The Philippine Experience
Supporting Competency-Based Teacher Training Reforms to Facilitate ICT-Pedagogy Integration

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Chair, Technical Panel For Teacher Education, CHED Philippines
1. Background
2. Findings from ICT teacher readiness assessment survey
3. Process and key players
4. Draft competency standards
5. Challenges and resolutions
6. Next steps
Background

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Background

- Unique to the Philippines: **Teacher Education Development Map**

![Diagram of Teacher Education and Development Map]
21ST-CENTURY PHILIPPINE TEACHER EDUCATION FRAMEWORK

PRE-SERVICE
- Non-TeD Program Graduates (PQF 6)
- TVET Graduates (PQF 3-5)
- Grade 12 Graduates (PQF 2)
- Experts w/o Baccalaureate Degrees (PQF 1-2)

IN-SERVICE
- K to 12
- CHED - DepEd - TESDA - PRC - CSC
- NCCA - PSC - Dole - Private Sector

CONTINUING PROFESSIONAL DEVELOPMENT
- PQF 8
- Post-doctoral
- Doctoral
- PQF 7
- PQF 6
- Post-baccalaureate

REGIONAL AND INTERNATIONAL CONTEXTS AND LINKAGES

EXPERIENTIAL AND FIELD-BASED LEARNING

COMMUNITY DEVELOPMENT AND TRANSFORMATION

CULTURAL - HISTORICAL ROOTEDNESS

21ST-CENTURY PHILIPPINE TEACHER EDUCATION FRAMEWORK
21st Century Teacher Education Curriculum Framework

The 21st Century Learner – at the heart of the teacher education curriculum

CHED – TEd 21st Program

Content Knowledge (Discipline)

K12, NCBTS, OBE, POF

Pedagogies ↔ Assessment

Experiential Field Practicum (FS & Practice Teaching)

21st Century Teacher/Global Teacher

VALUES

SKILLS

KNOWLEDGE

Aspiring Teachers, Pathway

TESDA

Partnerships

DepEd/School
Background

- Unique to the Philippines:
  The National Competency-Based Teacher Standards (NCBTS)

an integrated framework defining the different dimensions of effective teaching
**Background**

**Strand 4.7** Demonstrates skills in the use of ICT in teaching and learning

**Indicator 4.7.1** Utilizes ICT to enhance teaching and learning

**Competencies:** (At what level do I...)

173. Know the nature and operations of technology systems as they apply to teaching and learning?
174. Understand how ICT-based instructional materials/learning resources support teaching and learning?
175. Understand the process in planning and managing ICT-assisted instruction?
176. Design and develop new or modify existing digital and/or non-digital learning resources?
177. Use ICT resources for planning and designing teaching-learning activities?
178. Use ICT tools to process assessment and evaluation data and report results?
179. Demonstrate proficiency in the use of computer to support teaching and learning?
180. Use ICT tools and resources to improve efficiency and professional practice?
181. Value and practice social responsibility, ethical and legal use of ICT tools and resources?
182. Show positive attitude towards the use of ICT in keeping records of learners?
Background

- Pre-Service Teacher Education Subjects Related to ICT
  - General
    - Computer Education (3 units)
  - Professional
    - Educational Technology 1 (Ed Tech 1)
    - Educational Technology 2 (Ed Tech 2)
Objectives for Philippine implementation:

1. Review ICT competency standards incorporated in the NCBTS through the lens of UNESCO’s ICT Competency Framework for Teachers (ICT-CFT)

2. Integrate revised standards in official CHED documents related to undergraduate teacher education

3. Ensure ICT competency standards in the NCBTS are incorporated in the revised curricula for professional courses on Technology for Teaching and Learning at the pre-service/undergraduate level
Survey Findings

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Findings: Teacher Readiness Survey

- 42 questions covering various aspects of the Status of ICT Integration and ICT Teacher Readiness in the Philippines (Policy, ICT Infrastructure, ICT Skills, ICT-enhanced pedagogy, and ICT-Related Teacher Training, among others)

- administered through SEAMEO INNOTECH’s network of Teacher Education Institution (TEI) partners (CHED Centers of Excellence/Development) from June to August 2015

- 212 responses from private and public basic education institution teachers in 13 of the country’s 17 regions
Findings: Teacher Readiness Survey

- Need to make teachers more aware of national policies on ICT in education
- Schools provide Internet access and ICT support; teachers use personal devices.
- Increase in the use of ICTs; prevailing preference for analog/offline modes of teaching
- Need for more teacher training on creating multimedia resources and ICT-enhanced innovative pedagogy
Process and Key Players

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Process and Key Players

- **Main Proponents**
  - UNESCO Bangkok ICT in Education Office
  - CHED’s Office of Program Standards and Development
  - CHED Task Force on UNESCO’s ICT Integration Project
    - CHED Technical Panel for Teacher Education
    - CHED Technical Panel for Information Technology Education
  - SEAMEO INNOTECH

- **Key Stakeholders**
  - Teacher Education Institution (TEI) representatives
  - DepEd, PNU-RCTQ, UNACOM, etc.
Process and Key Players

Key Steps

- **Workshop 1**: Review and enhance ICT competencies within NCBTS vis-à-vis other existing local and international teacher competency frameworks (NICS for Teachers, ICT-CFT)
- **Workshop 2**: Finalize ICT competency standards for integration into official CHED documents related to undergraduate teacher education curriculum
**1st National Workshop on Supporting Competency-Based Teacher-Training Reforms to Facilitate ICT-Pedagogy Integration**

1. review national education policy goals, identify the impact on the pre-service teacher education curriculum, and identify gaps in current pre-service teacher education and training

2. map the ICT-related provisions in the NCBTS-TSNA against the ICT-CFT and identify gaps in the current NCBTS

3. draft recommendations for consideration and incorporation to CHED’s CMO on ICT Competency Standards for Pre-Service Teacher Education
## Understanding ICT in Education

**ICT-CFT**: Understand how ICT-based instructional materials / learning resources support teaching and learning

**PROPOSED IMPROVED PIs**: Describe the nature and operations of ICT systems; Explain how ICT systems are applied in teaching and learning process.

**RECOMMENDATIONS**: Alignment of knowledge awareness, understanding and practice

## Curriculum & Assessment

**ICT-CFT**: Use ICT resources for planning and designing teaching-learning activities

**ICBTS**: Use ICT tools to process assessment and evaluation data and report results

**PROPOSED IMPROVED PIs**: Apply appropriate ICT tools in assessing, evaluating and reporting students’ learning.

**RECOMMENDATIONS**: Faculty in service training on how to construct ICT based assessment; Ensure that ICT expertise will be part of the teachers’ evaluation
Process and Key Players

**Follow-up Writeshop**

1. process recommendations from previous workshop and get consensus on where the proposed competencies and the ICT-CFT domains and approaches meet
2. determine whether ICT competency is a must-have for pre-service TE graduates or an advanced competency
3. break down competencies into doable, observable and measurable performance indicators
Process and Key Players

- **Follow-up Writeshop**
  4. finalize ICT competency standards for either option
     - Issue a stand-alone CMO on ICT Competency Standards for Pre-Service Teacher Education
     - Include the ICT competency standards as an annex to the CHED Memorandum Order (CMO) on the Policies, Standards and Guidelines (PSGs) for Undergraduate Teacher Education (TE)
  5. draft proposed program and course outcomes to operationalize standards
Draft Competency Standards

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Seven Proposed Domains

- Understanding ICT in Education
- Curriculum and Assessment
- Pedagogy
- Technology Tools
- Organization and Administration
- Teacher Professional Learning
- Teacher Disposition
## Draft Competency Standards

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>PERFORMANCE INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1: Understanding ICT in Education</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Demonstrate awareness of policies affecting ICT in education</td>
<td>1.1.1 Discuss national ICT policies affecting classroom practices</td>
</tr>
<tr>
<td>1.2 Comply with ICT policies as they affect teaching-learning</td>
<td>1.2.1 Implement ICT policies in teaching-learning</td>
</tr>
<tr>
<td>1.3 Contextualize ICT policies to the learning environment</td>
<td>1.3.1 Incorporate ICT policies in the design and implementation of teaching-learning activities.</td>
</tr>
</tbody>
</table>
## Domain 2: Curriculum and Assessment

<table>
<thead>
<tr>
<th>2.1 Demonstrate understanding of concepts, principles, and theories of ICT systems as they apply to teaching-learning</th>
<th>2.1.1 Discuss ICT concepts, principles and theories in various teaching-learning processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.2 Use technology tools in the assessment process</td>
<td></td>
</tr>
<tr>
<td>2.2.1 Evaluate digital and non-digital learning resources in response to student’s diverse needs</td>
<td>2.2.1.1 Select digital and non-digital learning resources in reference to the student learning preferences</td>
</tr>
<tr>
<td>2.2.1.2 Revise digital learning resources in response to varied needs of students</td>
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<tr>
<td>2.2.2 Develop digital learning resources to enhance teaching-learning</td>
<td>2.2.2.1 Produce digital learning material designed to enhance teaching-learning</td>
</tr>
<tr>
<td>2.3 Use ICT as a tool to develop 21st century skills: Information, Media and Technology Skills, Learning and Innovation Skills, Life and Career Skills, and Effective Communications Skills.</td>
<td>2.3.1 Integrate ICT in teaching plans that require learners to connect the content of the lesson to society</td>
</tr>
</tbody>
</table>
## Draft Competency Standards

### Domain 3: Pedagogy

<table>
<thead>
<tr>
<th>3.1 Apply relevant technology tools for classroom activities</th>
<th>3.1.1 Design a technology-enhanced lesson to support learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.1.2 Deliver the lesson using appropriate digital tools or applications</td>
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<td>3.1.3 Assist students to reflect on their own learning using technology tools</td>
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<tr>
<td>3.2 Use ICT knowledge to solve complex problems and support student collaborative activities</td>
<td>3.2.1 Use varied teaching strategies like project-based learning that integrate technology tools to support thinking and collaboration</td>
</tr>
<tr>
<td>3.3 Model collaborative knowledge construction in face-to-face and virtual environments</td>
<td>3.3.1 Initiate flexible learning through online communications (synchronous / asynchronous modality)</td>
</tr>
</tbody>
</table>
## Domain 4: Technology Tools

<table>
<thead>
<tr>
<th>4.1 Demonstrate competence in the technical operations of technology tools and systems as they apply to teaching and learning</th>
<th>4.1.1 Perform basic trouble shooting and maintenance of technology tools and systems;</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>4.1.2 Use productivity and other tools in everyday work.</td>
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</table>

<table>
<thead>
<tr>
<th>4.2.1 Use technology tools to create new learning opportunities to support communities of learners</th>
<th>4.2.1.1 Make technology tools-based instructional materials to improve student learning;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.2.1.2 Produce ICT-based teaching and learning tools in collaboration with students.</td>
</tr>
</tbody>
</table>

<p>| 4.2.2 Demonstrate proficiency in the use of technology tools to support teaching and learning | 4.2.2.1 Propose or recommend technology and policy innovations related to promoting continuous learning among students |</p>
<table>
<thead>
<tr>
<th>Domain 5: Organization and Administration</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>5.1 Manage technology-assisted instruction in an inclusive classroom environment</td>
<td>5.1.1 Facilitate flexible learning environment that enhances collaboration with the use of technology tools.</td>
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<tr>
<td>5.2 Exhibit leadership in shared decision-making using technology tools</td>
<td>5.2.1 Lead group activities using technology tools.</td>
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</table>
## Domain 6: Teacher Professional Learning

<table>
<thead>
<tr>
<th>6.1.1 Explore existing and emerging technology to acquire additional content and pedagogical knowledge.</th>
<th>6.1.1.1 Use technology tools to search for, manage, analyze, integrate and evaluate information that can be used to support professional learning</th>
</tr>
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<tbody>
<tr>
<td>6.1.1.2 Evaluate technology resources in terms of appropriateness, quality, usability, accessibility, and cost effectiveness.</td>
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<tr>
<td>6.1.2 Utilize technology tools in creating communities of practice</td>
<td>6.1.2.1 Use technology tools to collaborate and share resources among communities of practice</td>
</tr>
<tr>
<td>6.2.1 Collaborate with peers, colleagues and stakeholders to access information in support of professional learning.</td>
<td>6.2.1.1 Identify educational sites and portals suitable to their subject area</td>
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<tr>
<td>6.2.1.2 Join online expert and learning communities</td>
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<td>6.2.1.3 Use resources from relevant mailing lists and online journals</td>
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<tr>
<td>6.2.1.4 Evaluate and compare useful and credible web resources to be shared with other students</td>
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<tr>
<td>6.2.1.5 Active membership to local and global learning communities to maintain access to creative applications of technology that help enhance student learning</td>
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<tr>
<td>Domain 7: Teacher Disposition</td>
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<tr>
<td>7.1.1  Demonstrate social, ethical, and legal responsibility in the use of technology tools and resources</td>
<td>7.1.1.1  Discuss safety issues in obtaining resource materials from local area network-based and the internet</td>
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<td></td>
<td>7.1.1.2  Comply with intellectual property laws including the fair use of educational content</td>
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<td>7.1.1.3  Institute mechanisms to ensure child online safety and prevent cyberbullying</td>
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<tr>
<td>7.1.2  Show positive attitude towards the use of technology tools</td>
<td>7.1.2.1  Practice standard netiquette in sharing and utilizing shared materials among learning communities.</td>
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<td></td>
<td>7.1.2.2  Provide support to learners’ digital culture and behaviors.</td>
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<td></td>
<td>7.1.2.3  Utilize smart devices for building the positive relationships between teachers and students.</td>
</tr>
</tbody>
</table>
Operationalizing the Standards

Teacher Education Program Outcomes with Inclusion of ICT:

1. Articulate the relationship of education to larger historical, social, cultural and political processes.
2. Facilitate learning using a wide range of teaching methodologies in various types of environment.
3. Develop alternative teaching approaches for diverse learners.
4. Apply skills in curriculum development, lesson planning, materials development, instructional delivery and educational assessment.
5. Demonstrate proficiency in the development and utilization of ICT resources in promoting quality (pedagogy) teaching-learning process.
6. Demonstrate basic and higher levels of thinking skills in planning, assessing and reporting.
7. Practice professional and ethical teaching standards.
8. Pursue lifelong learning for personal and professional growth.
Operationalizing the Standards

- **Proposed Course Outcomes**

**Technology for Teaching and Learning 1 (3 units)**

- Explain ICT policies and safety issues as they impact on the teaching-learning process
- Integrate media and technology in various content areas
- Apply learning theories and principles in the design and development of lessons through appropriate media and technologies for teaching learning
- Formulate teaching-learning experiences and assessment tasks using appropriate and innovative technologies
- Demonstrate social, ethical, and legal responsibility in the use of technology tools and resources.
Operationalizing the Standards

- Proposed Course Outcomes

Technology for Teaching and Learning 2 (3 units)
- Evaluate the relevance and appropriateness of digital and non-digital resources based on the learning context
- Produce learning resources using technology tools in various subject areas
- Use open-ended tools (such as word processing, spreadsheets, presentation software, and authoring tools) in subject specific application
- Develop project- and problem-based, collaborative activities using technology tools
- Use ICT to develop 21st Century Skills: Information, Media and Technology Skills, Learning and Innovation Skills.
- Use technology tools to collaborate and share resources among communities of practice
Challenges and Resolutions

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Challenges and Resolutions

- Trifocalization of Education Administration
- Project Implementation amid Ongoing National Reforms
- Lengthy Process of Promulgation and Implementation of CHED CMOs
- Acknowledging Realities of Philippine Education
Next Steps

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Next Steps

1. Presentation of Proposed ICT Competency Standards to the CHED Technical Panel for Teacher Education (TPTE)

2. Secure approval from CHED Mancom and Commission en banc (CEB) to Conduct Public Hearings/Consultations on Revised PSGs for Undergraduate TE Programs

3. Conduct of Public Hearings

4. Submission of Proposed PSGs (with TP-TE Resolutions) to Mancom & CEB for Approval
Next Steps

5. Public Orientation

6. Syllabi and Module Writing

7. Revision and Finalization of Revised Syllabi and Modules

8. Dissemination of CHED Issuance to HEIs of Sample/Model Course Syllabi and Modules

9. Faculty Training Program for Teachers Handling ICT Courses in Teacher Education – to be Proposed as Part of CHED Faculty Development Project
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Thank you for your time and attention.