ICT for Skills Development in Mongolia

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ASTANA 2016
TVET structure of Mongolia

- National Council for Vocational Education and Training
- Ministry of Labour TVET Policy Coordination Department
- Assessment and Information Center (AIC)
- Regional Methodology Centers (6 RMCs)

State owned TVET schools (49)
Private TVET schools (32)
TVET providers in Mongolia

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>All TVET providers</td>
<td>71</td>
<td>78</td>
<td>79</td>
<td>76</td>
<td>81</td>
</tr>
<tr>
<td>State-owned TVET providers</td>
<td>49</td>
<td>50</td>
<td>53</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>Private TVET providers</td>
<td>22</td>
<td>28</td>
<td>26</td>
<td>24</td>
<td>32</td>
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</tbody>
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- # of students: 44173
- # of students: 32842
- # of students: 11331

All TVET staff:
- Management level staff: 4520
- TVET teachers: 36%
- Service staffs: 10%
- All TVET staff: 55%
- All TVET staff: 35%
## National Qualifications’ Framework of Mongolia

- Achieving prosperity through lifelong learning
- Recognizing all learning both local and international
- Recognizable and credible qualifications (that are accepted in locally and internationally)

<table>
<thead>
<tr>
<th>NQF: level</th>
<th>Level descriptor</th>
<th>Qualifications</th>
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<tbody>
<tr>
<td>10</td>
<td>Doctorate</td>
<td>Doctoral degree</td>
</tr>
<tr>
<td>9</td>
<td>Master’s</td>
<td>Masters’s degree; Specialist professional qualifications</td>
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<tr>
<td>8</td>
<td>Bachelor</td>
<td>Bachelor’s degree, professional qualification, <strong>Technical Diploma VI</strong></td>
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<tr>
<td>7</td>
<td>Advanced Diploma</td>
<td>Higher education diploma, Foundation degree, <strong>Technical Diploma V</strong></td>
</tr>
<tr>
<td>6</td>
<td>Diploma</td>
<td>Higher education certificate, Para-professional qualification, <strong>Technical Diploma IV</strong></td>
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<tr>
<td>5</td>
<td>Post-higher</td>
<td>Post school qualification, Advanced VOC qualification, <strong>Certificate III</strong></td>
</tr>
<tr>
<td>4</td>
<td>Higher</td>
<td>Senior school exit qualification, <strong>Certificate II</strong></td>
</tr>
<tr>
<td>3</td>
<td>Inter-mEDIATE</td>
<td>Secondary general Education, General education (VET), <strong>Certificate I</strong></td>
</tr>
<tr>
<td>2</td>
<td>Foundation</td>
<td>Primary school education , Basic education</td>
</tr>
<tr>
<td>1</td>
<td>Access</td>
<td>Basic numeracy and literacy, living in society</td>
</tr>
</tbody>
</table>
Top challenges and mitigation

- Mobilize existing resources: Prepared 30 Multimedia teachers and 10 Multimedia studios
- ICT based research tools to collect, analyze and report information and data in order to save time and money
- TVET Financing become to Activity Based Costing and create national database, funding and testing based on computer model

- Create database to accommodate assessment tools that will be accessible to public
- ICT based assessment tools for learners, especially self-directed
- Introduce ICT based QA system focusing on web based Self-Assessment tools for Institution and Program

- Introduce success of TVET providers and graduates, for example through schools’ and employers web pages
- Computer and/or mobile based application, social network could be used as tools to study public perception on TVET
- Attract graduates of secondary school
- Increase information and communication between TVET providers and employers, in order to increase employers’ involvement
National TVET Development Program 2016-2021

• Define list of the necessary databases to be used in TVET sector including their content and scope by 2016;

• Develop AIC as knowledge and information sharing hub and accommodate necessary ICT tools and databases:
  – Develop AIC portal page, by 2017
  – Competence database; expected at least 40 disciplines CBT curriculum, competence modules and assessment tools will be located, 2018-2021;
  – Database on qualification of graduates and individuals

• Develop online and blended learning curriculum by 2017 - exemplary online/blended learning in OSH
Top barriers integrating ICT in TVET

- **Barriers**
  - Lack of experience in development of ICT infrastructure
  - Lack of ICT based facilities at school level
  - Limited capacity to use ICT for teaching, learning and evidence based decisions (data collection, analysis and research)

- **Solutions**
  - Increase investment into ICT based infrastructure
  - Capacity building activities for TVET teachers and researchers in use of ICT
  - Adopt existing international best practices and ICT system/solutions into Mongolian TVET systems
  - Introduce latest ICT based technology for data collection and analysis and research
  - Increase use of professional software/programs into the teaching and learning
National initiative undertaken to help improve the TVET system using ICT

Introduced E-Learning into TVET
MCA-Mongolia /2011-2015/

Activities
- Audio, Video & Multimedia studio
- Online conference room
- 30 Multimedia teachers

10 TVET providers
- NLRC
- 6 RMCs
- 3 Center of Excellence

Impact and Outputs
- Trained 30 Multimedia teachers used as Trainee of trainers
- Use of Multimedia lessons is increased at school
- RMCs have capacity to organize multimedia training
- E-learning and Multimedia competition held every year for teachers and students
- Some schools introduced e-learning database
- Share resources within the schools and sector
National initiative undertaken to help improve the TVET system using ICT

**Introduced ICT into learning**
Since 2013

**Activities**
- Introduced software/programming and simulators into teaching and learning
- welding, HMO simulators, CNC-lathe milling

**All TVET providers**
- Cover all TVET schools, by 2018

**Impact and Outputs**
- Schools widely use the simulators especially in HMO & Welding
- Reduces practical costs
- Attracts students
- Quality of learning is improved
- Assess own-self directly and react quickly
- Improved technical terminology in Mongolian and English
National initiative undertaken to help improve the TVET system using ICT

Introduced LMIS in TVET: e-TVET
Ministry of Labor /2014-2016/

Activities
- Introduced LMIS to all state owned TVET providers
- Appointed responsible persons in each school and trained

State owned 37 TVET providers
- Cover all TVET schools, by 2018

Impact and Outputs
- 134 Training managers, Internal monitoring specialists, IT and Statistic information staffs are trained
- Information sharing was easy and systematic
- Time and cost saving
- Ability to have unified information and data
- Statistical information collected by each school
THANK YOU FOR YOUR KIND ATTENTION!