Use of ICT in Education in Rural Schools in Thailand: Lessons Learned from a Pilot Project

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Education opportunities for Thai rural children

- General public schools ⇒ MoE
- Community learning centers ⇒ MoE
- Border patrol police schools ⇒ MoI
- Private charitable schools
- Schools for bhuddist monks ⇒ MoE (but different authority from general public school)
Facts:
There are approx. 36,000+ schools in Thailand and approx. 3,000+ are in rural/remote areas

Among those are Suksasongkhro and Rajaprachanukhro schools: School for the disadvantaged (boarding, offering classes from kindergarten to upper secondary level)
IT Project Under the Initiatives of
Her Royal Highness Princess Maha Chakri Sirindhorn
“The most important basic right of human is to have sufficient food according to the standard for basic living. Besides food, one more basic right is education. The earlier the person get food to nurture the body and have an opportunity to learn, the better it is. They provide the foundation of development for the rest of the person’s life.”

H.R.H. Princess Maha Chakri Sirindhorn, 1995
H.R.H. Princess Maha Chakri Sirindhorn’s IT Project

- Starts implementation in 1996
- Received funds from the Government Lottery Office
- H.R.H. chairs the executive committee overseeing the projects
โครงการเทคโนโลยีสารสนเทศ

สมเด็จพระเจ้าบรมวงศ์เธอ เจ้าฟ้าฯ กรมพระยาดำรงราชานุภาพ

เว็บไซต์นี้จัดทำขึ้นเพื่อนำเสนอโครงการนี้แก่พี่น้องประชาชน ที่จะมีประโยชน์อย่างยิ่ง สำหรับการเป็นส่วนหนึ่งในการสร้างความเป็นอยู่ที่ดีในสังคม

การติดต่อ: คณะทำงานโครงการเทคโนโลยีสารสนเทศ สำนักงานราชวิทยาลัย
Emphasize on the use of IT for the under-privileged, e.g., rural school children, disabled children etc. to increase opportunity to access better education

Pilot scale implementation
Currently, 85 schools are in the program, covering 37 provinces nationwide.
Baan Namree School, Nan
Baan Swa School, Nan
ICT Development in Rural Schools

เนื้อหา (content)

กระบวนการเรียนการสอน (ICT integration)

พัฒนาครู (Teachers Development)

การบริหารจัดการ (School Management)

โครงสร้างพื้นฐาน (Infrastructure) (PC, LAN, Internet connection)
Examples of Projects under Each Development Strategy
Key Principles

• HRH emphasizes on monitoring and evaluation, and start “small” principle, i.e., develop according to their readiness and absorptive capacity and do not over-invest in technology
Provision of Computers/LAN

- Used
- New

Now, every school has internet connection, via a leased line, ADSL, or satellite, with speed 64 Kbps up to 2 Mpbs.
Support of Books & Teaching Materials

- IT Book Cabinet (approx. 200 book titles)
Teachers Training

Use of CAI and Development of Lesson Plans

Emphasizing on ICT integration
Teachers Training

NECTEC

A member of NSTDA

A Driving Force for National Science and Technology Capability
Physics Cyber Lab
Using Physics Cyber Lab in Classroom

Teacher use Physics Cyber Lab before starting a real experiment
Project-Based Learning

1st Prize

Thai silk: Thai folk wisdom
Suksasongkroh Tawatburi, Roi-et

Website

E-book
1st Runners-up
Save for School
Suksasongkroh Amnajcharoen

ผลงานครู
2nd Runners-up

The Study of Wastewater in Suksasongkroh Chiangmai
Suksasongkroh Chiangmai

Teachers’s work

Students’ work
Programming with LOGO

Teachers and students present their work

Teachers network

Training of teachers and students

Set up school server
eDLTV (Distance Learning TV) Project

- E-learning system containing learning materials in all (6) subjects for secondary school level, i.e., Thai, English, Science, Mathematics, Social studies, Health & Hygiene
- Also serve as teachers development, in the process of content production
- Use open source software
- Off-line search engine
eDLTV Content

- Contents comprising video of classroom teaching, presentation slides, lecture notes, quizzes, etc.
- Other educational contents collected from various sources

Size of content ~ 1 TB
- Lower secondary (M1-M3) ~ 400 GB
- Upper secondary (M4-M6) ~ 450 GB
Usage Type 1: eDLTV Server

- Server:
  - CPU 2.0GHz, RAM 2GB,
  - HD approx. 1 TB
- LAN, PC client
- Projector / TVout
Usage Type 2: External Harddisk

- External HD
- PC client
- Projector / TVout

ราคา 1,000 – 2,000 บาท
Usage Type 3: On-line

at http://www.edltv.thai.net
Examples of Achievements
Some Key Performance Indicators Monitored

- No. students entering into higher education in ICT fields (> 300 during the past three years)
- No. of students/teachers receiving awards in provincial/regional/national ICT competition (> 180 awards received in the past three years)
Mr. Ekasit Luechairam
from Suksa Songkroh Thawatburi, Roi-et

His house and his family
Mr. Ekasit Luechairam
from Suksa Songkroh Thawatburi, Roi-et

Won the first prize for two consecutive years in the Olympics Math & Science Competition, section computer.
Mr. Ekasit Luechairam
from Suksa Songkroh Thawatburi, Roi-et

Graduated with B. Eng. in Computer Sciences from Khonkaen University in 2007 and now work as a programmer in a US IT company.
Students entered in computer competition among schools
Rajchaprachanukroh 29 School, Srisaket Province

Maintenance services

Vocational Training
Rajchaprachanukroh 29 School, Srisaket Province

Sisters teach sisters

Teach computers to other schools in community
Various Activities by Students Computer Club
Awards received in homepage and CAI competition
Suksa Songkroh Amnajchareon

Provide computer training for people both in and outside school
Suksa Songkroh Thawatburi, Roi-et

Students participated and won the prizes in various competition programs
In Summary...

• The development work is based on scientific research and first-hand knowledge of the landscape and culture

• Take into account local conditions and specific needs and proceed according to the sustainable principle ....

• Development-oriented approach, not technology-led approach
Final Remarks: Critical Success Factors in utilizing ICT in Education

- Knowledge and skills on ICT of teachers
- Educational resources and materials
- Curriculum and process
- Teachers’ development
- Support from administrators
- Good Teamwork (between computer teachers and subject matter teachers)
- And Finally….A dedicated “champion”!!
Thank You

www.princess-it.org
www.nectec.or.th