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ICT for Teacher Training

Jonghwi Park
ICT in Education, UNESCO Bangkok

10 November 2016
Outline

• Teachers and ICT
• Competency-based ICT teacher training
• Cases
  - Australia
  - Korea
  - Singapore
  - China
• Q&A
Teachers and ICT
Investigated four “mysteriously” high performing countries
• Finland, South Korea, Poland

Common key factors?
• Spending per pupil
• Technology
• Class size
• Teachers, teachers, teachers.
• Raise the expectations for what kids could accomplish (Inject rigor to the system!!)

Teachers over Technologies
Computers aren’t magic, but teachers are.

Nothing can substitute for a good teacher*.

* UNESCO Director-General Irina Bokova, in her opening remark at Asia Pacific Ministerial Forum on ICT in Education, 2012

**Craig R. Barrett, Former CEO, Intel Corporation.
Top 3 actions needed to assist teachers to be the teachers for the future we want

<table>
<thead>
<tr>
<th>Action</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct continuous professional development</td>
<td>350</td>
</tr>
<tr>
<td>Provide quality initial teacher education and training</td>
<td>300</td>
</tr>
<tr>
<td>Provide competitive salaries and benefits</td>
<td>250</td>
</tr>
<tr>
<td>Strengthen school leadership and management</td>
<td>200</td>
</tr>
<tr>
<td>Improve school facilities and resources</td>
<td>150</td>
</tr>
<tr>
<td>Develop clear teacher qualification standards</td>
<td>100</td>
</tr>
<tr>
<td>Provide clear career pathways for teaching personnel</td>
<td>50</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0</td>
</tr>
</tbody>
</table>

By 418 respondents from the 17th UNESCO APEID Conference 2014
Conditions for Innovative Teaching

- From ITL Research (2011) investigating schools in 7 countries (http://www.itlresearch.com/)

Three common conditions:

- Teacher Collaboration & Peer Support
- Engaging Practice-Oriented Training
Summary

• Teachers are the key to successful ICT integration in education.

• Kinds of support teachers need are:
  • Not one time lecture-based training;
  • But a long-term systematic professional development
  • that can create collaborative environments and school culture.
Competency-based ICT teacher training

Why?
Is this story familiar to you? (1)

Intel®
Teach
Program

Microsoft®
Partners in Learning

Capacity Building Workshop on Project-Based Learning and Telecollaboration
August 9-12, 2010, East China Normal University, Shanghai, China

Facilitating Effective ICT-Pedagogy Integration Project
Funded by Korean-Funds-In-Trust (KFIT)
Teacher training providers

According to a review of 16 Member States in SEA and EA countries in 2013:

### Pre-service Training Provider (N=16)
- National TTC, NIE: 11
- University (TEI): 5

### In-service Training Provider (N=16)
- Local Gov: 5
- Local Gov + NGO: 1
- Local Gov + Priv: 7
- NA: 2
- NGO: 1

- National TTC, NIE
- University (TEI)
Is this story familiar to you? (1)

- One time course
- The same group of teachers taking similar courses repeatedly
- Only the number of hours matters.
- No monitoring and evaluation
Is this story familiar to you? (2)

Visions in Education

- Basic Education
- Knowledge acquisition
- Knowledge deepening
- Knowledge creation

Your Teacher Development Curriculum in Reality

- The history of computers
- How to connect hardware
- How to use productivity tools

Your policy vision is here
Australian Case

Promoting Teacher Quality:
Mechanisms and Standards for Teacher Quality Assurance
Competency-based ICT teacher training

What?
What is competency-based teacher training?

- Guiding competency standards
- Systematic Teacher professional development
  - Supporting curriculum
  - Monitoring and qualification
What is competency?

- Combination of **knowledge, skills and attitudes** that an individual needs to have and use at work, school or other working environments.
Domain, Standards and Indicators

Domain

Competency standards 1

Performance Indicator 1-1

PI-1-2

CS-2

PI-2-1
Competency-based ICT teacher training

How?
Suggested procedure

1. Prep:
   • Mapping your national goals with existing teacher training
   • Teacher and school readiness assessment
   • Framework study

2. Competency standards development

3. Teacher Curriculum development

4. Assessment system development

5. Pilot

6. Implementation

7. Monitoring and evaluation
<table>
<thead>
<tr>
<th>Country</th>
<th>Education Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>• Australian schooling promotes equity and excellence; and&lt;br&gt;• Young Australians become successful learners, confident and creative individuals, and active and informed citizens. <em>(Melbourne Declaration (2008))</em></td>
</tr>
<tr>
<td>Korea</td>
<td>• Transformination from traditional learning into 21st century learning <em>(SMART (Self-directed, Motivated, Adaptive, Resource-enriched, and Technology-embedded) Education initiative (2011); complemented with ICT use in education master plan)</em></td>
</tr>
<tr>
<td>China</td>
<td>• Modernization of education; focus on people development, comprehensive quality education, with a drive for innovation and problem-solving skills <em>(National Medium and Long Term Educational Reform and Development Plan (2010-2020))</em></td>
</tr>
<tr>
<td>Tanzania</td>
<td>• Increase in youth literacy &amp; GER, inclusive &amp; quality education, sufficient teacher professional development <em>(PEDP (Primary Education Development Plan; 2001) and SEDP (Secondary Education Development Plan; 2004))</em></td>
</tr>
</tbody>
</table>
## Australia

- Young Australians become successful learners, confident and creative individuals, and active and informed citizens

<table>
<thead>
<tr>
<th>Career Stage</th>
<th>Focus Area 2.6: Information and Communication Technology (ICT)</th>
<th>Focus Area 3.4: Select and use resources</th>
<th>Focus Area 4.5: Use ICT safely, responsibly and ethically</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate</td>
<td>Implement teaching strategies for using ICT <strong>to expand curriculum learning opportunities</strong> for students.</td>
<td>Demonstrate knowledge of a range of resources, including ICT, that <strong>engage students in their learning.</strong></td>
<td>Demonstrate an understanding of the relevant issues and the strategies available <strong>to support the safe, responsible and ethical use of ICT in learning and teaching.</strong></td>
</tr>
</tbody>
</table>
Korea
• Becoming a people powered nation: Transformation from traditional learning into 21st century learning – SMART Education Strategies

**Teacher Competencies for SMART Education:** 13 Competencies, 61 Indicators

Defined as “traits required for teachers who perform effective education to promote key competencies of 21st-century learners and to achieve educational innovation toward future education”

- **Foundations (6)**
  - Personal attributes fundamental to practice of SMART education
    - Creative problem-solving
    - Social ability
    - Flexibility
    - Technology literacy
    - Ethics
    - Passion

- **Practice Competencies (7)**
  - Specific educational tasks and activities intended to implement SMART education
  - Understanding of future education
  - Contents expertise
  - Building rapport with learners
  - Instructional design & development
  - Building learning affordance
  - Evaluation and reflection
  - Building collaborative relationship with community
China

- Modernization of education; focus on people development, comprehensive quality education, with a drive for innovation and problem-solving skills (2004)

<table>
<thead>
<tr>
<th>DOMAINS</th>
<th>STANDARD AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness and Attitude</td>
<td>• Awareness of Educational Value of ICT</td>
</tr>
<tr>
<td></td>
<td>• Self-consciousness of using ICT</td>
</tr>
<tr>
<td></td>
<td>• Assessment and self-reflection</td>
</tr>
<tr>
<td></td>
<td>• Concepts of Lifelong Learning</td>
</tr>
<tr>
<td>Knowledge and skills</td>
<td>• Basic knowledge and Information</td>
</tr>
<tr>
<td></td>
<td>• Basic ICT skills</td>
</tr>
<tr>
<td>Implementation and Innovation</td>
<td>• Designing and implementing lessons</td>
</tr>
<tr>
<td></td>
<td>• ICT-supported teaching and management</td>
</tr>
<tr>
<td></td>
<td>• ICT-enhanced research and professional development</td>
</tr>
<tr>
<td></td>
<td>• ICT-mediated communication and collaboration</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>• Applying ICT equitably</td>
</tr>
<tr>
<td></td>
<td>• Applying ICT effectively</td>
</tr>
<tr>
<td></td>
<td>• Applying ICT appropriately</td>
</tr>
<tr>
<td></td>
<td>• Self-regulating practice</td>
</tr>
</tbody>
</table>
Frameworks

- UNESCO ICT Competency Standards for Teachers
- ISTE Framework
<table>
<thead>
<tr>
<th>Category</th>
<th>Technology Literacy</th>
<th>Knowledge Deepening</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding ICT in Education</td>
<td>Policy awareness</td>
<td>Policy understanding</td>
<td>Policy innovation</td>
</tr>
<tr>
<td>Curriculum and Assessment</td>
<td>Basic knowledge</td>
<td>Knowledge application</td>
<td>Knowledge society skills</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Integrate technology</td>
<td>Complex problem solving</td>
<td>Self management</td>
</tr>
<tr>
<td>ICT</td>
<td>Basic tools</td>
<td>Complex tools</td>
<td>Pervasive tools</td>
</tr>
<tr>
<td>Organization and Administration</td>
<td>Standard classroom</td>
<td>Collaborative groups</td>
<td>Learning organizations</td>
</tr>
<tr>
<td>Teacher Professional Learning</td>
<td>Digital literacy</td>
<td>Manage and guide</td>
<td>Teacher as model learner</td>
</tr>
</tbody>
</table>
Three Approaches

Six Areas (Domains) of Teachers’ Work

<table>
<thead>
<tr>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDERSTANDING ICT IN EDUCATION</td>
</tr>
<tr>
<td>CURRICULUM AND ASSESSMENT</td>
</tr>
<tr>
<td>PEDAGOGY</td>
</tr>
<tr>
<td>ICT</td>
</tr>
<tr>
<td>ORGANIZATION AND ADMINISTRATION</td>
</tr>
<tr>
<td>TEACHER PROFESSIONAL LEARNING</td>
</tr>
</tbody>
</table>
### THE FRAMEWORK

<table>
<thead>
<tr>
<th>Category</th>
<th>Technology Literacy</th>
<th>Knowledge Deepening</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding ICT in Education</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Curriculum and Assessment</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ICT</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Organization and Administration</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Teacher Professional Learning</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

18 modules
Tanzania

- Increase in youth literacy & GER, inclusive & quality education, sufficient teacher professional development

<table>
<thead>
<tr>
<th>UNESCO ICT CFT</th>
<th>Adapted for Tanzania</th>
<th>Sub domains for Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding ICT in Education</td>
<td>Policy</td>
<td>Policy awareness, Classroom practice</td>
</tr>
<tr>
<td>Curriculum &amp; Assessment</td>
<td>Curriculum &amp; Assessment</td>
<td>Curriculum planning, Learning environment, Student experience, Assessment, Communication &amp; Collaboration, Special needs</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Pedagogy</td>
<td>Planning, Problem-based learning, Student experience, Project-based learning, Communication &amp; Collaboration</td>
</tr>
<tr>
<td>ICT</td>
<td>ICT</td>
<td>Productivity tools, Authoring tools, Internet, Comm &amp; Coll., Admin, Educational SW</td>
</tr>
<tr>
<td>Organization &amp; Administration</td>
<td>Organization &amp; Management</td>
<td>Teacher understanding &amp; leadership, ICT integration, Classroom management, Appropriate use,</td>
</tr>
<tr>
<td>Teacher Professional Learning</td>
<td>Teacher Development</td>
<td>Planning, Teacher awareness &amp; participation, Informal learning</td>
</tr>
</tbody>
</table>
## ISTE Standard Framework

<table>
<thead>
<tr>
<th>Edition</th>
<th>Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; edition (1997)</td>
<td>• three domains, 18 indicators</td>
</tr>
<tr>
<td></td>
<td>• a. Basic Computer/Technology Operations and Concepts</td>
</tr>
<tr>
<td></td>
<td>• b. Personal and Professional Use of Technology</td>
</tr>
<tr>
<td></td>
<td>• c. Application of Technology in Instruction</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; edition (2004)</td>
<td>• six domains, 23 indicators</td>
</tr>
<tr>
<td></td>
<td>• a. Technology Operations and Concepts</td>
</tr>
<tr>
<td></td>
<td>• b. Planning and Designing Learning Environments and Experiences</td>
</tr>
<tr>
<td></td>
<td>• c. Teaching, Learning, and Curriculum</td>
</tr>
<tr>
<td></td>
<td>• d. Assessment and Evaluation</td>
</tr>
<tr>
<td></td>
<td>• e. Productivity and Professional Practice</td>
</tr>
<tr>
<td></td>
<td>• f. Social, Ethical, Legal, and Human Issues</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; edition (2008)</td>
<td>• five domains, 20 indicators</td>
</tr>
<tr>
<td></td>
<td>• a. Facilitate and Inspire Student Learning and Creativity</td>
</tr>
<tr>
<td></td>
<td>• b. Design and Develop Digital Age Learning Experiences and Assessments</td>
</tr>
<tr>
<td></td>
<td>• c. Model Digital Age Work and Learning</td>
</tr>
<tr>
<td></td>
<td>• d. Promote and Model Digital Citizenship and Responsibility</td>
</tr>
<tr>
<td></td>
<td>• e. Engage in Professional Growth and Leadership</td>
</tr>
</tbody>
</table>
ISTE Standard Framework

- Countries that localized and developed their own standards, adopting from the ISTE framework: Malaysia, Korea, Japan, Australia, the Philippines and more
- Also available for students and administrators (stemming from TSSA-Technology Standards for School Admin)
- For more info: http://www.iste.org/standards.aspx
## Diverse approaches

<table>
<thead>
<tr>
<th></th>
<th>Embedded</th>
<th>Stand-alone</th>
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</thead>
<tbody>
<tr>
<td>Adapted framework</td>
<td>Australia</td>
<td>Uzbekistan, China</td>
</tr>
<tr>
<td>Unique and national-specific</td>
<td>Singapore, Korea</td>
<td>Korea (previous)</td>
</tr>
</tbody>
</table>
Embedded and adapted framework

Australia
Teacher career ladder in AUS

**Initial Teacher Education**
- undergraduate programs (4 years)
- graduate entry program (12, 18 or 24 months)
- intensive programs with employer support

**Graduation**

**Teacher Registration**
- Graduate
- Proficient
- Highly Accomplished
- Lead
**Australian Professional Standards for Teachers (APST)**

**Education vision:** Young Australians become successful learners, confident and creative individuals, and active and informed citizens

<table>
<thead>
<tr>
<th>Domains of teaching</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Knowledge</td>
<td>1. Know students and how they learn</td>
</tr>
<tr>
<td></td>
<td>2. Know the content and how to teach it</td>
</tr>
<tr>
<td>Professional Practice</td>
<td>3. Plan for and implement effective teaching and learning</td>
</tr>
<tr>
<td></td>
<td>4. Create and maintain supportive and safe learning environments</td>
</tr>
<tr>
<td></td>
<td>5. Assess, provide feedback and report on student learning</td>
</tr>
<tr>
<td>Professional Engagement</td>
<td>6. Engage in professional learning</td>
</tr>
<tr>
<td></td>
<td>7. Engage professionally with colleagues, parents/carers and the community</td>
</tr>
<tr>
<td>APST</td>
<td>Std2: Know the Content and How to teach it</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>ICT-related Focus Areas</strong></td>
<td><strong>Focus Area 2.6: Information and Communication Technology (ICT)</strong></td>
</tr>
<tr>
<td><strong>Graduate</strong></td>
<td>Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.</td>
</tr>
<tr>
<td><strong>Proficient</strong></td>
<td>Use effective teaching strategies to integrate ICT into learning and teaching programs to make selected content relevant and meaningful.</td>
</tr>
<tr>
<td><strong>Highly Accomplished</strong></td>
<td>Model high-level teaching knowledge and skills and work with colleagues to use current ICT to improve their teaching practice and make content relevant and meaningful.</td>
</tr>
<tr>
<td><strong>Lead</strong></td>
<td>Lead and support colleagues within the school to select and use ICT with effective teaching strategies to expand learning opportunities and content knowledge for all students.</td>
</tr>
</tbody>
</table>
Autonomy and options

- **University A** has opted to develop dedicated semester-long ICT subjects
- **University B** has elected to cover the ICT elements of Program Accreditation Standard 1 as a cross-curriculum or embedded activity
- **University C**, has adopted a hybrid approach – It developed a core *Digital Learning* subject that asks students to critique and adopt appropriate pedagogical approaches using learning technologies to engage teenagers in authentic, active and collaborative learning and to investigate contemporary issues and current trends in ICT in education through an inquiry project.
Illustrations of Practice - by career stage

Illustrations of Practice showcase teaching practice from across Australia at the four career stages of the Australian Professional Standards for Teachers. The Illustrations include a range of different pedagogical approaches, and are not intended to be prescriptive or exhaustive. AITSL is grateful to the teachers who shared their authentic, illustrative and instructive practice. The career stage attributed to each Illustration reflects the content of the single lesson or sequence, and is not an assessment of the teacher’s overall level of practice.

Graduate

View all 38 >>

Who am I? puzzles
Creating wikis
Seeking professional learning

Proficient

View all 137 >>

Making money amounts
Team teaching moderation
Making connections in science

Highly Accomplished

View all 103 >>

Improved literacy outcomes
High expectations
Engaging parents and carers

Lead

View all 33 >>

Using the Standards
Creative online learning
Science and agriculture in special

Samples:

Embedded and unique (country-specific)

Korea
Forming a research team → Competency modeling of higher performers through interviews → Expert consultation

Validation by higher performers

Development of Teacher Competency Standards and PIs → Validation through survey

Finalize the competency standards
Sample results: Domains

Field practices
Specific educational tasks and activities intended to implement SMART education

Fundamentals
Personal characteristics which is the foundations for SMART education implementation
SMART competencies

- 2 domains, 13 competencies

<table>
<thead>
<tr>
<th>Foundations</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Creative problem solving</td>
<td>• Understanding future education</td>
</tr>
<tr>
<td>• Social ability</td>
<td>• Content expertise</td>
</tr>
<tr>
<td>• Flexibility</td>
<td>• Building relationship with learners</td>
</tr>
<tr>
<td>• Technology literacy</td>
<td>• Instructional design &amp; development</td>
</tr>
<tr>
<td>• Ethics</td>
<td>• Evaluation &amp; reflection</td>
</tr>
<tr>
<td>• Passion</td>
<td>• Building collaborative learning community</td>
</tr>
</tbody>
</table>
Competency based module design

Teacher Competencies

Fundamentals
- Creative problem-solving
- Social ability
- Flexibility
- Technology literacy
- Ethics
- Passion

Practice competencies
- Understanding of future education
- Contents expertise
- Building relationship with learners
- Instructional design & development
- Building learning affordance
- Evaluation & reflection
- Building collaborative relationship with community

Teacher Training Modules
1. Concept of future education & teacher's role
2. Concept of SMART education
3. Teacher competency for the practice of SMART education
4. Understanding 21C learner & strategies for promoting the competency
5. Participating in digital ecosystem
6. Class observing copyrights
7. Information & communications ethics
8. Smart lesson plan for digital native
9. Building rapport with learners through SMART education
10. Organize creative SMART education programs
11. Constitute primary theme-centered SMART curriculum
12. Curricular plan by SMART education level
13. Learning smart learning tools
14. SMART learning environment design
15. Collaborative learning design for communication
16. Learning design for lively experience
17. Self-directed intelligence-type customized learning design
18. Using digital textbooks
19. Immersing into the sea of SMART content
20. Comprehensive design for school SMART education system
21. SMART education design for outside the school
22. Features and methods of SMART education assessment
23. Learning process-centered evaluation for 21C competency
24. SMART education and on-site studies
25. Strategies for implementing and facilitating SMART lessons
26. Method of monitoring learning process
27. How to cope with problems in SMART class
28. Constant cultivation of expertise for SMART education
Embedded and unique (country-specific)

Singapore
Masterplan Development: Coherent Continuum

1997 Master Plan 1
- Building the Foundation
  - T&L Resources
  - ICT Skills for Teachers
  - ICT Infrastructure

2003 Master Plan 2
- Seeding Innovation
  - Innovation push: FS & Lead ICT schools
  - ICT Baseline tools
  - School-based ICT Plan

2009 Master Plan 3
- Strengthening & Scaling
  - Enriching and transforming the learning experiences through appropriate ICT integration
  - Professional development of teachers
  - Developing discerning and responsible ICT users
Teacher training in MP 1

• 30-hour training on:
  • Basic knowledge of PC and network
  • Office applications (Word, Powerpoint, Excel)
  • the use of Internet

• Mostly on how to digitize teacher-centric instructional materials
Teacher training in MP3

- Teacher Education for the 21st century (TE21)
- Aligned with values, skills and knowledge
Teacher training in MP 3

- Exemplary courses:
  - ICT for Meaningful Learning
  - Supporting Self-directed Collaborative Learning with ICT
ICT for Meaningful Learning

• The 3rd Singapore ICT Masterplan focuses on self-directed and collaborative learning with ICT

• NIE adopted the Technological Pedagogical and Content Knowledge (TPACK) framework to build and research preservice and in-service teachers’ TPACK through design-based learning

• This case describes the approach and report the preservice teachers’ perception and performance

• Sample syllabus
Adapted framework and stand-alone

China
General procedures

1. Needs assessment & situational analysis
2. Researching and reviewing existing frameworks
3. Prioritizing domains and competencies
4. Developing performance indicators and assessment
5. Validation & evaluation of the identified competencies & PIs
6. Curriculum development or Accreditation system
Modernization of education; focus on people development, comprehensive quality education, with a drive for innovation and problem-solving skills (2004)

<table>
<thead>
<tr>
<th>DOMAINS</th>
<th>STANDARD AREAS</th>
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</table>
| Awareness and Attitude       | • Awareness of Educational Value of ICT  
|                              | • Self-consciousness of using ICT  
|                              | • Assessment and self-reflection  
|                              | • Concepts of Lifelong Learning                                                |
| Knowledge and skills         | • Basic knowledge and Information  
|                              | • Basic ICT skills                                                            |
| Implementation and Innovation| • Designing and implementing lessons  
|                              | • ICT-supported teaching and management  
|                              | • ICT-enhanced research and professional development  
|                              | • ICT-mediated communication and collaboration                                 |
| Social Responsibility        | • Applying ICT equitably  
|                              | • Applying ICT effectively  
|                              | • Applying ICT appropriately  
|                              | • Self-regulating practice                                                    |
UNESCO Project

• Supporting Competency-based Teacher Training Reforms
• Duration: August 2013-July 2017 (48 months)
• Funding source: Korea Funds-in-Trust
• Beneficiary countries: Member States in AP with three pilot countries (Nepal, Uzbekistan, Philippines)
## Summary of Pilot Country Progress

<table>
<thead>
<tr>
<th></th>
<th>Uzbekistan</th>
<th>Nepal</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local implementing partner</strong></td>
<td>UNESCO Tashkent</td>
<td>UNESCO Kathmandu</td>
<td>SEAMEO INNOTECH</td>
</tr>
<tr>
<td><strong>Focus Area</strong></td>
<td>In-service teacher training</td>
<td>In-service teacher training</td>
<td>Pre-service teacher education</td>
</tr>
<tr>
<td><strong>Overall Professional Teacher Competency Standards</strong></td>
<td>None (for language teachers)</td>
<td>Endorsed in 2016 (new)</td>
<td>Existing, being reviewed and revised</td>
</tr>
<tr>
<td><strong>Approach taken</strong></td>
<td>Stand-alone ICT competency standards for teachers</td>
<td>ICT stream in overall teacher competency standards</td>
<td>ICT stream in overall teacher competency standards</td>
</tr>
<tr>
<td><strong>Status as of July 2016</strong></td>
<td>Competency AND curriculum endorsed</td>
<td>Draft competency under government review</td>
<td>Draft competency under review and public hearing</td>
</tr>
<tr>
<td><strong>Curriculum status</strong></td>
<td>2 modules (basic and advanced)</td>
<td>2 modules</td>
<td>TTL 1 (generic) TTL 2 (subject specific)</td>
</tr>
</tbody>
</table>
### Domains of each country

<table>
<thead>
<tr>
<th>UNESCO</th>
<th>Uzbekistan</th>
<th>Nepal</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding ICT in Ed</td>
<td>Understanding ICT in Ed</td>
<td>Knowledge and skill of ICT</td>
<td>Understanding ICT in Ed</td>
</tr>
<tr>
<td>Curriculum &amp; Assessment</td>
<td>Curriculum &amp; Assessment</td>
<td>Select and utilize ICT integrated teaching learning strategies</td>
<td>Curriculum &amp; Assessment</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Teaching practices</td>
<td>Develop and adapt digital learning materials</td>
<td>Pedagogy</td>
</tr>
<tr>
<td>Technology (ICT)</td>
<td>Hardware and software (ICT)</td>
<td>Promote effective communication and collaboration for learning</td>
<td>Technology tools</td>
</tr>
<tr>
<td>Organization &amp; Admin</td>
<td>Organization &amp; management</td>
<td>Assess learning and provide feedback</td>
<td>Organization &amp; Admin</td>
</tr>
<tr>
<td>Teacher professional learning</td>
<td>Professional development</td>
<td>Be aware on IT policy and contemporary digital culture and demonstrate in professional practices</td>
<td>Teacher Professional Learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Teacher Disposition</td>
</tr>
</tbody>
</table>
## Comparison

<table>
<thead>
<tr>
<th>Adapting from existing frameworks</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cost and time effective</td>
<td></td>
<td>• Might lack ownership</td>
</tr>
</tbody>
</table>
| Developing brand-new bespoke standards | • Maximize teachers involvement  
• Ownership |      | • Expensive and time-consuming  
• Technical expertise needed |
| Adding ICT on to teacher professional standards | • Compliance to general professional standards  
• More generic and open for creative implementation by teacher education institutions/providers | • Requires bigger autonomy of education institutions  
• relies on more advanced local universities and education institutions |
Thank You.

Jonghwi Park (j.park@unesco.org)
ICT in Education/ Asia Pacific Programme of Educational Innovation for Development (APEID)
UNESCO Bangkok
www.unescobkk.org/ict