



The Hong Kong Institute of Education
Jockey Club Primary School

香港教育學院賽馬會小學

資訊科技教育電子學習系列：「自攜移動裝置—— 推展一人一機的電子學習方案」

學校領導在推動電子學習的角色

Mrs. Shirley Duthie

杜莊莎妮

8.7.2015



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through the shared joy of learning and teaching*



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SCHOOL BACKGROUND

學校背景

A school established by the *Hong Kong Institute of Education in 2002* to contribute to the advancement of primary education and teacher development in Hong Kong



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2011

- Towards the end of 3rd round of school development cycle
- Moving into 2nd decade of school operation

**Direction for future school development?
未來發展方向?**





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SCHOOL MISSION

辦學使命

- Continuously improve the quality of learning and school-life for pupils through *research-based innovations* in educational practices.

以教育研究為依據的創新教育理念

- *Demonstrate curriculum leadership* and further the development of education in Hong Kong
展示創新的教學方法





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21ST CENTURY

- Globalization
- Knowledge economy
- Intense competition among cities / nations / regions
- Advancement of new technology
- Digital ways of living and communication
- Abundance of information and digital resources





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Our Changing World 世界在變

What is the Difference?

20th Century Learning

- Limited access to K & I
- Facts & information are “spoon-fed” to students
- Emphasis on learning content knowledge
- Goal is to master content knowledge
- Classroom-limited learning & dissemination

21st Century Learning

- Infinite access to K & I
- Teachers use discovery, inquiry-based approach
- Emphasis on process skills for lifelong learning
- Goal is to learn skills to solve problems
- World-wide Learning & dissemination



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Our Changing World 世界在變

What is the Difference?

20th Century Learning

- Textbook learning from one source, primarily print
- Conceptual learning on individual basis
- Paper-pencil, high stake tests on facts and content knowledge

21st Century Learning

- Real-world, real-time learning (various sources)
- Project-based learning on team basis
- Various forms of assessments
high-stake tests to portfolio





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EDUCATING 21ST CENTURY STUDENTS 二十一世紀學生的學習方式

- Personalized learning
- Individualized learning
- Self-directed learning
- Self-regulated learning
- Life-long learning
- Life-wide learning
- Interactive learning
- Collaborative learning
- Social learning





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WHY E-LEARNING

為何選擇「電子學習」？

- New technology a necessity in everyday life
- Arouse interest, improve motivation and promote engagement
 - mobile
 - multi-media
 - update with time
 - interactive
 - immediate, instant, real time
 - connective
- Enable learning anywhere, anytime with anyone
- Enable learning beyond classroom and class time
- data rich, allow for tracking and analysis



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SCHOOL LEADERSHIP

學校領導創造條件

"School leadership is second only to classroom teaching in its impact on student achievement and well-being. *School and system leaders create the conditions* for effective teaching and learning."

(Ken Leithwood)





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STAKEHOLDER'S CONSENSUS & READINESS 持分者共識及準備

- School Management
- Teachers
- Parents
- Students





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School Development Plan (2012-2015)

學校發展計劃

- Development innovative learning and teaching strategies through implementing e-learning and constructing a seamless learning environment
展示創新的學與教模式，發展電子學習，建構無縫學習環境





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TALENT SEARCH 招攬人才

- Create new senior teaching post
- PSM (e-Learning / Innovative Teaching)
- Specific tasks
- Promotion / Recruitment





INNOVATION AND RESEARCH TEAM 成立創新及教研組

- Voluntary membership
 - started with **5** core team members, now **23** teachers
- Provided with mobile devices
- **Explores and tries out** innovative use of e-solutions, software, web tools, apps...
- Conducts action research





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FUNDING 爭取資源

- PTA donation
- School fund
- Extra Government fund
(e.g. Support Scheme for e-Learning in Schools)
- Staff Development Fund





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DIGITAL ENVIRONMENT

電子基建

- Wifi coverage up to 90%
- Started with **100 devices** / mobile devices connected, now **170 of devices**
- Enhanced technical support : 2 full-time TSS





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PROFESSIONAL DEVELOPMENT 專業發展

- Build collective capacity and community of practice (CoP)
 - School-based training
 - Peer observation
 - 5 week in service course
 - School visits
 - Seminar / workshops / international conferences





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PROFESSIONAL DEVELOPMENT 專業發展

- 5 week in service course



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Education Bureau



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PROFESSIONAL DEVELOPMENT 專業發展

- Seminar / workshops

Inquiry-based Learning in Mathematics and
e-Learning in Green and Cloud Computing Environment

數學的探究學習與
綠色及雲端運算環境的電子學習

Mathematics Learning and e-Learning
in the Twenty-First Century
二十一世紀的數學學習及電子學習

主辦：香港教育學院 博文及社會科學學院 數學與資訊科技學系

協辦：教育局資訊科技教育組 教育局數學教育組

TEDx



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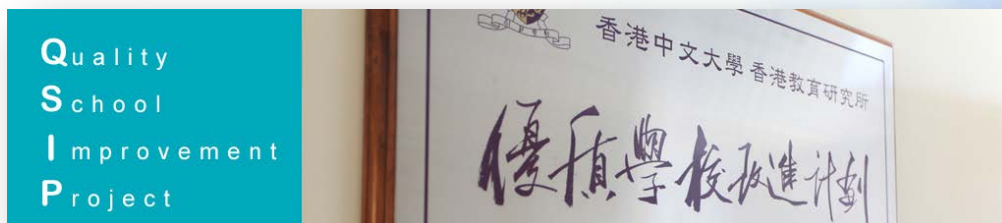


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PROFESSIONAL DEVELOPMENT 專業發展

- Seminar / workshops



**East-Asian Association for Science
Education (EASE) –
ICT in Science Education**





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PROFESSIONAL DEVELOPMENT

專業發展

- Seminar / workshop
 - 教育 3.0 研討會 – 轉變了的學習模式 – 個案分享
 - 香港數碼學堂 – 網上學習影片



You Tube | FOR SCHOOLS
教導。參與。啟發。 [click here!]

今天開始
加入全球網上教室!



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PROFESSIONAL DEVELOPMENT 專業發展

- Local conferences



成為Microsoft卓越教師



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PROFESSIONAL DEVELOPMENT 專業發展

- International conferences



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PROFESSIONAL DEVELOPMENT 專業發展

- international conferences



Microsoft in Education

Global Forum

Barcelona 11-14 March 2014



Microsoft Education
Partner Summit
25th March, 2013.



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PROJECTS/PROGRAMMES

參與計劃

- Provide students with e-experience and life-wide learning
 - 《1 AP x 30 iPad》
 - eLearning@Smart WiFi Bus 2 無線巴士遊蹤樂無窮



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PROJECTS/PROGRAMMES 參與計劃

- 農務達人活動 戶外有機學習



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Cypher
Martin





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PROJECTS/PROGRAMMES 參與計劃

- Information Literacy

有機上網
WebOrganic

「國際互聯網安全日2014」
互聯網安全約章

互聯網是我學習和玩樂的地方。但我必須
小心並負責任地使用互聯網，明智地選擇
我所瀏覽的內容，說的話和談話的對象。

因此，我承諾會注意網絡安全，並於任何
時間遵守以下網絡安全規則：





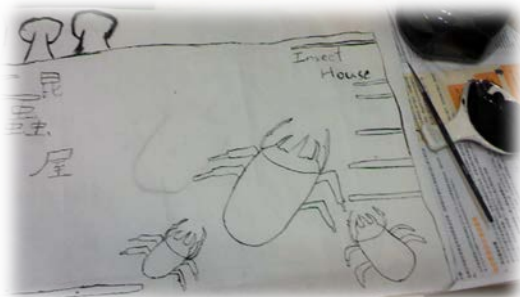
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Projects/programmes 參與計劃

Microsoft Partners in Learning (PiL) Network Project

- collaborative project with St. Mark Community School, Canada
- Introducing culture of our living community in Tai Po.
- via YouTube Channel



The cultural place I want to talk

► This is the Hong Kong Railway Museum. It is a train station in the past. There are old trains inside. You can walk into it.





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COLLABORATION AND PARTNERSHIP 協作伙伴

- tap much needed extra resources



TOPPAN FORMS



有機上網
WebOrganic



HKT



3M



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PILOT 1:1 COMPUTING

先導一人一機

- E-Bag Class – Buy Your Own Device
 - Started with *one class of P.4*, now *P.4,5,6 one class* each
- BYOD – BRING Your Own Device
 - Tried P.5,6, now *P.6* only





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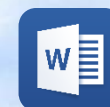
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INNOVATIVE USE OF E-SOLUTIONS

(web tools/platforms/apps)

創新方式運用新科技作教學用途

- leverage on global e-Learning resources





ACTION RESEARCH / RESEARCH 行動學習及教研

- Collaborate with HKIEd academics to investigate different aspects of eLearning
 - The use of Social Network for Students' Knowledge Construction
 - Bring Your Own Device for Mobile-assisted Seamless Science Inquiry in a Primary School
 - Using Microsoft OneNote to Develop Self-regulated Learning of Primary Students in Hong Kong
 - Exploiting the Collabrify Mobile Platform to Scaffold Synchronous Collaboration
 - Exploration of Pedagogical Use of Social Learning Platforms in the Tasks of Self-Editing and Peer-Assessment in Elementary English Classrooms for Enhancing Accuracy and Expression in English Writings among Learners





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DISSEMINATION OF PRACTICES 專業分享

- Open lessons
- Sharing sessions
- Paper presentations
- e-Learning Newsletters
- Media Interviews





INTERNATIONAL RECOGNITION

國際認可

- Microsoft Patherfinder School (2012-13)
 - 1 of 64 schools worldwide, **only two** in HK
- Microsoft Mentor School (2013-14)
 - 1 of 80 schools worldwide, **only one** in HK
- Microsoft Showcase School (2014-15)
 - 1 of 150 schools worldwide, **only one** in Asia





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EXTRACTS FROM EXTERNAL SCHOOL REVIEW (2015)

外評報告摘要

- 發展至今，**學校在電子學習方面的成效顯著**，努力值得讚賞。
- 「創新及教研組」近年更藉著推動電子學習，**逐步推展多項具成效的計劃**，如「電子書包」、「Bring Your Own Device」(BYOD)等，教師互相鼓勵及觀摩，陸續有教師自願加入電子學習組，嘗試運用電子教學，**學校在推動電子教學方面的人力逐漸加強，有效促進這方面的持續發展**。
- 本周期學校有策略地發展電子學習，無論在基本設置，教師培訓等都能作有效的配合……經過兩年的努力，**現時大部分教師均參與使用電子教學，學與教的表現理想，成效顯著**……從課堂觀察所見，**有關課堂的設計大都能善用電子平台及工具進行課堂活動，有效增加師生間的互動**，學生亦能積極參與課堂活動，以及**透過教師即時的回饋改善學習，大大提升學生的學習興趣和自學能力**……學校能集結有關電子教學的經驗，不斷優化，**成效不續**，在進行電子學習的課堂上，**學習氣氛良好，教學效能良佳**。教師和學生均熟習以電子學習模式上學。



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EXTRACTS FROM EXTERNAL SCHOOL REVIEW (2015)

外評報告摘要

- 高年級的「電子書包」班的學生更可透過拍攝短片，將學習過程及成果，上載至網上平台供教師審閱及促進同儕間的交流，有效提升學生的學習興趣及鞏固他們運用資訊科技學習的能力……教師善用學生上載於網上學習平台的課前預習內容於課堂上進行教學，並適切地安排延伸的學習活動，如瀏覽網上片段或自行製作短片上載至互聯網與其他學生分享，有效維持學生的學習興趣，鼓勵學生自學，並能加強學生的學習主動性……部分教師更透過即時分析學生的答案，掌握學生的學習情況，並能針對他們的學習難點，適時調整教學步伐或策略，透過即時的回饋，有效促進學生的學習，值得讚賞。



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EXTRACTS FROM EXTERNAL SCHOOL REVIEW (2015)

外評報告摘要

- 學校成功引入不同的校外資源，尤其在資訊科技方面，亦獲得家長的支持，擴充學校的設備，滿足了電子學習的需要和持續發展……整體而言，學校能善用外界的資源來配合學生成長及學習的需要，有效策劃與學校發展需要相關的措施，如電子學習、教育研究等，不斷強化學校作為「窗戶學校」之特色，展現教研與創新的活力。
- **學校已成為發展電子學習的成功例子**，不時參與研討會及與外界分享經驗和成果，**帶動其他學校發展電子教學**。



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CHALLENGES

挑戰

- Costs and resources
- E-Learning pedagogy
- Professional learning community (PLC)
- Diffusion and scaling up
- Cyber wellness
-





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THE WAY FORWARD 未來發展

- Flipped Classroom
 - P1 to 6 (when appropriate)
- Coding
 - P.4 to 6





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THE EIGHT PILLARS OF INNOVATION 創新八大支柱

Susan Wojcicki, Senior VP of Advertising, Google

- have a mission that matters;
- think big but start small;
- strive for continual innovation not instant perfection;
- look for ideas everywhere;
- share everything;
- spark with imagination – fuel with data;
- be a platform;
- never fail to fail.





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創新是永續的不歸路，也是教育向前走的動力
創新必須結合科技，回歸人性
創新必須創造價值，回到自然

新北市北大高中， 薛春光校長





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FAVORABLE CONDITIONS AT HKIEdJCPS 校本有利條件

- School background
- School community
- School culture
- Team Work
- Relationships
- Trust
- Support
- Passion





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SCHOOL LEADERS AS FOCUSER, FACILITATOR , BUFFER AND AS BRIDGES

學校領導角色

- Motivating teachers' will
- Building teacher capacity
- Establishing collaborative and participatory decision-making processes
- Making research-based, information-rich decisions
- Monitoring, recognizing, and rewarding practice and learning





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TEACHER MATTERS TEACHER GROWTH 教師專業成長

