and Manpower Bureau (EMB).

(ED03418)

Faculty of Education

Focus Group Study on Use and Quality of Learning & Teaching Materials

- ✍ LEE Chi Kin John ● YIN Hong Biao ● KO Mo Lin Regina (Ctr for University & School Partnership)
- ❑ 17 February 2004
- ❖ Education & Manpower Bureau, HKSAR Government

A Qualitative Study on the Use and Quality of Learning and Teaching Materials shall be conducted through conducting focus groups (hereinafter known as the Service). The target groups of participants of the study are: 1) principals; 2) teachers; 3) parents; and 4) students from both primary and secondary schools.

Specific objectives of the survey are as follows:

1. To identify the usage of different learning and teaching materials by teachers and students; and

2. To identify the perceived quality of different learning and teaching materials.

Other areas of concern are:

1. To collect information about the stakeholders' views on the price and weight of textbooks;

2. To collect information about the expenditure on acquiring learning and teaching materials;

3. To collect information about the textbook selection process including the involvement of parents and other stakeholders.

(ED03337)

The Network Learning Environment from Flat-land to Space-land: The Higher Dimensional Space Odyssey

從平面到立體：探索高維空間神奇旅程網絡學習環境

- ✍ 李芳樂 LEE Fong Lok ● 李浩文 LEE Ho Man Jimmy (Dept of Computer Science and Engineering) ● 羅浩源 LAW Huk Yuen ● Wang Lu*
- ❑ 1 January 2004
- ❖ 北京市教育委員會科技發展計劃

本研究主要結合網絡技術、智能幾何描繪技術和學習情境理論 (situated learning) 研究新一代基礎教育網絡學習系統原型。 此系統能夠讓學生在中國傳統故事的學習環境中，使用智能幾何繪圖工具和網絡學習工具，從一維空間探索二維空間、從二維空間探索三維空間，進而推廣到探索高維空間，從而培養學生的各種幾何空間知識和技能訓練。 以此促進學生在數學、信息技術、科學、研究性學習、綜合活動實踐、以及歷史和中文等學科上的知識整合，培養學生觀察、類比、歸納、推理等多種分析問題和解決問題的方法技巧。 掌握此種方法技巧也對其它學科的學習有裨益，實現素質教育的目的，最終解決北京市基礎教育信息化的關鍵問題。 (ED03609)

Development of Language Across the Curriculum for English-medium Education

- ✍ MAN Yee Fun Evelyn ● CONIAM David ● CHUN Ka Wai Cecilia ● MAK CHAN Shuk Yin
- ❑ 4 April 2004
- ❖ Education & Manpower Bureau, HKSAR Government

This project aims to explore how *language across the curriculum* (LAC) can be more effectively implemented in English-medium (EMI) schools in Hong Kong through professional development of both English teachers and subject content teachers. Based on a teacher development course "ESL in the Mainstream" developed in South Australia, the project seeks to research and evaluate how a peer training and sharing model of teacher development can enhance the delivery skills of English and subject content teachers, improve their teaching strategies and affect the curriculum and culture of an English-medium school. The project seeks to identify the conditions necessary for the successful implementation of a language across the curriculum approach in school, with the aim of making policy recommendations for promoting such an approach in local EMI classrooms. In addition, the project aims to make recommendations for the development of a structured teacher education programme that would enhance teaching and learning effectiveness for English-medium education.

(ED03854)

Factors Affecting the Use of Putonghua to Teach Chinese Language in Hong Kong Primary & Secondary Schools

✍ TONG Choi Wai

❑ 1 February 2004

❖ Language Fund, Standing Committee on Language Education & Research, HKSAR Government

To extract the factors affecting the use of Putonghua as the medium of instruction for Chinese Language, this study is to conduct the first round interview with school heads & teachers for a total number of 16 primary & secondary schools. Those factors

extracted will provide a framework for further investigation and their correlation with students' performance on Chinese literacy.

(AL03455)

Professional Development Course for Secondary School Graduate Teachers 2003-2004

✍ WONG Hin Wah

❑ 1 October 2003

❖ 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 Professional Development Course for Secondary School Graduate Teachers in 2003/2004 school year. The primary aims of the one-year part-time Course are to provide graduate schools teachers with up-to-date methods of teaching and learning in secondary schools, and to equip them with basic knowledge and skills in action research and mentoring support in schools through action learning projects.

The Course is designed:

to update teachers on new developments and innovations in their major subject discipline;

to introduce teachers to the up-to-date theories and practice of mentoring support in schools;

to provide theoretical knowledge and practical skills on Action Research;

to widen teachers' perspectives in student guidance, counseling and discipline in schools;

to provide training in management skills so as to prepare teachers to assume the role as a mid-leave leader; and

to update teachers on developments and current issues in curriculum, teaching and school education.

(ED03975)

Curriculum Leadership Course of Science Education Key Learning Area - Science (S1-3)

- ✍ YIP Din Yan ● CHEUNG Sin Pui ● MAK Se Yuen
- ❑ 1 March 2004
- ❖ Education & Manpower Bureau, HKSAR Government

The Courses aim to:

nurture curriculum leaders in Science (S1-3) for meeting the challenges put forward in "The Way Forward in Curriculum Development - Learning to Learn" prepared by Curriculum Development Council;

enhance the knowledge and skills of panel heads and co-ordinators in key tasks and curriculum change, learning, teaching and assessment and school-based curriculum development; and

familiarize curriculum leaders with the directions outlined in the Science Education Key Learning Area Curriculum Guide (P1-S3) prepared by the Curriculum Development Council.
(ED03977)

Promoting the Mastery of Investigative Skills in Junior Secondary Science Students

- ✍ YIP Din Yan ● CHEUNG Sin Pui
- ❑ 15 March 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The present junior science curriculum of Hong Kong emphasises the development of investigative skills through an inquiry-based approach. However, the practice in schools is counter to the achievement of this goal, as most practical activities are highly prescriptive and students are seldom provided with the opportunities to conduct independent and open-ended scientific investigations.

The proposed study aims to improve the quality of science teaching and learning by developing a strategy that fosters the mastery of investigative skills in junior science students. It also aims to promote understanding of the nature of science, which is an essential element of scientific literacy. The study involves the use of historical episodes in science and a written task that help students develop understanding of the nature of science and the methods of scientific inquiry. Students are then guided to apply these ideas in investigative work. As students become more proficient and confident in carrying out investigations, they will perform more open-ended and independent investigations, including project work related to scientific investigation. The effects of the intervention will be assessed by a Pre-test/Post –test design, and by interviews and questionnaire surveys of teachers and students.
(ED03429)

Formation of a Phonological Table of Archaic Chinese

- ✍ YU Nae Wing
- ❑ 1 April 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The formation of phonological tables of different times for different places can help revealing the chronological and geographical changes of the Chinese language and can therefore help tracing the

proper pronunciation of the characters for the currently used Chinese language, and the interchanging relationship of the characters appeared in different dialects of the same time. The formation of the Archaic Chinese phonological table is the Root and Foundation to all these studies. The most important and raw research materials used for the formation of the Archaic Chinese phonological table are found in the oracle bone inscriptions and bronze inscriptions, which were discovered at around the beginning of 20th century. The present applicant's research data will base on the oracle bone and bronze inscriptions in order to form a more complete and satisfactory Archaic Chinese phonological table. This present study will adopt research methods used in Sino-Tibetan linguistics, i.e. a more appropriate research method as the Chinese language is the main core in the study of Sino-Tibetan linguistics.

(AL03754)

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

Edition   Title/Investigators

2002-03   An Instrument for Measuring Teacher Concerns about School-based Curriculum Development (ED02836)
  ✍ CHEUNG Sin Pui

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)
  ✍ 崔晶盈 CHUI Ching Ying ● 趙明明 CHIU Ming Ming (Dept of Educational Psychology) ● 李子建 LEE Chi Kin John ● 黃顯華 WONG Hin Wah ● 盧乃桂 LO Nai Kwai Leslie (Dept of Educational Administration & Policy) ● 余迺永 YU Nae Wing

1999-00   The Development of Secondary Students' English Language Abilities in Listening and Grammar in English Medium of Instruction Schools in Hong Kong: A Longitudinal Study (ED99001)
  ✍ CONIAM David

1998-99   Young Writer Website (ED98034)
  ✍ HO Man Koon

2002-03   Promotion of Putonghua (AL02653)
  ✍ HO Wai Kit ● WU Weiping (New Asia Yale-in-China Chinese Language Centre) ● LAM Kin Ping Majors

1995-96   The Status and Needs Assessment of Environmental Education in Primary Schools (ED95015)
  ✍ LEE Chi Kin John ● WONG Hin Wah

2001-02   Life-wide Learning Project (ED01358)
  ✍ LEE Chi Kin John ● WONG Hin Wah ● TSUI Hei Lai (Faculty Office of Education)# ● KO Mo Lin Regina (Ctr for University & School Partnership) ● MA Hing Tong (Ctr

for University & School Partnership)
● CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership)
● CHENG Kin Yee Daniel (Ctr for University & School Partnership)

2002-03 Evaluation of the Schools' Professional Collaboration Project (ED02678)
✍ LEE Chi Kin John ● TAM Wai Ming Frank (Dept of Educational Administration & Policy) ● KO Mo Lin Regina (Ctr for University & School Partnership)

2002-03 Consultancy Study on the Status and Development of Hong Kong Education City Limited (ED02515)
✍ LEE Chi Kin John ● WU Kam Wah#

2002-03 Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 3 - Support for Students and School Ethos) (ED02677)
✍ LEE Chi Kin John ● CHENG Kin Yee Daniel (Ctr for University & School Partnership) ● MA Hing Tong (Ctr for University & School Partnership) ● FUNG Yee Wang ● LAU Siu Ying Patrick (Dept of Educational Psychology) ● WALKER Allan David (Dept of Educational Administration & Policy) ● WU Kam Wah#

2002-03 Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain

1 - Management & Organization) (ED02699)
✍ LEE Chi Kin John ● CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership) ● KO Mo Lin Regina (Ctr for University & School Partnership) ● TAM Wai Ming Frank (Dept of Educational Administration & Policy) ● WALKER Allan David (Dept of Educational Administration & Policy) ● WU Kam Wah#

2002-03 Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 2 - Teaching and Learning) (ED02766)
✍ LEE Chi Kin John ● CHEUNG Yuet Sai Louisa (Ctr for University & School Partnership) ● FUNG Yee Wang ● MA Hing Tong (Ctr for University & School Partnership) ● WU Kam Wah#

2002-03 Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 4 - Students' Attainment) (ED02769)
✍ LEE Chi Kin John ● CHENG Kin Yee Daniel (Ctr for University & School Partnership) ● KO Mo Lin Regina (Ctr for University & School Partnership) ● LAU Siu Ying Patrick (Dept of Educational Psychology) ● TAM Wai Ming Frank (Dept of Educational Administration & Policy) ● WU Kam Wah#

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

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

2001-02 Development of Support Measures for Student Adaptation to English-Medium Schools (ED01576)

    ✍ MAN Yee Fun Evelyn ● CONIAM David ● BRUCE Christine Anne# ● LEE Kit Bing Icy (Hong Kong Institute of Educational Research)# ● CHEUNG Yuet Yau* ● TAM Wai Kwan Cecilia*

2001-02 Ensuring Enhancement of English Language across the Curriculum through Professional Teacher Development (ED01455)

    ✍ MAN Yee Fun Evelyn

2002-03 A Study of Vocabulary Size of Hong Kong Students and the Nature of English Vocabulary Input from Textbooks (ED02866)

    ✍ TANG Lai Yiu Eunice

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 ● CHUI Ching Ying ● NG Mau Yuen Eric ● HO Ying Ping* ● LAM On* ● YEUNG Kwai Hong*

2001-02 "Enhancement of Students' Mathematics Problem Solving Abilities by the Systematic Introduction of Variations" (ED01333)

    ✍ WONG Ngai Ying ● LAM Chi Chung ● LEUNG Shuk Kwan Susan* ● MARTON Ference* ● WONG Ka Ming Patrick ● LEUNG Shuk Kwan Susan*

2002-03 Conditions of Professional Practices in Hong Kong Secondary Schools: Does Subject Pedagogy Matter at all? (ED02988)

    ✍ YEUNG Sau Chu Alison ● LAM Chi Chung ● MAN Yee Fun Evelyn

RESEARCH PROJECTS

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)

- ✍ CHENG Hon Man Roger
- ❑ 16 March 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

This project aims to research into the sources of moral education in Hong Kong in transition from a British Colony to a Chinese Special Administration Region, taking two new approaches. Firstly, it focuses on "storied morality" by studying personal narratives of moral values within recent thirty years (1974-2003). Secondly, it locates moral education within the background of values education, which is a relatively new area of research and development in Hong Kong. Moral education and civic education have been assigned as one of the four key tasks in education reform and curriculum reform on Hong Kong since 1997. But how should moral education be conducted after 1997? What are the sources of moral education for those educational practitioners who aspire to become values educators, in which moral values play an important part?

This project conducts threefold qualitative study into a targeted group of 90 participants. Firstly, 90 will be requested to reply a pilot questionnaire (expecting 50 returns or more). Secondly, based on the analysis of the replies, 20 to 25 would be invited to attend focus group interviews. It tries to understand sources of moral education in Hong Kong (1974-2003) through their personal narrative and

their "storied morality" centering on the research problem: "How have sources influenced their moral lives (in which the identity of moral educator plays an important part)?" This narrative inquiry into the aspiring moral educators will throw light on and prepare foreground for further research on moral education in Chinese societies (taking Hong Kong as the initial case).
(ED03564)

Voices under Patriarchy and Capitalism: Life Histories of Women Garment Workers in HK, 1950-2000

- ✍ CHOI Po King Dora ● YIP Hon Ming (Dept of History) ● PUN Ngai* ● WONG Yuk Lin Renita*
- ❑ 15 November 2003
- ❖ CUHK Research Committee Funding (Direct Grants)

This project sets out to collect and analyze the life histories of women workers in the garment industry in Hong Kong over the last half-century. Garment-making was one of the two most important industries in Hong Kong's post-war economic success. Now that industrial production has declined, a documentation of the life histories of these workers will reveal important transformations in the social history of Hong Kong, and will also serve as an important corrective to existing structural accounts of economic changes. Despite being the mainstay of industrial production, women workers have been grossly neglected in local labour history, and our project hopes to fill in this gap. Furthermore, we would like to highlight the role of gender in the formation of capitalistic relations of production, as well as the specific mode of interaction between patriarchy and capitalism in a

predominantly Cantonese society such as Hong Kong.

(SS03530)

Literacy Performance of Hong Kong Secondary Schools: The Trial Study of OECD/PISA2006

- ✍ HO Sui Chu ● YIP Din Yan (Dept of Curriculum & Instruction) ● KWONG Wai Leung (Hong Kong Institute of Educational Research)
- ❑ 1 March 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The Programme for International Student Assessment (PISA) is a new regular survey of 15-year old 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 trial 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 schools' instructional efforts and for students' leaning as well as insights into curriculum 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. The fund requested in this application are for a trial study to accomplish the following steps: (1) construct the sample design,; (2) translation of questionnaires and assessments; (3) field test the student questionnaire and assessment in 30 schools; and (4) prepare for the main study of HKPISA 2006. Following this pilot study, funds from QEF and RGC will be sought to the full study.

(ED03577)

School Decentralization and Parental Involvement in Children's Education: A Comparative Case Study

- ✍ HO Sui Chu
- ❑ 1 July 2004
- ❖ Fulbright Hong Kong Scholar Programme

The global tendency of school systems to decentralize their curricular, personnel, and organizational decision making is widely noted in the literatures of sociology and public administration. This tendency toward decentralization, including Hong Kong's recent education reforms, has implications for the ways that parents involve themselves in their children's schools. There are also implications for parental involvement in the counter-tendency, seen in many U.S. states, to *re*-centralize control and accountability through the use of state-wide testing. Based mainly on U.S. data, and reflecting its still-largely decentralized control of schooling, scholars have shown the different ways in

which parents seek to participate. Some researchers document parents' roles in school management, while other investigations emphasize the ways that decentralization may lead to parental involvement at home, in school and in the community.

What are the implications of these cumulative findings for the current reform of Hong Kong's education system? Previous researchers have focused on Western school systems, but in Asia there are very different organizational and cultural traditions affecting schooling (Lee, 1996; Watkins & Biggs, 1996; Lam, Ho & Wong, 2002). In general, Asian educational systems remain highly centralized. However, Hong Kong's recent education reforms have developed decisions on staffing and budgeting to the school level (Ho, 1999). This creates uncertainly in the minds of school administrators about how and whether parents should join in the education of their children. Although parental levels of education have improved dramatically in recent years, many principals in Asian nations still regard parents as "learners" who need to be educated, rather than equal "partners" who share their power in decision-making. And many teachers in Asian educational system is to create an acceptance for all the stakeholders in the schools, and thus to fulfill the potential of decentralization by increasing parental involvement in students' learning and school effectiveness. Such involvement indirectly enriches civil society by creating a greater sense of ownership of public institutions.

(ED04657)

Quality Schools in Action

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

❑ 1 September 2003

❖ Quality Education Fund, HKSAR Government

Since 1998, the Hong Kong Institute of Educational Research, in collaboration with the Centre for University & Partnership of the Chinese University of Hong Kong, has participated in a number of school improvement development and research projects funded by the Quality Education Fund, HKSAR. We have awarded grants that accumulated to over $100 million (1998 to present). These school improvement projects include Accelerated Schools for Quality Education Project (HK-ASP 1998-2002), Quality Schools Project (QSP 2001-2003) and the Quality Schools in Action Project (2002-2004)

The objectives of the school improvement projects are to enhance the quality school education through an innovative and dynamic university-school partnership model of comprehensive school change. Through these projects, knowledge on school change and improvement are generated. The Hong Kong Institute of Educational Research and the Faculty of Education, The Chinese University of Hong Kong has gradually built up a Hong Kong research base on hat works in Hong Kong schools". These research findings shred lights to future reform policy and practice in Hong Kong primary and secondary schools.

The Quality Schools in Action Project focus on (1) enhancing teachers' professional abilities for continuous developments; (2) establishing network among schools; and (3) coaching some staffs of the regional education offices of Education & Manpower Bureau for school improvement endeavor.

(ED03904)

Initiating Organizational Change via School Self-evaluation

? PANG Sun Keung Nicholas

❑ 1 September 2003

❖ Schools of the Hong Kong Buddhist Association and Other Hong Kong Schools

Evidence-based organizational change has become a very recent trend in the school reform and improvement movement, in which school self-evaluation (SSE) plays an important role. School self-evaluation allows school leaders to successful institutionalize a self-renewal framework in daily managerial practices as well as to lead and manage change effectively and efficiently. Due to various hindrances at both the system level and the school organizational level, most of Hong Kong schools have not established a self-evaluation framework and the culture of self-renewal is weak in many schools. The project aims to help schools initiate organizational change via self-evaluation of performance and research into the factors that facilitate and hinder the implementation of school self-evaluation. School self-evaluation together with the use of performance indicators would allow the schools to explore their strengths and weaknesses at the school, teacher and student levels and therefore allow them to initiate organizational change that leads to school improvement. The research into the factors that determine the success and failure of implementing school self-evaluation would shed light to other schools in initiating change for school development and improvement. Both quantitative and qualitative data of the schools' performance will be collected and analyzed, the results of which will be the feedback to the schools concerned. In-service and consultancy will also be provided to these schools concerning the direction of change and development in the process of continuous improvement. Stakeholders of the schools, for example, students, parents and teachers, will all be benefited, since the quality of education is assured through the implementation of school self-evaluation. (ED03329)

Self-Evaluation, External Review and School Development

✍ PANG Sun Keung Nicholas

❑ 1 September 2004

❖ A Coalition of Hong Kong Schools

The Education and Manpower Bureau (EMB) has committed to promoting a strong School Development and Accountability (SDA) Framework in 2003 to enhance the quality of education based on systematic internal school self-evaluation, complemented by external school review. This project is initiated to complement the launch of the SDA Framework, and to provide professional support, in-services and consultancy for schools in undertaking systematic and evidence-based self-evaluation and in preparing for external school review. School self-evaluation includes three crucial stages, namely, school development planning, implementation of self-evaluation, and review and follow-up. The project will help the participating schools to go through these three stages, and covers salient aspects of self-evaluation which allow them to develop continuously. Knowledge and concepts of evaluation methods, data management, school self-assessment and reporting as well as skills and techniques in the use of performance indicators and success criteria will be highlighted in this project. A whole-school approach will be adopted in promoting self-evaluation in the participating schools. This helps bring about coherence and strengthen collaboration, communication and ownership among members of the school community. Based on the ideas and activities organized in this project, schools

will be better able to substantiate judgment on school performance, gauge their own progress and determine follow-up action in the processes of continuous school development.

(ED04423)

Conceptual Mapping of a Locally-relevant School Violence-prevention Program

- ? TAM Wai Ming Frank ● LAM Yee Lay Jack
- ❑ 1 April 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

Recent media coverage of incidences of school violence in Hong Kong reaffirms a well-known fact that anti-social behaviors of students are world-wide phenomena (Royer, & Debarbieux, 2003). Despite the proliferation of literature on this topic, no consensus has been reached in preventing or dealing with these thorny problems. In part, the complexity, types and origins of the violent behaviors vary considerably from case to case. In part, the socio-cultural contexts in which these problems arise defy some neatly devised categorization. All these raise the doubt whether some universal panacea will ever be found.

In this context, efforts of conceptually developing a locally relevant violence-prevention program for Hong Kong schools become urgent. The present proposal represents the one of the attempts to undertake some conceptual construction by a mixed methodology of using both case study approach and a comparative analysis. Through a series of intensive training workshops conducted by the researchers in a targeted school, the staff will work out a prototype violence prevention program under the supervision and guidance of the researchers. This program will put into practice and its effects on students' general

behaviors will be observed and assessed. It is expected that through modification and revision, a more successful program of prevention will be created. This will complete Phase One of the project. Phase Two will begin with a few more trial of the developed program for schools running into similar problems. If effects are satisfactory, features of the programs will be integrated and organized into a locally relevant conceptual model for wider adoption. In the last stage, relationship between intra-school factors and students' misbehaviors will be compared with models generated elsewhere. Findings should further enrich an area currently dominated by Western-specific information and data.

(ED03496)

A Study of Knowledge Transfer Through Mentoring in Schools

- ? TAM Wai Ming Frank ● YAP Foong Ha (Dept of Linguistics And Modern Languages)
- ❑ 1 April 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

While knowledge is often thought to be the property of individuals, a great deal of knowledge is both produced and held collectively in an organization. Such knowledge is readily generated when people work together in communities of practice such as schools, and the cultivation of this knowledge is the essence of developing a core competency in order to maintain its viability. The knowledge that constitutes core competency is more than a set of explicit knowledge that may be shared easily, and requires the "know-how" - a combination of implicit knowledge and routines - to put the explicit knowledge into practice. In this connection, mentorship can be seen as a useful program in which

the novice is induced to acquire the core competence of an organization by an experienced member. The present study employs a cognitive perspective of school mentorship in which the main function of the mentor is to help the novice teacher make connection between the implicit knowledge about his/her classroom and the school organization, and the explicit knowledge about pedagogy and schooling. The purpose of the study is to uncover the processes and strategies which make the connection between explicit and implicit knowledge of the novice teacher. (ED03686)

Images of Good Children: Moral Education Curriculums at Primary Level in the Great China

- ✍ TSE Kwan Choi
- ❏ 1 November 2003
- ❖ CUHK Research Committee Funding (Direct Grants)

The growing concern over moral education in the Greater China Region (Mainland China, Taiwan, Hong Kong and Macau) indicates the significance and necessity of conducting a comparative, rigorous and systematic study of the current state of moral education in their schools. Since the Chinese language and social subjects are the major sources of moral education to students, they are selected for analysis with regard to the ideological bearing of the curricular objectives, scope, distribution of topics, differences in emphasis, treatment of pedagogy and assessment, and the composite image of 'good children' to be transmitted.

The project will begin in early November 2003 and finish in late-October 2005. Document analysis as well as in-depth interview will be utilized to collect data for studying each society's moral education curricular. This study aims to offer a detailed content and textual analysis of the syllabuses and textbooks of Chinese language, morality and related social subjects which are widely used in the primary schools in the four Chinese Societies.

In light of a critical sociological perspective, the objective is to determine the very nature of morality represented and transmitted by the current formal curricular (syllabuses and textbooks) in the following aspects: 1) To examine the social, historical and institutional contexts for moral education curricular in these four societies; 2) To investigate the current objectives, contents of the formal moral education curricular at primary levels in each society; 3) To reveal the similarities and differences in the syllabuses and textbooks in terms of the very nature of morality.

Based on these findings about the contents of the Chinese language and social subjects syllabuses and textbooks in the four Chinese societies, recommendation could be made for curriculum development and planning. (ED03776)

Assistant Principals in Secondary Schools of Hong Kong: Their Work Lives and Preparation for the Principalship - A Longitudinal Investigation

- ✍ WALKER Allan David ● DIMMOCK Clive* ● KWAN Yu-Kwong* ● LEE Chi Kin John (Dept of Curriculum & Instruction)
- ❏ 30 September 2003
- ❖ Research Grants Council (Earmarked Grants)

The current educational reform environment in Hong Kong and elsewhere substantiates the importance of leadership in schools while, at the same time, expressing concern about the quantity, quality, preparation and development of future principals. Despite such concerns about the next generation of

school leaders, empirical investigation and substantive theories into the worklives, motivations and learning of assistant (vice) principals (APs) remains inadequate. This is particularly so in Hong Kong where research into APs, and particularly those who aspire to the principalship, is virtually nonexistent. Given this void, this project proposes to investigate the worklives of APs in secondary schools in Hong Kong, and particularly those who openly aspire to the principalship. The study therefore also targets the important area of what APs consider is appropriate preparation for the principalship and how the conceive the relationship been the APs and the principalship itself. The study will combine qualitative and quantitative methods to compare career APs with assistant/aspiring principals and to track a group of the latte over a two-year period. Together, the survey and longitudinal data will represent a theoretical and methodological contribution to the field of Educational Leadership in a central but neglected area, especially in Hong Kong. Findings will also lead to improved understanding of the nexus between system policy and leadership preparation and our understanding of the transition from AP to principal. The study also has the potential to inform policy makers of the development needs, career aspirations, beliefs and motivations of APs and future principals, and the transition between the two positions. (CU03289)

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

Edition   Title/Investigators

2001-02   Storied Lives of Teacher Educators and Their Sources: Narrative Inquiry into the Qualities of Educators, Teachers and Educated Persons (ED01334)
  ✎ CHENG Hon Man Roger

2002-03   Narrative Inquiry into Aspiring Values Educators in Hong Kong (Stage II Study): From Storied Lives to Inspired Practices of Values Education in a Chinese Society (ED02455)
  ✎ CHENG Hon Man Roger

2001-02   Quality Schools Project (ED01326)
  ✎ CHUNG Yue Ping Stephen ● CHIU Chi Shing (Dept of Curriculum & Instruction) ● LO Nai Kwai Leslie ● WONG Hin Wah (Dept of Curriculum & Instruction) ● LEE Chi Kin John (Dept of Curriculum & Instruction)

2002-03   A Study of Demand for Higher Education with Reference to Educational Finance in Hong Kong and Mainland China (CU02209)
  ✎ CHUNG Yue Ping Stephen ● LU Gen Shu*

2000-01   The Hong Kong-PISA Project: Monitoring the Quality of Education in Hong Kong from an International Perspective (ED20023)
  ✎ HO Sui Chu ● CHUNG Yue Ping Stephen ● TSANG Wing Kwong ● CHUN Ka Wai Cecilia (Dept of Curriculum & Instruction) ● SZE Man Man Paul (Dept of Curriculum & Instruction) ● YIP Din Yan (Dept

of Curriculum & Instruction) ● MAN Yee Fun Evelyn (Dept of Curriculum & Instruction) ● CHIU Ming Ming (Dept of Educational Psychology) ● WONG Ka Ming Patrick (Dept of Curriculum & Instruction) ● HO Wai Kit (Dept of Curriculum & Instruction)

2001-02 Parental Involvement in Children's Education: What Works and How It Works (ED01335)

    ✍ HO Sui Chu ● KWONG Wai Man*

2001-02 Programme for International Student Assessment 2003 in Hong Kong (ED01712)

    ✍ HO Sui Chu ● LO Nai Kwai Leslie ● CHUNG Yue Ping Stephen ● TSANG Wing Kwong ● WONG Ka Ming Patrick (Dept of Curriculum & Instruction) ● LAM Chi Chung (Dept of Curriculum & Instruction) ● YIP Din Yan (Dept of Curriculum & Instruction) ● CHIU Ming Ming (Dept of Educational Psychology) ● CHUN Ka Wai Cecilia (Dept of Curriculum & Instruction) ● SZE Man Man Paul (Dept of Curriculum & Instruction) ● MAN Yee Fun Evelyn (Dept of Curriculum & Instruction)

2002-03 Macao-PISA 2003 Project (ED02847)

    ✍ HO Sui Chu

2002-03 Preparation for Principalship Course (ED02972)

    ✍ LAM Yee Lay Jack

2001-02 Developing Schools through Self-evaluation (ED01672)

    ✍ PANG Sun Keung Nicholas

2002-03 Perception Survey on Changes in Teaching and Learning as Well as Student Performance in Secondary Schools Subsequent to the Reform of the Secondary School Places Allocation (SSPA) System (ED02907)

    ✍ TAM Wai Ming Frank ● LAI Man Hong ● LAM Ka Ka

2002-03 Further Evaluation on the Implementation of the Medium of Instruction Guidance for Secondary Schools (ED02461)

    ✍ TSANG Wing Kwong ● HUNG Fan Sing ● LO Nai Kwai Leslie ● CHEUNG Sin Pui (Dept of Curriculum & Instruction) ● HO Wai Kit (Dept of Curriculum & Instruction) ● LEE Chi Kin John (Dept of Curriculum & Instruction) ● CHUN Ka Wai Cecilia (Dept of Curriculum & Instruction) ● WONG Hin Wah (Dept of Curriculum & Instruction) ● YIP Din Yan (Dept of Curriculum & Instruction)

2001-02 The First Year: Personal Needs Assessment for Newly Appointed Principals (ED01688)

    ✍ WALKER Allan David

2002-03 A Research Based Training and Development Programme on 'Needs

Analysis for Aspiring Principals' (ED02619)

✍ WALKER Allan David ● CHAN Anissa* ● CHAN Kin Hung* ● CHAN Wing Kwong* ● CHEUNG Man Biu Robin* ● WONG Yeuk Han Cecilia*

2002-03 Strengthening School Leadership: Identifying the Development Needs of Serving Principals in Hong Kong (ED02990)

✍ WALKER Allan David ● QUONG Terrence*

2000-01 Education and Work: The Efficacy of Schooling on Human Resource Development in Three Regions in China (CU00379)

✍ XIAO Jin ● CHUNG Yue Ping Stephen ● LEE Chi Kin John (Dept of Curriculum & Instruction) ● LO Nai Kwai Leslie ● WONG Hin Wah (Dept of Curriculum & Instruction)

RESEARCH PROJECTS

Family Environment and Talent Development Among Chinese Gifted Students in Hong Kong

- ✍ CHAN Wai Ock David
- ❑ 1 March 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The important role of families in the development of talents and potentials of gifted children has long been recognized in studies of parenting, education and training in North America. The accumulating body of evidence seems to suggest that family environmental variables, when combined in a variety of ways, may contribute to outcomes that are more or less supportive of academic achievement, creativity, talent development, and mental health. This proposed study aims to explore the relationships between family environmental variables and talent development of Chinese gifted students in Hong Kong.

Gifted students' perceptions of their family environments and their perceived talents in academic skills and creativity will be assessed. Letters will be sent to all local secondary schools inviting principals/teachers to nominate gifted and talented students in their respective schools. The researcher will then send out the scale to the students, who will be asked to return the scale to the researcher upon completion. Completion of the scale is voluntary and the students will remain anonymous. The findings will have important implications in informing educators and parents whether family environmental variables related to Chinese cultural values might enhance or impede the development of specific talents in their children.

(ED03495)

A Program for Children with Dyslexia in Chinese

- ✍ CHENG Pui Wan
- ❑ 21 January 2004
- ❖ The Pathways Foundation Ltd.

Accurate and fluent word identification skills depend upon children's appreciation of the internal structure of words. More specifically, they have to understand the phonologic-orthographic relationship between speech and script, linking shape, sound and meaning in word reading. Phonological awareness and orthographic knowledge about words are deemed to be crucial in the development of literacy. Enhancement of word recognition skills is the major component of this program for children with dyslexia in Chinese.

Basically, the program will be constructed to build up children's word identification skills in five key areas: phonological awareness, orthographic knowledge, vocabulary building, oral reading fluency, and specific word identification strategies (e.g., visual imagery, mnemonics, and analogies). Program materials will be developed to aid teachers' (trainers') explicit teaching of word knowledge, and to facilitate teachers' (trainers') modeling and scaffolding the use of knowledge and strategies to identify words. Oral practices of nursery rhymes and songs will be regarded as means to strengthen vocabulary building and oral reading fluency. Program materials will consist of teacher's (trainer's) instructional guidelines, lesson samples, activity ideas and materials, games, and worksheets, all designed to enhance children's knowledge about words and literacy skills.

(ED03880)

Effects of Group Processes on Correct Contributions during Classroom Group Problem Solving

- ✎ CHIU Ming Ming
- ❑ 1 November 2003
- ❖ CUHK Research Committee Funding (Direct Grants)

Most difficult problems require people to work together to solve them. What helps group members create new correct ideas? What hinders them? This study will analyze 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 fractions in CL groups for a week. I will optimize the structure of my group work sessions and the training of my participants based on past studies. 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 will be captured within a five-dimensional framework of a) evaluations of one another, b) knowledge content, 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 be used to document the relationships between process variables and outcomes, and among the process variables themselves.

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 will address all of these difficulties-multivariate, multi-level Probit/Logit with time series analysis. The results will help build a systematic understanding of CL processes. Then, people can engage in beneficial processes and consider methods to deal with harmful ones towards working together more productively.

(SS03743)

Creating Correct New Ideas during Group Problem Solving

- ✎ CHIU Ming Ming
- ❑ 1 April 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

When a group of people work together on a problem, creating new ideas that are correct is central to solving the problem. What helps group members create new correct ideas? What hinders them? This study will analyze how various group processes during cooperative learning (CL). Specifically, how do cognitive and social-emotional process variables affect a) creation of new, correct ideas and b) correct solutions?

About 100 students 3 secondary 1 classes in a medium banding school will work on a complex algebra word problem in one lesson. Videotapes of the CL groups will be transcribed and coded. Group process variables will be captured within a five-dimensional framework of a) evaluations of one another, b) knowledge content c) invitation to participate, d) correctness, and e) politeness level. Past studies have not examined the relative effects of these variables together. Statistical analyses and

case studies will be used to document the relationships between process variables and outcomes, and among the process variables themselves.

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 will address all of these difficulties - multivariate, multi-level Probit/Logit with time series analysis. The results will help build a systematic understanding of CL processes. Then, people can engage in beneficial processes and consider methods to deal with harmful ones towards working together more productively.

(ED03332)

Assessment of Critical Thinking with Open-ended Questions: Psychometric Properties and Scoring Criteria

- ✍ HAU Kit Tai ● HO T Irene*
- ❑ 15 November 2003
- ❖ CUHK Research Committee Funding (Direct Grants)

Critical thinking has been emphasized as an important generic learning skill around the world. The establishment of a valid and reliable instrument is very crucial for any research related to critical thinking. Previous popular instruments are usually in short scenario with multiple-choice response forms, which have been criticized to be of low validity. In response to these challenges, Professor Diane Halpern developed an open-ended instrument with 25 scenarios. However, the greatest problem with open-ended questions is the inherent low inter-rater reliability. The main purpose of this research is to examine the psychometric properties (including item

discrimination indexes, inter-rater reliabilities) of the Halpern Critical Thinking Assessment (HCTA) and revise its scoring rubrics with the ultimate intention of developing a set of reliable and easy to score assessment criteria. The open-ended HCTA takes about 1.5 hour to complete and is complicated to score. Thus, it is important to develop a set of reliable yet easy to use scoring rubrics. In brief, in this research, the instrument is translated (and-back-translated) into Chinese. It is then administered to university students who are randomly divided into the exploratory and validation samples. Using the first exploratory sample, the scoring rubrics of the instrument are examined, revised and reapplied to the subjects until a set of reliable scoring criteria are obtained. Then, the scoring rubrics are applied to the independent validation sample to reconfirm the reliability of the instrument.

(ED03696)

Standard-setting Study on Percentage of Students Reaching the Minimum English Competence to Learn Through the English Medium of Instruction

- ✍ HAU Kit Tai ● CHANG Lei ● WEN Zhonglin (Dept of Psychology)
- ❑ 16 February 2004
- ❖ Education & Manpower Bureau, HKSAR Government

There are different methods to determine the percentage of students who are suitable for EMI instruction. The present research uses a standard setting approach to find the minimum standard and hence the percentage of S1 students in Hong Kong who can learn:

(1) in English in most subjects (Math, Science, Geography, History, EPA), similar to those in the current EMI schools;

(2) in English in Mathematics and Science;

(3) in English in Social and Cultural subjects (e.g. Geography, History, EPA);

Specifically, in several rounds of in-depth discussion using the Angoff's method, parents and experienced teachers are asked to judge the minimum English competence required for S1 students in each of the above modes of instruction.

In a subsidiary Contrast-Group standard setting study, teachers are asked to identify among their S1 students those who have the language competence at a level marginally above and below that required to learn in English for most subjects [mode (1) above]. Through the examination of these students' performance in the HKAT, we are able to estimate the percentage of Hong Kong students who meet the minimum language standard to study in EMI schools. This serves to provide convergent information for the results from the earlier study using the Angoff's approach.

(ED03407)

Facilitating the Development of Fraction Concepts in Third-grade Classroom: Measurement Approach

- ✎ NI Yujing ● SAXE Geoffrey B*
- ❑ 1 April 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The conventional: "double-counts" treatment of fractions in classroom fails to help children differentiate fraction and rational numbers from whole numbers. The method reinforces the tendency in children to overgenearlize the single-unit counting scheme in assimilating instructional data on fractions and confines their concept of fraction to that of "A thing out of B thing." The deficiency in children's concept of fractions has negative implications for what they subsequently can do and learn about advanced concepts and operations involving fraction and rational numbers. Understanding ratio measures is considered to veer into more general considerations of children's understanding of fraction numbers and multiplicative structure but systematic implementation of the approach in classroom is rare. This proposed study is to implement the measurement approach in a third-grade classroom. The approach emphasizes the concept of measurement units and quantitative relationships between different measuring units that are expressed in fractions or divisions. The treatment of 18 class sessions will be designed in such a way that permits children to explore these three principal aspects of fractional and rational number understanding: 1) the inverse relation between the number of divided parts and the size of the part, 2) order and equivalence of common fractions, 3) transformation between whole numbers and common fractions. Within-group pre- and post-instruction performance as well as between-group (experimental vs. control group) post-instruction performance will be compared on the principal content understandings. A study of this type is particularly valuable which will be able to address the question of how children acquire more advanced concepts and how the change may be influenced by instruction.

(ED03755)

Perceptual and Motor Learning: An Exploratory Study

- ✎ SHIU Ling Po

❑   1 November 2003

❖   CUHK Research Committee Funding (Direct Grants)

Perception and perceptual feedback are very important for motor control, performance and learning. But could motor learning enhance perceptual learning? Liberman's motor theory of speech perception posits that perception of speech is mediated by a motor program of speech production (Liberman et al., 1967). In reading acquisition, it is a common and recommended practice for children to write the letters they are learning to read (e.g. Adams, 1990). Chinese children are used to learning the characters by writing them over many times. In this study, the foci of investigation will be (1) whether or not copying a stimulus (e.g. Chinese characters and geometric patterns) by hand many times over can enhance visual discrimination of the stimulus; and (2) the factors that may modify the effects (e.g. copying in different manners).
(ED03518)

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

Edition   Title/Investigators

2002-03   Emotional Intelligence, Social Coping and Psychological Distress among Gifted Students in Hong Kong (ED02700)
             ✍   CHAN Wai Ock David

1999-00   Social-emotional and Parental Indicators of Withdrawn and Aggressive Behaviors in Primary School Children (ED99029)
             ✍   CHANG Lei ● DODGE Kenneth* ● SCHWATZ David*

2000-01   Indication and Prevention of Aggressive and Withdrawn Behaviours in Primary School Children (SS20005)
             ✍   CHANG Lei ● MCBRIDE Catherine Alexandra (Dept of 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

2000-01   An Electronic Version of the Wallach-Kogan Creativity Tests (ED20003)
             ✍   CHEUNG Ping Chung

2002-03   Classroom Studies of Group Processes: How Do the Problem Solving Processes of Successful and Unsuccessful Groups Differ? (ED02992)
             ✍   CHIU Ming Ming

2002-03   Classroom Studies of Group Processes: How Do the Problem Solving Processes of Successful and Unsuccessful Groups Differ? (SS02766)
             ✍   CHIU Ming Ming

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

2001-02   Subjective Meaning of Depression,   ✍ LAM Ka Nei

Anxiety, Anger among Children and

Their Help-seeking Behavior (SS01373)

2001-02   Subjective Meaning of Depression,   ✍ LAM Ka Nei

RESEARCH PROJECTS

Effects of an In-service Teacher Development Program on the Quality of School Physical Education

- ✍ HA Sau Ching Amy ● JOHNS David Paul ● CHAN Wan Ka Daniel ● SUM Kim Wai Raymond
- ❑ 15 September 2003
- ❖ District Teacher Network, Education and Manpower Bureau, HKSAR Government

Eighty (40 primary and 40 secondary) in-service physical educators and their 6400 students (two classes of students from each school) will participate in the project. By introducing the "Physical Education - KLA Curriculum Guide (S1-S3)" initiated by the Curriculum Development Council, participants in the experimental group will be assisted to cope with the educational reform and make appropriate changes. Lifetime fitness, knowledge of healthy lifestyle, positive attitude towards physical education and other generic skills for student learning will be emphasized throughout the in-service development program. Meantime, teacher's receptivity to curriculum change and knowledge about the new curriculum guide will thoroughly discussed and considered.
(ED03563)

PE Teachers Development Programme - Workshops for PE Curriculum Leaders in Primary & Secondary School (2003-2004)

- ✍ HA Sau Ching Amy ● CHAN Wan Ka Daniel ● SUM Kim Wai Raymond
- ❑ 1 December 2003
- ❖ Education & Manpower Bureau, HKSAR Government

The purpose of this study is to evaluate the effectiveness of an in-service training program and understand teachers' self-perception towards their professional identity. All Hong Kong primary and secondary school teachers will be recruited as participants to attend a 2-day professional workshop organized by the Education and Manpower Bureau and the Department of Sports Science and Physical Education, The Chinese University of Hong Kong. A share-practice approach will be highly emphasized. About 30 in-service primary and secondary school physical educators will be invited to share their successful teaching experiences with their peer colleagues and the organizers.
(ED03783)

Biomechanics Analysis in Lumbar Spinal Load and Muscular Strength in Primary Children When Walking with Loaded Backpack

- ✍ HONG Youlian ● CHENG Chun Yiu Jack (Dept of Orthopaedics & Traumatology) ● LI Jingxian# ● LIM Young Tae*
- ❑ 1 December 2003
- ❖ CUHK Research Committee Funding (Direct Grants)

The issue of school students carrying heavy schoolbags is a matter of great concern to the community of Hong Kong and other countries. However, information with regard to the lumbar spinal and trunk muscular load by carrying heavy schoolbags in children has not yet been reported. In this study, four groups of 15 male primary school children aged 6,8,10 and 12 years, will be randomly

selected to serve as subjects. The lumbar spinal load at L4/L5 and trunk muscle forces of each group of subjects during the one leg stance phase will be determined while walking with four different load conditions (without schoolbags and with backpack schoolbags which are 10%, 15% and 20% of their body weights) using an electromyography (EMG)-assisted optimization model (McGill & Norman, 1986; McGill, 1992). The input of the model includes the three-dimensional ground reaction forces of the support leg, three-dimensional kinematics of body joint markers, the EMG signals of selected muscles, as well as the anatomical parameters of the selected muscles of the subjects during walking. The data will then be statistically analyzed using the Analysis of Variance (ANOVA) with repeated measures design. It is expected that the results of this study will quantify the lumbar spinal load and trunk muscular strength induced by the load carried and will provide a clear picture of the association between the lumbar spinal load, trunk muscular strength, the backpack load carried and the age of the subjects. The information generated from this study will provide significant contribution to the existing knowledge of paediatric exercise and orthopaedic science. Moreover, this information will also be useful for health and educational professionals in the issuing of guidelines for the appropriate weight of schoolbags carried by primary school children.

(MD03312)

The Influence of 15-week Intervention of Different Exercise Forms on Posture Stability in the Elderly People

✍ HONG Youlian ● LI Jingxian#

❑ 1 March 2004

Proprioception is often used to describe many of the physiological processes within the sensorimotor system and it is declined with aging. Deficient proprioception is found to relate to functional instability and falls in the elderly. The purpose of this study is to investigate the effectiveness of TC practice on the proprioceptive and neuromuscular responses. Seventy-five healthy subjects age 65±5 will be recruited to form TC, jogging and sedentary control group, each containing 25 individuals. The subjects in the TC group will practice TC for 15 weeks, with three 50-minute sessions per week. Each training session will include 10 minutes warm up, 30 minutes TC practice and 10 minutes cool down. The subjects in the jogging group will practice with the same frequency and duration as TC group. After 15-week TC and jogging training respectively, the subjects will be asked to practice TC/jogging three times per week for at least 20 min sessions with a self selected practice venue and meet the researcher of the study weekly to report their practice activity. The subjects of the sedentary control group will be instructed not to change their physical activity level throughout the period of the study and hence will serve as a control for exercise applications. The measurement will be conducted before and after 15-week intervention and at a 3-month follow up for all subjects. The measured items include joint position sense and kinesthesia of ankle and knee joints, and the sway of center of pressure and the reaction time of spine and lower extremity muscles to balance perturbations during one-legged stance on the force plate with eyes open and closed. The ANOVA will be used to compare the changes in the measures between TC, jogging and

the control groups at the baseline measurement, post 15-week training, and post 3-month follow up. (ED03436)

Survey on Students Physical Fitness and Their Attitude towards Physical Education 2003-2004

✎ HUI Sai Chuen ● SUM Kim Wai Raymond

❑ 1 January 2004

❖ Education & Manpower Bureau, HKSAR Government

In Hong Kong, the Education & Manpower Bureau believes 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 has been revised recently to reflect the current trends of fitness and activity promotion. 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 impact by the P.E. curriculum reform. Such evaluation for secondary school students were launched last year. Recent evaluation for primary school students has not been commenced. The purpose of this study is to conduct a health-related physical fitness and activity evaluation for local primary schools so that current profiles and changes in fitness and activity of Hong Kong primary 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 P.E., as well as their values and attitudes towards P.E. Approximately 8500 primary school students will be recruited. Normative data will be generated and compared with previous assessment.
(ED03419)

Effect of Consumption of Scientifically Formulated Sports Drink on Running Performance after Pre-exercise Glycemic Index Meal

✎ WONG Heung Sang Stephen

❑ 1 March 2004

❖ CUHK Research Committee Funding (Direct Grants)

The purpose of this study is to investigate effect of consumption of carbohydrate-electrolyte solution on running performance after pre-exercise glycemic index meal. Twelve enduranced-trained male runners will be recruited in this study which will be approved by the university clinical research ethical committee. Preliminary trials will be carried out to determine the subject's VO_2max and lactate threshold. Subjects will be advised to refrain from strenuous exercise, caffeine and alcohol 24 hours before each trial. Two hours before the main trial, subjects will consume either a LGI or a HGI meal with similar amount of macronutrients and portion size. Each subject will then be required to complete a 21 km treadmill run for as fast as possible during which they will ingest a carbohydrate-electrolyte solution. Venous blood will be collected at regular intervals for biochemical analysis. Expired air will also be collected regularly for gas measurement.
(MD03743)

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

Edition   Title/Investigators

2001-02   An Olympic Education Program for Hong Kong, Canada and Beijing School Children (ED01995)
- ✍ HA Sau Ching Amy ● BINDER Deanna L* ● REN Hai*

2002-03   Analysis of Muscle Recruitment of Wushu Athletes - A Study on Tai Chi Chuan (MD02720)
- ✍ HONG Youlian

2002-03   Biomechanics Study on Gait, Posture and Neuromuscular Activity during Stair Ascending and Descending in Children with Different Loaded Backpack (ED02721)
- ✍ HONG Youlian ● LI Jingxian#

2002-03   Biomechanics Study on Prevention of Occupational Slip and Falls in Hong Kong (ED02753)
- ✍ HONG Youlian ● LI Jingxian#

2002-03   Designing Athletic and Causal Footwear Based on Functional Testing and Computer Simulation (EE02586)
- ✍ HONG Youlian ● HUI Kin Chuen (Dept of Auto. & Computer-Aided Engin.) ● LI Jingxian# ● DU Ruxu (Dept of Auto. & Computer-Aided Engin.)

2000-01   Effects of Enriched Physical Education Programs on Physical Fitness in School Children (CU00381)
- ✍ JOHNS David Paul ● HA Sau Ching Amy ● WONG Heung Sang Stephen

2002-03   The Development of Mass Exercises in Schools (ED02916)
- ✍ WONG Heung Sang Stephen

2002-03   Effect of Glycemic Index Meals on Running (MD02747)
- ✍ WONG Heung Sang Stephen

RESEARCH PROJECTS

Investigating the Mechanism for the Development of Graduate Capabilities

- ✍ KEMBER David Richard ● LEUNG Yin Ping
- ❑ 1 January 2004
- ❖ CUHK Research Committee Funding (Direct Grants)

The project aims to investigate the mechanism by which universities can develop in graduates the capabilities needed for a knowledge-based economy. Previous graduate surveys challenged the conventional position in the literature that the capabilities develop through exposure to a stimulating campus environment. The surveys found that students in part-time courses, who spent little time on campus beyond attending evening classes, perceived significantly greater levels of development in a range of capabilities than students in full-time programmes in the same university. This suggests that variables in the teaching and learning environment play a greater part in capability development.

The proposed project aims to investigate these findings. A survey instrument will be developed based on structural equation modeling analysis of existing data which measures perceptions of capability development. The remainder of the instrument will measure variables in the teaching and learning environment found to impact upon capability development. A survey of a random sample of undergraduate second year students will be used to gather data. Structural equation modelling will be used to analyse the resulting data to produce a model of the types of teaching and learning experiences which need to be deployed to produce graduates equipped for a knowledge-based society. (ED03626)

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

Edition   Title/Investigators

2002-03   Obtaining Accurate Descriptions of Websites and Investigating the Ways in which the Design Features of Educational Websites Impact on Students' Approaches to Learning (ED02995)
- ✍ MCNAUGHT Carmel Marie ● KEMBER David Richard ● MA Suet Fan# ● LEUNG Yin Ping

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