

RESEARCH PROJECTS

An Instrument for Measuring Teacher Concerns about School-based Curriculum Development

✍ CHEUNG Sin Pui

□ 1 March 2003

❖ CUHK Research Committee Funding (Direct Grants)

The Hong Kong government has poured millions of dollars into the curriculum reform with intent to prepare students for the challenges of globalization and a knowledge-based society. Implementing school-based curriculum development (SBCD) is one of the foci of the current reform. However, most teachers experience a number of problems when they implement SBCD, such as lack of time, expertise and finance, externally imposed restriction, and a threatening school climate. Because the Curriculum Development Council has been planning to promote SBCD, knowledge of primary and secondary school teachers' concerns is critical. Unfortunately, the concerns of Hong Kong teachers about implementing SBCD have not been systematically investigated. This project aims at designing a questionnaire to measure teacher concerns about implementing SBCD. Cheung's (2002) 6-stage model of teacher concerns about educational innovations will be used as a conceptual framework for designing the questionnaire items.

(ED02836)

從閱讀到教學 -- 教師及教學專家交流閱讀、寫作與課程設計經驗工作坊及出版計劃

Workshop on Teacher, Writer and Educator: Reading, Writing & Curriculum Design Experience Exchange

✍ 崔晶盈 CHUI Ching Ying

□ 22 November 2001

❖ Hong Kong Arts Development Council

計劃分為兩大部分：教師文學培訓課程及《香港文學的閱讀與教學》一書的出版。教師文學培訓課程細分兩個部分，第一部分為「認識當代香港文學庭談會」，簡介當代香港文學的發展概況及重要的作家作品；第二部分為「香港文學的閱讀與教學工作坊」，透過作家發教學專家出席工作坊，與參與的教師交流閱讀、寫作和教學設計的經驗，希望提高教師欣賞及設計香港文學教材的能力。

《香港文學的閱讀與教學》一書內容主要分為「認識當代香港文學」，以及「散文工作坊」、「新詩工作坊」、「小說工作坊」四個部分。

「認識當代香港文學」包括概論文章一篇及陳智德、許迪鏘、關夢南、顏純鈞四位的主講內容，有縱向概述文學發展、文壇概況，也有橫向論介重要作家及作品。

「散文」、「新詩」及「小說」三個工作坊，分別由作家陶傑、胡燕青、黃國彬、王良和、董啟章、陳寶珍等自述創作經驗、作品特色等，並由高慕蓮、周漢光、楊熾均、崔晶盈及何惠靈就不同文體的特色、教學重點、教學設計等方面引導參與教師作深入的討論。

(AL01842)

「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

✉ 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

□ 1 January 2003

❖ Hong Kong Arts Development Council

此計劃旨在配合中國語文教育領域的課程改革以及教與學的理論，就加強文學元素、單元教材編選設計、資訊科技輔助教學等方面，研究開發香港文學教學軟件。計劃同時希望透過系統的編選，從點到面，整體而概括地呈現香港文學的發展面貌，以期在校園內提倡及推廣香港文學教育。軟件設計將會著重發揮個別化學習的功能，照顧學習者的差異，務求達致高效能的教與學。

(ED02384)

Promotion of Putonghua

✉ HO Wai Kit • WU Weiping (New Asia Yale-in-China Chinese Language Centre) • LAM Kin Ping Majors

□ 1 August 2002

❖ Language Fund, HKSAR Government

The Standing Committee on Language Education and Research (SCOLER) and the Hong Kong Association of Promoting Putonghua organize the “Putonghua month 2002” from 15th September to 13th October. The CUHK is invited by the SCOLER to provide the following activities in “Putonghua month”

- (1) Putonghua One Minute
- (2) Interview with celebrities on Putonghua
- (3) Putonghua Proficiency Test for Fun
- (4) Putonghua Student Ambassadors Training Scheme

The main purpose of above activities are to across public awareness of the importance of Putonghua, to kindle their interest in Putonghua and to provide more opportunities for learning, practicing and speaking Putonghua.

(AL02653)

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

✉ LEE Chi Kin John • CHEUNG Yuet Sai Louisa

□ 1 July 2002

❖ Apleichau St. Peter's Catholic Primary School (A.M.) • Apleichau St. Peter's Catholic Primary School (P.M.) • CCC Heep Woh Primary School (A.M.) • CCC Kei Wai Primary School (P.M.) • Chai Wan Faith Love Lutheran School (A.M.) • Chan Sui Ki Primary School • Chinese Methodist School N.P. (A.M.) • Chinese Methodist School N.P. (P.M.) • Choi Wan St. Joseph's Primary School (A.M.) • Emmanuel Primary School Kowloon • FSFTF Fong Shu Chuen Primary School • H.K.T.A. Shek Wai Kok Primary School (AM & PM) • HKMLC Wong Chan Sook Ying Memorial School • HKWCA Wong Ming Him Memorial School • Hoi Bun School • Hong Kong Taoist Association Ng Lai Wo Memorial School • Hop Yat Church School • Kowloon Rhenish School • Lions Clubs International Ho Tak Sum Primary School • Lo Wu Public School • Lok Wah Catholic Primary School • Poo Ai Primary School (A.M.) • S.K.H. Yan Laap Primary School • Sacred Heart Canossian School • Sai Kung Tung Tsun Catholic Secondary School • Shatin Government Primary A.M. School • Sheng Kung Hui Tang Shiu Kin Secondary School • Shung Tak Catholic Primary School •

Society of Boys' Centres, Hui Chung Sing Memorial School • St. Charles School • St. Francis' Canossian College • St. Paul's Co-educational College • Tai Po Old Market Public School • Tai Po Old Market Public School (Plover Cove) • Taikoo Primary School • The Hong Kong Taoist Association Chan Lui Chung Tak Memorial School • The New Method College • Tung Koon School • Wah Shan Public School

In the school year 2002-03, there are 34 primary schools and 6 secondary schools which has 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.

(ED02935)

Evaluation of the Schools' Professional Collaboration Project

- ✉ LEE Chi Kin John • TAM Wai Ming Frank (Dept of Educational Administration & Policy) • KO Mo Lin Regina
- ☐ 1 October 2002
- ❖ Education & Manpower Bureau, HKSAR Government

The Schools' Professional Collaboration Project (SPCP) is a large-scale two-year project launched by the Education Department in 2001/02 and 2002/03 school years. The main objectives of the Project are to help schools enhance their capacity for making improvement especially in the area of teaching and learning, forge partnership among schools for the betterment of school education and provide additional support to the motivated and capable schools to inculcate in schools a sharing culture.

The main aim of this study is to provide consultancy for the Education Department of HKSAR on the Evaluation of the SPCP. The main objectives of the evaluation research are to:

- (1) identify perceived effective strategies in the dissemination of experience sharing activities; and
- (2) provide recommendations on measures to tackle the problems and on mode(s) of professional collaboration among schools and teachers in forging partnership among schools for the betterment of school education.

The study involves documentary analysis, questionnaire survey, mini case studies and focus group interviews.

(ED02678)

Consultancy Study on the Status and Development of Hong Kong Education City Limited

- ✉ LEE Chi Kin John • WU Kam Wah
- ☐ 1 January 2003
- ❖ Hong Kong Education City Limited

The aims of the consultancy study are:

- (1) To collect and assess various stakeholders' views related to the usefulness and effectiveness of the HK Education City web-site as an IT (information technology) for education platform;

and

- (2) To provide indicative pointers and suggestions for the further development of the HK Education City based on literature review and analyses of results obtained above.

Literature review, surveys for teachers, students and parents as well as focus group interviews will be conducted.

(ED02515)

Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 3 - Support for Students and School Ethos)

✍ LEE Chi Kin John • CHENG Kin Yee Daniel • MA Hing Tong • FUNG Yee Wang (Faculty Office of Education) • LAU Siu Ying Patrick (Dept of Educational Psychology) • WALKER Allan David (Dept of Educational Administration & Policy) • WU Kam Wah

□ 1 April 2003

❖ Education & Manpower Bureau, HKSAR Government

The objective of the studies is to collect and disseminate examples of good practices identified in all the award-winning schools in the Outstanding School Awards (OSA) Scheme.

The consulting team will conduct the following activities to understand good practices of award-winning schools:

- (1) interviews with all the key person in award-winning schools in the domain in which the awards are won. The interviewees would include school head (individual interview), teachers (group and/or individual interviews), students and parents (group interviews).
- (2) analysis of documents submitted to the QEF

during nomination period of the OSA scheme.

- (3) visit to all the award-winning schools and analysis of school documents which were not submitted to QEF as specified in (2); and
- (4) interviews with selected OSA adjudicators.

The deliverables of the study will include the submission of full reports, production of dissemination packages (in the form of interactive multi-media materials), conduct of a series of dissemination activities and production of an evaluation report.

(ED02677)

Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 1 - Management & Organization)

✍ LEE Chi Kin John • CHEUNG Yuet Sai Louisa • KO Mo Lin Regina • TAM Wai Ming Frank (Dept of Educational Administration & Policy) • WALKER Allan David (Dept of Educational Administration & Policy) • WU Kam Wah

□ 1 April 2003

❖ Education & Manpower Bureau, HKSAR Government

The objective of the studies is to collect and disseminate example of good practices identified in all the award-winning schools in the Outstanding School Awards (OSA) Scheme.

The consulting team will conduct the following activities to understand good practices of award-winning schools:

- (1) interviews with all the key persons in award-winning schools in the domain in which the awards are won. The interviewees would include school head (individual interview), teachers (group and/or individual interviews),

students and parents (group interviews).

- (2) analysis of documents submitted to the QEF during nomination period of the OSA scheme.
- (3) visit to all the award-winning schools and analysis of school documents which were not submitted to QEF as specified in (2); and
- (4) interviews with selected OSA adjudicators.

The deliverables of the study will include the submission of full reports, production of dissemination packages (in the form of interactive multi-media materials), conduct of a series of dissemination activities and production of an evaluation report.

(ED02699)

Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 2 - Teaching and Learning)

✍ LEE Chi Kin John • CHEUNG Yuet Sai Louisa
 • FUNG Yee Wang (Faculty Office of Education)
 • LO Nai Kwai Leslie (Dept of Educational Administration & Policy) • MA Hing Tong • WU Kam Wah

□ 1 April 2003

❖ Education & Manpower Bureau, HKSAR Government

The objective of the studies is to collect and disseminate example of good practices identified in all the award-winning schools in the Outstanding School Awards (OSA) Scheme.

The consulting team will conduct the following activities to understand good practices of award-winning schools:

- (5) interviews with all the key persons in award-winning schools in the domain in which the awards are won. The interviewees would

include school head (individual interview), teachers (group and/or individual interviews), students and parents (group interviews).

- (6) analysis of documents submitted to the QEF during nomination period of the OSA scheme.
- (7) visit to all the award-winning schools and analysis of school documents which were not submitted to QEF as specified in (2); and
- (8) interviews with selected OSA adjudicators.

The deliverables of the study will include the submission of full reports, production of dissemination packages (in the form of interactive multi-media materials), conduct of a series of dissemination activities and production of an evaluation report.

(ED02766)

Highlight Study of Good Practices of Award Winning Schools in Outstanding School Awards (OSA) Scheme (Domain 4 - Students' Attainment)

✍ LEE Chi Kin John • CHENG Kin Yee Daniel • KO Mo Lin Regina • LAU Siu Ying Patrick (Dept of Educational Psychology) • LO Nai Kwai Leslie (Dept of Educational Administration & Policy) • TAM Wai Ming Frank (Dept of Educational Administration & Policy) • WU Kam Wah

□ 1 April 2003

❖ Education & Manpower Bureau, HKSAR Government

The objective of the studies is to collect and disseminate example of good practices identified in all the award-winning schools in the Outstanding School Awards (OSA) Scheme.

The consulting team will conduct the following activities to understand good practices of award-winning schools:

- (9) interviews with all the key persons in award-winning schools in the domain in which the awards are won. The interviewees would include school head (individual interview), teachers (group and/or individual interviews), students and parents (group interviews).
- (10) analysis of documents submitted to the QEF during nomination period of the OSA scheme.
- (11) visit to all the award-winning schools and analysis of school documents which were not submitted to QEF as specified in (2); and
- (12) interviews with selected OSA adjudicators.

The deliverables of the study will include the submission of full reports, production of dissemination packages (in the form of interactive multi-media materials), conduct of a series of dissemination activities and production of an evaluation report.

(ED02769)

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

✍ 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)

☐ 1 December 2002

❖ Research Grants Council (Earmarked Grants)

WEB-based teaching is one of the new directions for education. The approach aims at using the WEB, being a networked, anytime, interactive, high-capacity and content-rich environment, to enhance and facilitate independent learning and teacher-student communication.

This goal has only been partially fulfilled since existing WEB-based teaching systems use the WEB more as a publishing medium, without utilizing the available immense computing power. In this project, we propose the Virtual Interactive Student-Oriented Learning Environment (VISOLE) approach to WEB-based teaching and learning. The aim of the VISOLE project is to study how the full functionality of the WEB can be exploited to help students learn from (near) real-life experiences and from social construction of knowledge. Students will learn directly from the immersion experience. Teachers, closely monitoring the progress of the development of the virtual world, can extract useful scenarios for classroom discussions.

Briefly speaking, VISOLE encompasses the creation of a virtual interactive world modeled upon a set of selected and related subject areas on the WEB, and allows students to participate as "citizens" who take part in shaping the development of this virtual world. By involving in the VISOLE environment, students learn to analyse problem situations, devise problem solving strategies, solve problems and evaluate consequences. All these are considered high-order abilities required in this new era.

We propose to construct a virtual environment based on the subjects of geography and urban planning using the VISOLE approach. The environment will be tested among schools in Hong Kong and possibly other regions. Results of the evaluation can be used to direct WEB-based research activities in the future.

(CU02200)

A Study of Vocabulary Size of Hong Kong Students and the Nature of English Vocabulary Input from Textbooks

✍ TANG Lai Yiu Eunice

□ 1 December 2002

❖ CUHK Research Committee Funding (Direct Grants)

The project is a study of the vocabulary size of the primary and junior secondary school students and the nature of English vocabulary input available in the English textbooks for acquisition.

Research objectives:

- (1) To measure the vocabulary size of the Hong Kong primary and junior secondary school students
- (2) To build up a corpus of English words available in textbooks for acquisition
- (3) To investigate the nature of vocabulary input from the English textbooks, in terms of frequency and type

This project aims to be an initial study for a research on the study of the English lexical environment in the Hong Kong classroom which plans to give a coherent picture of vocabulary size of the Hong Kong students at different levels of schooling and the English vocabulary input from print and speech.

(ED02866)

Evaluation Study on Implementing the New Secondary Chinese Language Curriculum at School Level in the School Years of 2002/03 and 2003/04

✉ WONG Hin Wah • HO Wai Kit • TONG Choi Wai • CHUI Ching Ying • NG Mau Yuen Eric • HO Ying Ping* • LAM On* • YEUNG Kwai Hong*

□ 1 March 2003

❖ Education & Manpower Bureau, HKSAR Government

研究問題：

(1) 首兩年實施中學中文科新修訂課程期間,不同背景的教師在下列各方面的轉變：

- (i) 在知識、技能、態度、工作習慣及文化上的角色和專業發展情況如何？
- (ii) 下列認知、知識、態度、信念、價值的改變：中國語文科/中國語文科課程/中國語文科的學與教/學生評估。
- (iii) 功影響學生學習的教學策略包括哪些要素？
- (iv) 何運用教科書等學習材料？

(2) 首兩年實施中學中國語文科新修訂課程期間,不同能力的學生在下列各方面的轉變：學習環境/動機/模式,和其他學習成果。

(3) 科主任或校內課程統籌人員、校長等,首兩年在課程領導角色發展、課程發展、促進教學協作、學與教、評估及課程評鑑等方面有甚麼具體工作？

(4) 首兩年期間,教師在適應及促進校本課程發展、教學協作、共同備課、觀課及分亨等方面有哪些實際需要？

(5) 有效促使校內中文科學與教改變的原因是甚麼？

(6) 就上述研究所得結果,在下列各方面的建議：教學專業發展及教師培訓；資源分配；在學校層面推廣新意念的策略；在制度層面的課程設計、發展及實施。

(ED02398)

Conditions of Professional Practices in Hong Kong Secondary Schools: Does Subject Pedagogy Matter at all?

✉ YEUNG Sau Chu Alison • LAM Chi Chung • MAN Yee Fun Evelyn

□ 1 April 2003

❖ CUHK Research Committee Funding (Direct Grants)

This proposed project is shaped by a broad question:

What are the conditions of professional practices in Hong Kong secondary schools and how do these conditions affect teaching and learning? We plan to answer the specific research question of how subject teachers build on the strength of their subject pedagogy and how they find their subject pedagogy relevant to teaching assignment outside their specialization. In other words, we want to know whether and how teachers display different teaching styles in their own specialized subject and non-specialized subject. This close relationship between teaching assignment and subject pedagogy is crucial to the conditions of teaching effectiveness and quality in Hong Kong secondary schools. As teacher educators, we want to address problems of real classroom situations in Hong Kong and we believe a qualitative research methodology will allow us to engage in deeper reflection and thorough discussion. We therefore plan to observe, video-tape lessons by twenty teachers specializing either in languages and humanities, and then interview them on the relationship between teaching styles and “pedagogical content knowledge” they develop in different subjects. This exploratory study is our first step toward a more comprehensive research project on teaching effectiveness in Hong Kong secondary schools.

(ED02988)

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

Edition Title/Investigators

2000-01 A Test Construction Support System for Chemistry Teachers (ED20009)

✍ CHEUNG Sin Pui • LEE Fong Lok
• WONG Kwong Wai Raymond*

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

2001-02 Building and Evaluating an Item Bank of English Language Listening Test Items (ED01852)

✍ CONIAM David

1998-99 Young Writer Website (ED98034)

✍ HO Man Koon

2000-01 “Hong Kong Young Writer” Teaching Aid (ED20005)

✍ HO Man Koon • AU Pui Kuen*

2000-01 A Pilot Scheme on Using Putonghua as a Medium of Instruction in Chinese Language Teaching (AL20003)

✍ HO Wai Kit • LAM Kin Ping Majors • CHEUNG Lai Yin (Faculty Office of Education) • YANG Huimin (Faculty Office of Education)#

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

✍ LEE Chi Kin John • WONG Hin Wah

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|---------|---|---------|---|
| 1999-00 | The Role of Schooling on Human Resource Development in Three Regions in China (ED99014) | 2001-02 | Professional Enhancement Programme on Environmental Education for Primary School Teachers (ED01686) |
| | <ul style="list-style-type: none"> ✍ LEE Chi Kin John • WONG Hin Wah • XIAO Jin (Dept of Educational Administration & Policy) • LO Nai Kwai Leslie (Dept of Educational Administration & Policy) • CHUNG Yue Ping Stephen (Dept of Educational Administration & Policy) • LAI Man Hong (Dept of Educational Administration & Policy) • CHAN Wing Shing* | | <ul style="list-style-type: none"> ✍ LEE Chi Kin John • WU Kam Wah • LAM Kin Che (Dept of Geography & Resource Management) • SIU Lai Ping Teresa • YIP Din Yan • FUNG Yee Wang (Faculty Office of Education) • MAK CHAN Shuk Yin • CHUI Ching Ying • LAI Man Hong (Dept of Educational Administration & Policy) • LAM Wing Po (Faculty Office of Education) • MA Hing Tong • TANG Yiu Nam# • CHEUNG Tsui Man (Faculty Office of Education)# • TANG Mei Sin* • LAI Tak Fai Larry* • CHAN YEUNG Moira M W* • Daniella TILBURY* • WONG Hin Wah |
| 2000-01 | Quality Early-childhood Education for All (QEEA) (ED99063) | | |
| | <ul style="list-style-type: none"> ✍ LEE Chi Kin John • MA Hing Tong • KO Mo Lin Regina • CHEUNG Yuet Sai Louisa • TSUI Hei Lai (Faculty Office of Education)# • CHEUNG Tsui Man (Faculty Office of Education)# | | |
| 2000-01 | University of School Partnership for Quality Education (USPQE) (ED20008) | 1998-99 | A Knowledge-based Multimedia Learning System for Primary School Students (CU98196) |
| | <ul style="list-style-type: none"> ✍ LEE Chi Kin John • CHUNG Yue Ping Stephen (Dept of Educational Administration & Policy) • LO Nai Kwai Leslie (Dept of Educational Administration & Policy) • WONG Hin Wah | | <ul style="list-style-type: none"> ✍ LEE Fong Lok |
| 2001-02 | Life-wide Learning Project (ED01358) | 2000-01 | An Investigation into the Attitudes of Pre-service and Serving Teachers of English Towards the English Language Proficiency Assessment and Their Language Needs in the Training Courses (ED00415) |
| | <ul style="list-style-type: none"> ✍ LEE Chi Kin John • WONG Hin Wah • TSUI Hei Lai (Faculty Office of Education)# • KO Mo Lin Regina • MA Hing Tong • CHEUNG Yuet Sai Louisa | | <ul style="list-style-type: none"> ✍ MAK CHAN Shuk Yin |
| | | 2001-02 | Development of Support Measures for Student Adaptation to English-Medium Schools (ED01576) |
| | | | <ul style="list-style-type: none"> ✍ 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	"Enhancement of Students' Mathematics Problem Solving Abilities by the Systematic Introduction of Variations" (ED01333)
2001-02	Ensuring Enhancement of English Language across the Curriculum through Professional Teacher Development (ED01455) ✍ MAN Yee Fun Evelyn		✍ WONG Ngai Ying • LAM Chi Chung • LEUNG Shuk Kwan Susan* • MARTON Ference* • WONG Ka Ming Patrick • LEUNG Shuk Kwan Susan*
1999-00	Development and Research Project on 'Motivation and Model of Learning among Primary School Pupils in the Subjects of Chinese Language, English Language and Mathematics' (ED99061) ✍ WONG Hin Wah • CHUI Ching Ying • YEUNG Chi Kwan • SZE Man Man Paul • MAN Yee Fun Evelyn • LEUNG Shuk Kwan Susan# • LEE Chi Kin John	2000-01	Courseware Building on the World Wide Web (WWW) (ED00440) ✍ WU Kam Wah
		2000-01	資訊科技教育陳列室(I)：代表與表達度維 (ED00938) ✍ WU Kam Wah
		2001-02	Making Personal and Critical Connections to History: A Reading Research Project in Hong Kong Secondary (ED01357) ✍ YEUNG Sau Chu Alison
2000-01	中學實施中國語文科「試行課程—共同發展學習材料」計劃校內改變研究 Research on Major Changes at the School Level in Parallel to the Launching of "Curriculum Tryout-Collaborative Learning Material Development" Scheme (ED00400) ✍ 黃顯華 WONG Hin Wah • 周漢光 CHOW Hon Kwong • 何偉傑 HO Wai Kit • YEUNG Kwai Hong*	1999-00	由部首檢字引論中國文字的結構及派生方法 The Structure of Radical in Chinese Word Families (AL99031) ✍ 余迺永 YU Nae Wing

RESEARCH PROJECTS

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

✍ CHENG Hon Man Roger

☐ 1 March 2003

❖ CUHK Research Committee Funding (Direct Grants)

Values education is a relatively new area of research and development in Hong Kong. But the significance of the fact that values permeate education in multiple ways has been ever more clearly shown in education reform and curriculum reform in Hong Kong since 1997. Thus, this generates a need of training for values educators. But why would educational practitioners aspire to become values educators? This project conducts a narrative inquiry into a sub-group of 6 to 12 aspiring values educators from within a class of fifty, in relation to the three most concerned values: autonomy, altruism and responsibility. It tries to understand their aspiration as well as their inspired forms of practice through the following four research questions:

(Q1): What values / attitudes / qualities they are most concerned with in their aspiration to becoming values educators?

(Q2): How have they been nurtured (by inspiring values educators) in the values / attitudes / qualities that they are most concerned with in telling their own stories of formation?

(Q3): How would they in practice nurture the values / attitudes / qualities that they are most concerned in

their values educators (target-clients) in conceiving themselves as values educators?

(Q4): How have they lived their lives in which the identity of values educators plays an important part (and by which the answers to the above three questions are unified)?

This narrative inquiry into the aspiring values educators is expected to show that the ways the aspiring values educators have their values / attitudes / qualities nurtured by some other values educators as their formative sources could and would inspire their educational practice of nurturing values / attitudes / qualities in their prospective values educands (for their “respiration”). It will throw light on further research on values education in Chinese societies (taking Hong Kong as the initial case).

(ED02455)

A Study of Demand for Higher Education with Reference to Educational Finance in Hong Kong and Mainland China

✍ CHUNG Yue Ping Stephen • LU Gen Shu*

☐ 1 September 2002

❖ Research Grants Council (Earmarked Grants)

With the emerging of the knowledge society, economic development depends more on human capital and less on land and machines (World Bank, 2000). Expansion in higher education has become the most important strategy for the accumulation of human capital at the higher end. From the year 1985 to 1995, gross enrollment rate to higher education grew from 37% to 58% in high-income countries and from 7% to 10% in medium to low-income countries. There is a strong economic motive for the state/government to invest directly and to facilitate private investment in higher education. From the individual perspective, higher education

participation is affected, however, by the ability to pay and the willingness to pay for education (Chung, Gong % Min, 2000). Investment in higher education could be motivated by the desire to acquire social capital as well as human capital, and in response to government policies in educational finance. A study on the demand for higher education will provide important information for the formulation of expansion policy for higher education. The results of the study will contribute to policy-making in higher education finance and to the discourse on social capital and human capital in the demand for higher education.

(CU02209)

Macao-PISA 2003 Project

✍ HO Sui Chu

□ 1 May 2003

❖ The Education & Youth Affairs Department of Macao

The Project will collect data on Macao, S.A.R., P.R. China students' levels of literacy in reading, mathematics, science and problem solving. It will contribute to our understanding of the quality of education in Macao from an international perspective. Moreover, it will provide direction for school reform and for student learning as well as insights into curriculum strengths and weaknesses. The study will also generate valid and reliable tools for policy-makers to monitor student achievement at different levels. This is especially important when administration is decentralized and schools are run in partnership with the community. By comparing the direction and pace of change in different countries, policy-makers will be able to put local development in a context of global change.

(ED02847)

Preparation for Principalship Course

✍ LAM Yee Lay Jack

□ 30 October 2002

❖ Education & Manpower Bureau, HKSAR Government

The objective of this service is to conduct a designated course now known as 'Preparation for Principalship Course', which is one of the three parts of the 'Certification for Principalship (CFP) process for aspiring principals, according to the design specified by the Education Department now known as Education and Manpower Bureau (EMB) of the Hong Kong Special Administration Region.

(ED02972)

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

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

□ 1 March 2003

❖ Education & Manpower Bureau, HKSAR Government

As recommended by the Education Commission in its Report on Reform Proposals for the Education System in Hong Kong published in 2000, a short-term SSPA mechanism has been introduced as from the 2000/01 school year. The major features of the short-term mechanism include abolition of the Academic Aptitude Test (AAT), using the average of each primary school's AAT results in the past three years to scale students' school internal assessment

results for the purpose of determining their allocation bands, reduction of the allocation bands from 5 to 3 and increase of the percentage of Secondary One discretionary places from 10 to 20. the short-term SSPA mechanism was intended to enable the various stakeholders in the education sector such as school heads, teachers, students, parents to adapt to the changes and to enable to Government to learn from the experiences gained from the early stage of implementation of the short-term SSPA mechanism to review and refine the SSPA System. In order to assess the perception of the stakeholders on the short-term mechanism, the Government has appointed the Chinese University of Hong Kong to conduct a “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 System”.

(ED02907)

Further Evaluation on the Implementation of the Medium of Instruction Guidance for Secondary Schools

✍ 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)

☐ 18 July 2002

❖ Education & Manpower Bureau, HKSAR Government

This study is a 2-year longitudinal research, which is an extension of an ongoing 3-year longitudinal study commissioned by the Education Department (ED) in 1999. in the prior 3-year study, which was commissioned to this research team, we have designed the study as an ex post facto policy evaluation research to assess the effects and consequences of the policy measures stipulated in the *Medium of Instruction Guidance for Secondary Schools (Guidance)* (Education Department, 1997).

One of the primary objectives of the present 2-year extension of the study is to assess the effects and consequences of the *Guidance* in a longer timeline. More specifically, it intends, on the one hand, to trace the academic and personal developments of students in EMI and CMI schools as they advance to their senior-secondary years. On the other hand, the study aims to assess the accommodating measures adopted by school administrations and teachers in response to the changes entailed by the *Guidance*. The design of the study is basically organized into two parts, namely the quantitative (for 100 sample schools) and qualitative parts (for 20 sample schools).

(ED02461)

A Research Based Training and Development Programme on 'Needs Analysis for Aspiring Principals'

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

☐ 25 January 2003

❖ Education & Manpower Bureau, HKSAR Government

The overall aim of this project is to provide aspiring principals with an initial gauge of their strengths and

development 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, its objectives 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. By completing the Needs Analysis process, Aspiring Principals will:

- (1) Receive feedback indicating their current strengths and weaknesses in relation to the context of school leadership in Hong Kong.
- (2) Develop a greater personal awareness of their leadership capability and potential.
- (3) Reflect critically on the quality of their leadership within school-based management.
- (4) Reflect critically on their motivation and desire to become a principal.
- (5) Identify what they need to do in order to be better prepared for the principalship.
- (6) Decide an appropriate professional development and personal pathway that leads from where they are currently to attainment of the principalship.

(ED02619)

Strengthening School Leadership: Identifying the Development Needs of Serving Principals in Hong Kong

✍ WALKER Allan David • QUONG Terrence*

☐ 1 May 2003

❖ Education & Manpower Bureau, HKSAR
Government

The project aims to design and trial a user-friendly needs analysis package for serving principals in Hong Kong as they face the challenge of leading their

schools to a better future. The focus of the package is on future leadership for school-based management and school improvement. Use of the needs analysis package will assist experienced principals in three interrelated ways. First, it will reaffirm their dedication to ongoing personal and professional learning. Second, the needs analysis will provide opportunities for principals to collect insights from various sources about their current leadership and stage of learning. Third, engagement in the package will offer them the opportunity to plan and implement a meaningful, and ongoing Continuing Professional Development Action Plan (a CPD Action Plan). The package design will acknowledge the experience, qualifications, knowledge and skills principals currently hold and also their right to determine their own level of involvement in the needs analysis process.

(ED02990)

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>
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
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)	2001-02	Programme for International Student Assessment 2003 in Hong Kong (ED01712)
2001-02	UNESCO - Student Loan Scheme Project (ED01368) ✍ CHUNG Yue Ping Stephen		✍ 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) • YIP Din Yan (Dept of Curriculum & Instruction) • MAN Yee Fun Evelyn (Dept of Curriculum & Instruction)
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)	2000-01	External Environment and School Organizational Learning (CU00368) ✍ LAM Yee Lay Jack
		2001-02	Enhancing English Proficiency through School-based Learning (ED01985) ✍ LAM Yee Lay Jack
2001-02	Parental Involvement in Children's Education: What Works and How It Works (ED01335) ✍ HO Sui Chu • KWONG Wai Man*	2001-02	Cross-cultural Comparisons of Processes and Stages of Organizational Learning (ED01422) ✍ LAM Yee Lay Jack
2001-02	OECD Programme for International Student Assessment (PISA): The Hong Kong Trial Study of PISA 2003 (ED01768) ✍ HO Sui Chu • WONG Ka Ming Patrick (Dept of Curriculum & Instruction) • LAM Chi Chung (Dept of Curriculum & Instruction)	2000-01	School Self-evaluation and School-based Performance Indicators (ED20001) ✍ PANG Sun Keung Nicholas
		2001-02	Developing Schools through Self-evaluation (ED01672)

- ✍ PANG Sun Keung Nicholas
- 1999-00 Evaluation on the Implementation of the Medium of Instruction Guidance for Secondary Schools (ED99008)
- ✍ WALKER Allan David
- ✍ TSANG Wing Kwong • CHEUNG Sin Pui (Dept of Curriculum & Instruction) • CHUN Ka Wai Cecilia (Dept of Curriculum & Instruction) • HO Wai Kit (Dept of Curriculum & Instruction) • HUNG Fan Sing • LEE Chi Kin John (Dept of Curriculum & Instruction) • LO Nai Kwai Leslie • 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)
- 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)
- 2001-02 Preparing for the Principalship: The Development Needs of Aspiring Principals in Hong Kong (ED01775)
- ✍ WALKER Allan David

RESEARCH PROJECTS

Emotional Intelligence, Social Coping and Psychological Distress among Gifted Students in Hong Kong

✍ CHAN Wai Ock David

☐ 1 March 2003

❖ CUHK Research Committee Funding (Direct Grants)

In Hong Kong, with the provision of a growing number of gifted programs in schools, educators are increasingly concerned with the social and emotional needs of gifted students, their adjustment to being gifted or being labeled gifted, and the development of preventive interventions to help these students with such difficulties. Since some of the adjustment problems of gifted students are associated to varying degrees with their heightened sensitivities to emotions that demand accurate appraisal as well as appropriate regulation, one could surmise that gifted students who are more emotionally intelligent might cope with such problems more adaptively, which might in turn lead to their reduced vulnerability to psychological distress.

The primary objectives in this proposed study are to explore gifted students' emotional intelligence, their social coping strategies, their psychological distress, and the relationships among these variables. The findings of this study will inform us on how gifted students in our sample usually cope with adjustment problems, and whether or not they experience significant levels of psychological symptoms. This information may help shed light on how best to help gifted students cope with the problems they face especially those as a result of their high abilities.

Such findings would have important implications for the provision of preventive interventions and the development of counseling services for gifted students in Hong Kong.

(ED02700)

Classroom Studies of Group Processes: How Do the Problem Solving Processes of Successful and Unsuccessful Groups Differ?

✍ CHIU Ming Ming

☐ 1 September 2002

❖ The Spencer Foundation

What helps productive group work? What hinders it? Researchers have argued that a group's structure, training and processes affect its outcome. Given solid group structure and training, this study focuses on group processes. Specifically, do cognitive or social-emotional process variables affect a) solution scores, b) correctness of later actions or c) cooperation during later actions? This study will re-analyze Webb and Farivar's (1999) data at the speaker turn level. Each speaker turn during group work will be captured within a five-dimensional framework of a) evaluation of the previous action, b) politeness, c) knowledge content, d) correctness and e) invitational form. Statistical analyses and case studies will document the relationships between process variables and outcomes, and among the process variables. Past studies of group processes faced six major difficulties. First, effects can vary over different groups. Second, effects can change over time. Third, identifying time periods with stable effects is hard. Fourth, serial correlation of the residuals can occur. Fifth, multiple outcome variables can affect one another. Sixth, outcome variables can be discrete or continuous. This study presents a new method that addresses all of these

issues: multivariate, multi-level Probit/Logit with breakpoint estimation and time series analyses. The results will help build a systematic understanding of group processes. Eventually, this line of research will help people work together more productively.

(ED02992)

Classroom Studies of Group Processes: How Do the Problem Solving Processes of Successful and Unsuccessful Groups Differ?

✉ CHIU Ming Ming

☐ 1 November 2002

❖ CUHK Research Committee Funding (Direct Grants)

What helps productive group work? What hinders it? Researchers have argued that a group's structure, training and processes affect the group's outcome(s). Group structure (e.g., group size) and group training (e.g., to improve communication) have received more attention because they are relatively easier to measure.

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 (1) later cooperation, (2) correctness of actions and (c) solution scores?

About 200 students in 6 primary school classes in 2 schools 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 (1)

evaluations of one another,(2) knowledge content and (3) invitation to participate, (4) correctness, and (5) politeness level. 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 and eventually help people work together more productively.

(SS02766)

Rudeness and Status Effects during Group Problem Solving: Do They Bias Evaluations and Reduce the Likelihood of Correct Solutions?

✉ CHIU Ming Ming

☐ 1 March 2003

❖ CUHK Research Committee Funding (Direct Grants)

Rudeness and academic status can affect group problem solving processes. 80 high school students completed a questionnaire and were videotaped doing an algebra problem in groups of 4. Using a new statistical method for analyzing group processes in large data sets, I analyze predictors of agreement at the speaker-turn level, and of solution score at the group level. At the speaker turn level, correctness of the previous speaker is expected to predict agreement. Other hypotheses include whether agreement is affected by the previous speaker's

academic grade, academic status, recent agreements and disagreements, rudeness. Furthermore, I test whether successful groups differ from unsuccessful groups. At the group level, hypotheses include whether solution score is predicted positively by academic grade and percentage of correct turns, but negatively by rudeness.
(SS02426)

✍ CHAN Wai Ock David • CHEUNG Ping Chung • CHENG Pui Wan

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

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

Edition Title/Investigators

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

2000-01 Assessing Characteristics and Needs of Gifted Students: Perspectives from Students, Their Peers, Parents, and Teachers (ED20011)
✍ CHAN Wai Ock David • CHENG Pui Wan • CHEUNG Ping Chung • YUNG Ka Kui* • CHAN Lai Kwan*

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

2001-02 Developing and Evaluating a Chinese Cognitive Strategy Instruction Program for Junior Secondary Students in Hong Kong (ED01566)
✍ CHAN Wai Ock David • LAU Kit Ling*

1999-00 The Psychosocial Development and Achievement Motivation of Gifted and Non-gifted Children in Hong Kong (CU99139)
✍ CHEUNG Ping Chung • LAU Sing*

2001-02 Coping Strategies and Psychological Well-being of Gifted Students in Hong Kong (ED01935)
✍ CHAN Wai Ock David

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

2001-02 Successful Leadership Development Programme (ED01812)

2001-02 Classroom Studies of Group Processes: How do the Problem Solving Processes of Successful and Unsuccessful Groups Differ? (SS01890)
✍ CHIU Ming Ming

- 2001-02 Subjective Meaning of Depression, Anxiety, Anger among Children and Their Help-seeking Behavior (SS01373)
✍ LAM Ka Nei
- 2000-01 Relations of Preferential Processing Modes to Intra-individual Decalages in Cognitive Development (SS00517)
✍ NI Yujing
- 2000-01 Implementing a Career Guidance and Counselling Programme in Secondary Schools (ED20012)
✍ LEUNG Seung Ming • LAU Siu Ying Patrick • CHAN Po On Ella* • LEUNG Kin Man Thomas*

RESEARCH PROJECTS

PE Teachers Development Programme - Workshops for PE Curriculum Leaders in Primary Schools

✍ HA Sau Ching Amy • CHAN Wan Ka Daniel • SUM Kim Wai Raymond

☐ 1 September 2002

❖ Curriculum Development Institute, Education Dept, Hong Kong Government

The purpose of this project is to provide a staff development programme for the local primary school teachers with the following objectives:

- (1) To familiarize the curriculum leaders with the trend in PE curriculum development;
- (2) To enrich the curriculum leaders' professional expertise in the role of a PE panel in schools;
- (3) To enhance teachers to reflect on their attitudes, teaching performance and programme development; and
- (4) To assess the effect of this professional development programme

(ED02542)

Analysis of Muscle Recruitment of Wushu Athletes - A Study on Tai Chi Chuan

✍ HONG Youlian

☐ 1 November 2002

❖ Hong Kong Sports Development Board Research Grant

The basic movements of the Competitive Tai Chi Chuan (TCC) Series performed by Hong Kong Wushu athletes will be video filmed and the

electromyography (EMG) signal of eight selected muscles on both side of lower extremities will be recorded by telemetry EMG system. The video will then be digitised and analysed on an advanced motion analysis system to provide detailed kinematics of the movements. The recorded EMG signals will be processed by commercial EMG software to provide information of timing and intensity of the muscular contraction of each selected muscle. The percentage maximum voluntary contraction will be used to represent the intensity of muscular contraction. Based on the information obtained, the characteristics of muscle recruitment in performing the basic movements of the Competitive TCC Series will be established. The findings of this study will be disseminated to Hong Kong Wushu coaches and athletes to enhance the coaching and learning process and injury prevention. The findings of this project will also add to the new knowledge of International TCC.

(MD02720)

Biomechanics Study on Gait, Posture and Neuromuscular Activity during Stair Ascending and Descending in Children with Different Loaded Backpack

✍ HONG Youlian • LI Jingxian

☐ 1 December 2002

❖ CUHK Research Committee Funding (Direct Grants)

Both load carriage and stair ascent or descent are common activities in normal daily life of the students. Information about the alterations of gait, posture, and muscular activities in trunk and lower extremities caused by carrying heavy schoolbags during stair walking in children has not yet been reported. The purpose of this study is to investigate the

biomechanics characteristics, in terms of locomotion kinematics and kinetics, and muscular activity, of school children during stair ascent and descent with different load school backpack. Fifteen male junior students aged 12 years old will be randomly recruited and assigned to carry load of different weights, with 0%, 10%, 15% and 20 % of subject's body weight. Sagittal plane locomotion of the subjects during ascending and descending stairs will be recorded by the two-dimensional video filming techniques. The ground reaction force and the plantar pressure distribution will be measured using Novel Insole Pedar measurement system. The muscular activities of trunk and lower extremities will be measured by electromyography (EMG) system. The measurements in kinematics, kinetics, and muscular activity will be synchronized. It is expected that the results of this study will quantify the characteristics of kinematics, kinetics and muscular activities induced by the load carriage during stair ascending and descending. The data obtained from this study will enable us to understand the association between the carried load, altered gait, posture, and muscular activities of trunk and lower extremities during stair ascending and descending in children.

The information generated from this study will provide significant contribution to the existing knowledge of pediatric exercise and orthopedic 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 school children.

(ED02721)

Biomechanics Study on Prevention of Occupational Slip and Falls in Hong Kong

✉ HONG Youlian • LI Jingxian

□ 1 April 2003

❖ Occupational Safety and Health Council
Research Grant

Occupational slip, trip, and fall-related morbidity and mortality are considerable in many countries. In Hong Kong, slip and falls were the leading occupational incidents in the past year of conducting the survey, accounting for 25% of the total occupational accidents (Occupational Safety and Health Council Hong Kong, 2001a). The proposed project consists of two phases. The first phase is to survey the shoe wearing habits and slip related working environment in the construction industry in Hong Kong. The second phase is to measure the shoe-floor contaminants interaction and movement characteristics of subjects walking in slippery conditions and the strategy used to prevent slip, trip and falls. Twenty-five healthy male adults, aged 20 to 25 years will be recruited to serve as the subjects. The three surface contaminant conditions, together with three types of shoes, will be included in the gait study. Ten trials will be conducted for each combination of surface contaminant conditions and shoes. For each trial, the subjects will be instructed to walk on the testing path and strike on the force plate mounted in the pass with a comfortable pace, and focus their eyes on a target in the front far wall of 5 m away. Subjects will be placed in a specially designed harness used to catch the subject when a fall occurs such that the subject will not strike the floor. Ground reaction forces, insole pressure measurement and movement kinematics will be measured using force plates, insole pressure sensors, and video analysis to reflect the slip resistance, foot plantar force exertion and gait patterns during walking and slipping. It is hoped that the information obtained from this study will help local workers in improving the safety shoe wearing habits and raising their

awareness of taking safety walking strategy when walking on slippery surface. This study will contribute to prevent slip, trip and falls in slippery working conditions in Hong Kong.

(ED02753)

Designing Athletic and Casual Footwear Based on Functional Testing and Computer Simulation

✍ HONG Youlian • HUI Kin Chuen (Dept of Auto. & Computer-Aided Engin.) • LI Jingxian • DU Ruxu (Dept of Auto. & Computer-Aided Engin.)

□ 1 April 2003

❖ Funding from Industrial Sponsors • Innovation and Technology Support Programme, ITF, Innovation & Technology Commission

Making more than 1.5 billion pairs of shoes every year, Hong Kong and the nearby Pearl River Delta area is one of the largest footwear manufacturing centers in the world. In order to sustain the continuous growth of this important industry, develop our own state-of-the-art technologies is of strategically important. The objective of the proposed project is to develop a new technology for designing athletic and casual footwear. The new technology consists of three parts: computer simulation, functional testing, and foot shape database. Computer simulation reveals the intricate reactions among the foot, the footwear and the ground based on the input information of foot shape, the mechanical properties of the materials used, and shoes' functional test data. It provides detailed information on how a shoe will function in various circumstances even before it is built. The simulation software is a stand-alone system that does not rely on specific commercial CAD packages. It accepts standard CAD data (such as DXF, STL, IGES) so that it can be integrated to all CAD systems

supporting standard CAD data format. In other words, it can be used together with most commercial CAD shoe design software systems to analyze the effectiveness of a shoe design. Functional testing is an approach that systematically tests the function of the shoes during various movements in human, providing dynamic features of shoes, such as cushioning, traction and stability, and prevention, etc. The foot shape database will contain the foot information of various human races, which will help the Hong Kong footwear manufacturers to design their products that best fit their customers around the world. The three technologies can be integrated with the existing footwear CAD/CAM systems. It will help the Hong Kong footwear manufacturers to establish their own brands, and transfer the industry from a follower to become a leader in the world. The positive economic gain will then follow.

(EE02586)

The Development of Mass Exercises in Schools

✍ WONG Heung Sang Stephen

□ 1 September 2002

❖ Education & Manpower Bureau, HKSAR Government

The educational journey our children toward becoming healthy and productive members of society should include the two key academic components of a coordinated school health programme: physical education and health education. Our society has recognized that the relationship between academic achievement and a student's health status was acknowledged to be powerful and inextricable. Educators face a collective and moral imperative to engage schools, communities, and families in guiding our children to use knowledge acquired in schools to make informed, intellectually driven decisions that

will lead to a productive lifetime of health and wellness. Exercise and other lifestyle factors are major determinants of an individual's health status and provide great opportunities for continuous progress in children health.

The aims of the present project are:

- (1) to work with schools to develop school-based regular mass exercises;
- (2) to collect school-based experiences in promoting mass exercises for reference by schools;
- (3) to evaluate the effect on students' regular participation in mass exercise;
- (4) to develop supporting materials for dispatch to teachers;
- (5) to develop supporting materials for teachers' reference on web;
- (6) identify suitable models to design and deliver the exercise programmes to other schools in Hong Kong; and
- (7) promote a good physical culture through regular exercises during the school day.

(ED02916)

Effect of Glycemic Index Meals on Running

✉ WONG Heung Sang Stephen

❏ 1 January 2003

❖ Hong Kong Sports Development Board Research Grant

The purpose of this study is to investigate the effect of consuming a low glycaemic index (LGI) meal and high glycaemic index (HGI) meal prior to prolonged, submaximal running on energy metabolism and running performance. Twelve endurance-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. Venous blood will be collected at regular intervals for biochemical analysis. Expired air will also be collected regularly for gas measurement.

(MD02747)

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>
2000-01	Quality Assessment of Hong Kong Secondary School Physical Education: The Use of Self-Evaluation Approach and Performance Indicators (ED20010) ✉ HA Sau Ching Amy • JOHNS David Paul
2001-02	An Olympic Education Program for Hong Kong, Canada and Beijing School Children (ED01995) ✉ HA Sau Ching Amy • BINDER Deanna L* • REN Hai*
2000-01	Exploring the Characteristics of Neuromuscular Activity and Movement Kinematics and Kinetics in Tai Chi (TC) Exercise (CU00360) ✉ HONG Youlian • LI Jing Xian*

- 2001-02 The Effects of Tai Chi Exercise on Proprioceptive and Neuromuscular Responses in the Elderly (ED01346)
 ✍ HONG Youlian • LI Jingxian
- 2001-02 Towards Understanding the Lower Extremity Internal Load Exertion and Balance Control During Tai Chi Exercise (ED01927)
 ✍ HONG Youlian • LI Jingxian
- 2000-01 Effects of Enriched Physical Education Programs on Physical Fitness in Schoolchildren (CU00381)
 ✍ JOHNS David Paul • HA Sau Ching Amy • WONG Heung Sang Stephen
- 2000-01 Regular Exercises for Health - Morning Exercise, Eye Exercise and Light Stretching Exercises During the Change of Class Period (ED20016)
- ✍ WONG Heung Sang Stephen • LAU Wing Chung# • SUNG Yn Tz Rita (Dept of Paediatrics) • CHEN Jidi* • CHEN Shiyi* • LI Zhijun* • LEE Yau Wing Vincent* • CHAN Kui Yin*
- 2001-02 High Glycaemic Index Foods: Effect of Feeding Pattern on Exercise Performance after Recovery in Athletes (MD01582)
 ✍ WONG Heung Sang Stephen • JOHNS David Paul
- 2001-02 Effect of Pre-exercise Glycemic Index Meals on Running Performance (MD01612)
 ✍ WONG Heung Sang Stephen

RESEARCH PROJECTS

Obtaining Accurate Descriptions of Websites and Investigating the Ways in which the Design Features of Educational Websites Impact on Students' Approaches to Learning

✍ MCNAUGHT Carmel Marie • KEMBER David
Richard • MA Suet Fan • LEUNG Yin Ping

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The project aims to provide detailed descriptions of educational websites used in courses in higher education in order to investigate how these websites might support student learning. This design instrument will be used in a pilot study of how the use of the Web can support the development of deep approaches to learning which are needed in graduates in Hong Kong and elsewhere who will be entering the work force of a knowledge-based economy.

The project involves the development of an instrument that will enable any educational website to be described in terms of how the design of the website supports communicative interaction, feedback on learning progress, study program

management and content resources for students to engage with. The development of this instrument will involve the project team, an Advisory Group and teachers from 12 case courses selected for the project. The other instrument used will be the Study Process Questionnaire, a well validated questionnaire for determining students' approaches to learning.

In this project 12 case courses will be selected from universities in Hong Kong where the Web is a key component of the course. Data on the characterization of the websites and on students' approaches to learning will be obtained from these 12 courses. A preliminary model will be developed which indicates how specific features of educational websites, within the context of particular courses in higher education, are related to a deep approach to learning on the part of students.

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