

# International Cooperation Programs for ICT Application in Basic Education of China: A Multiple-Case Evaluation Study

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# Background

- National efforts to promote ICT application in education
- International cooperation projects



**Microsoft®**

**ORACLE®**



Canadian  
International  
Development  
Agency

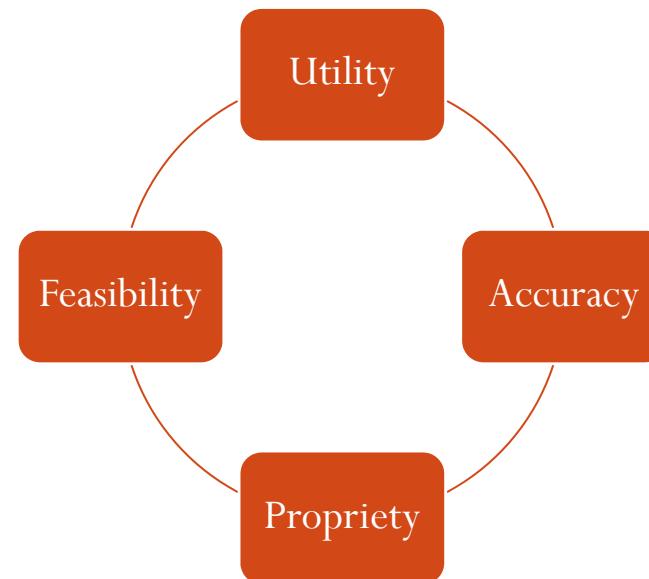
- The role of program evaluation

# Program evaluation

- What is program evaluation?
  - Program evaluation is the use of *social research methods* to systematically investigate the *effectiveness of social intervention programs* in ways that are adapted to their *political and organizational environments* and designed *to inform social action in ways to improve social conditions* (Rossi, Lipsey & Freeman, 2004, p. 16).

- Program evaluation standards

(Joint Committee on Standards for Educational Evaluation, 1994)



# Method

- Case selection criteria
  - “information-oriented”
- Participants and data
  - project documents and reports
  - semi-structured interviews
- Data analysis



# Intel® Teach Program

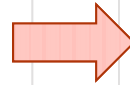
**Intel®  
Teach  
Program**

- Intel Education Initiative
- Intel Teach Worldwide
  - to improve teacher effectiveness in integrating technology
  - 9 million teachers in over 60 countries
  - comprehensive training curriculum
- Intel Teach in China
  - launched in 2000, Intel® and MOE in partnership
  - 1.5 million primary, secondary, and pre-service teachers



# 1. Training curriculum

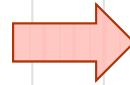
- Developers
  - headquartered in US
  - have good understanding of both theories and practice
- Global management
  - allow localization
  - all revisions be reviewed by its headquarter
- Content
  - project-based learning and participatory training



- Quality training content
- Acceptance from teachers
  - Meet local needs
  - Quality assurance
- Introduce new concepts

## 2. Training support and program evaluation

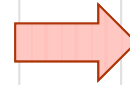
- Support teacher training
  - *Handbook of Training Guidelines*
  - Training support by experts
  - Teaching support by trainers
- Program evaluation
  - “suitability evaluation” in first 3 years
  - evaluate to improve teacher training, formative



- Meet challenges of diversity
  - Quality assurance
- Stimulate changes in authentic teaching practice
- Check socio-cultural suitability and trainers' capacity
  - Maintain the original design
- not adopted by other programs

### 3. Educational leadership

- Cultivate cadre teachers
  - advanced research and training workshops
  - international events
- Get principals and administrators involved
  - Annual Program Management Conference
  - Principal Leadership Forum
  - Camp Schools Creativity Trip



- Opportunities for communication and collaboration
- Introduce educational changes to the global community
- Nurture a pleasant political atmosphere for changes



# Strengthening Capacity in Basic Education in Western China Project

- Canadian International Development Agency (CIDA)

- \$10.5 million, 2002-2007
- 6 counties from Ningxia, Xinjiang and Sichuan
- to strengthen basic education through enhanced teacher training systems using distance education.



Canadian  
International  
Development  
Agency

- Efforts

- Learning Support Centres (LSC)
- In-service teacher training on the *Student-Centered Instructional (SCI)* approach
- Educational resources

## Project participants

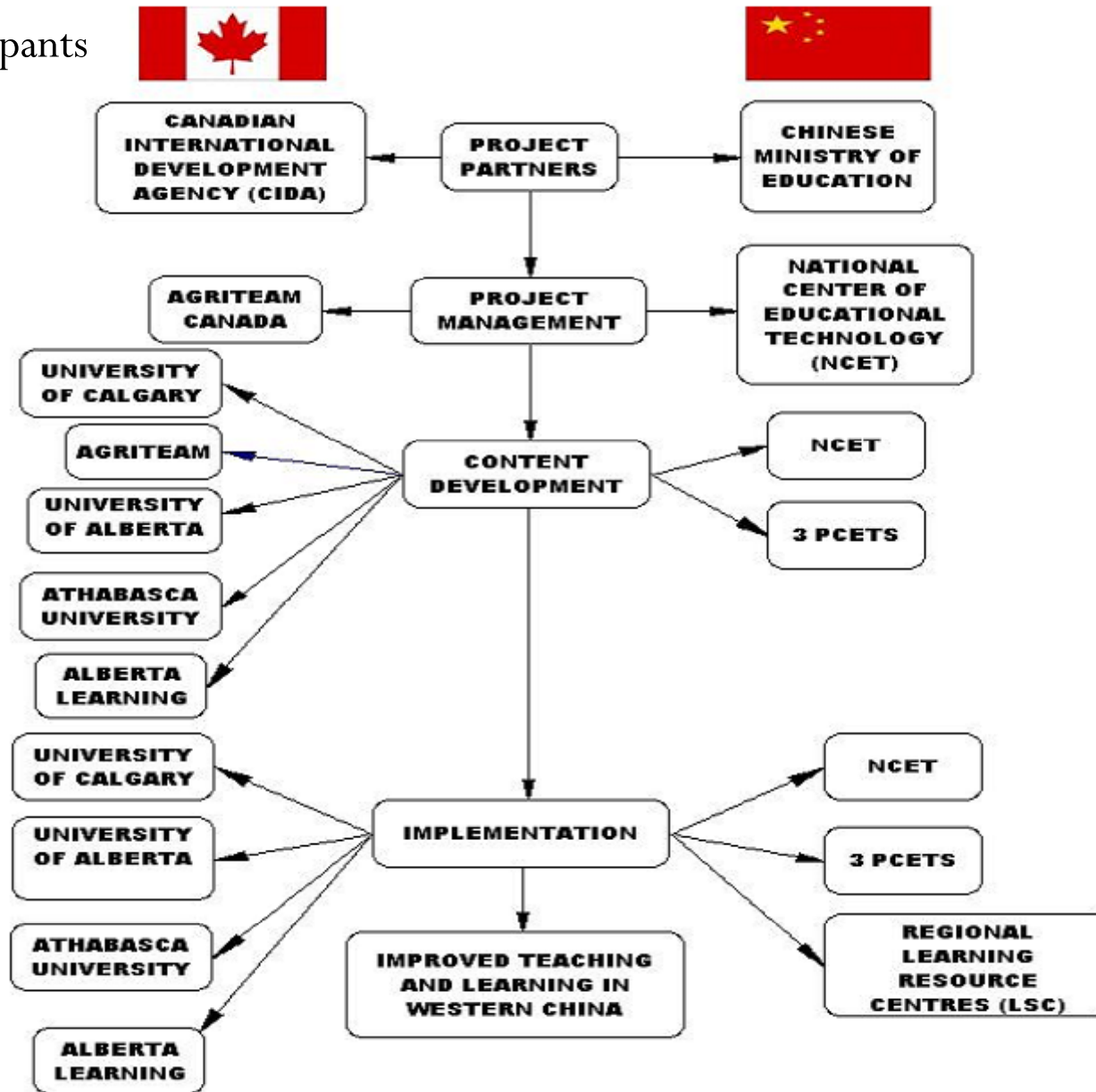
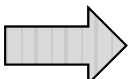
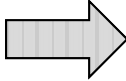


Figure from: Crichton, S. & Kopp, G. (2006). Only One Million Teachers to Train. In B. Pasian. *Plan to Learn: Case Studies in eLearning Project Management*. Canadian eLearning Enterprise Alliance (CeLEA).

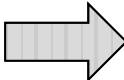
# 1. Make connection with previous projects

- Baseline survey at the very beginning
  - To better use technology equipment from the Li Ka-Shing project
  - Learning Support Centres
  - Transform participants' understanding of technology
- 

## 2. Introduce advanced instructional philosophies

- Student-centered instruction (SCI) approach
    - Casebook: *Student Centred Instruction: Classroom Suggestions for Teachers*
  - Develop subject resources
    - Designed by Canadian experts and NCET, developed by PCET
    - *Working Manual for Instructional Design*
  - Encourage educational research in schools
- 
- A departure from teacher-centered to student-centered instruction of teachers (?)
    - 4 training courses
  - Resources in 3 subjects
  - Capacity of designing training
    - Systematic approach of developing educational resources

### 3. Drawbacks of CIDA project


- Absence of a sustaining evaluation component
  - “Power structure”: decision made by Canadian experts
  - Too many issues to be addressed; project design was too complex
- 
- No way to know whether the SCI approach has been applied or whether resources have been used
  - Barriers to better understand local context and Chinese partners

# Microsoft Partners in Learning

- As a 10-year global initiative, 2003-2012
  - to improve teaching and learning
  - more than 8 million teachers and 190 million students in 114 countries till 2009
- In China, two 5-year phases
  - 2003-2008
    - Construction of technology infrastructure
    - Teach education
    - Competition
  - 2008-
    - Nurturing creativity talent in education



# 1. One Hundred Computer Classrooms Plan

- Construct one computer classroom for each of 100 schools, in collaboration with the *Modern Distance Education Project in Rural Schools*
  - A ten-day training for computer classroom administrators
- 
- Technology equipment
  - Capacity to use technology

## 2. Teacher training

- Training for ICT teachers
  - Regular training delivered by DVD
- Training for subject teachers
  - Designed by graduate students



- Provide an arena for local experts
- But this project falls short in introducing outstanding ways of teaching and learning with technology from other countries





### 3. Competition activities

- Competitions for teachers to share their creative usage of technology
  - Competitions for students to share their school work
- ➔
- Spurred the development of project-based learning activities in elementary and secondary schools



# Conclusions

- Impacts of international cooperation programs
  - helping to train millions of elementary and secondary teachers
  - improving ICT literacy of teachers and students
  - introducing advanced educational philosophies, beliefs and concepts
- developing hardware and software resources in western and rural areas
- developing educational resources (for both curriculum and extracurricular)
- strengthening the capacity to develop quality educational resources in China
- providing funding for teacher education in local educational department
- providing rich experience in project management of distance education programs and teaching training programs
- introduced successful cases of educational reforms and outstanding teachers and students from China to the global stage

# Conclusion (cont'd)

- Enablers and Inhibitors
  - challenges in localization
  - to accurately define participants and their needs as well as implement each program step
  - a deep understanding about local politics, economy and cultures, the gap between cities and rural areas, and local conditions which enable or disable the implementation of projects
  - support from school or regional leadership

# THANK YOU!

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