

DET List

Supporting the selection of Digital Educational Technologies

This document describes requirements for digital educational technologies (DET) considered by a training programme for service engineers in Vietnam. The description is guided by selection criteria based on the “GIZ e-Training Guide and Toolkit for TVET and Energy Programmes”.

We hope that this approach may inspire other teams in the selection of cost-effective technologies to achieve their goals in their specific context. We invite you to share further examples and requirements that are relevant in the context of other programmes (contact: see e-Training Guide).

Technology (SW/HW/ connectivity)	Purpose/example (Why do we use technology? Is it effective?)	Preparation (E.g. e-content creation, customization, managing interfaces, assuring/regulation of data privacy and security, measures for inclusivity etc.)	Training & Support	Quality (See detailed criteria at the end of this document)	Estimated cost
Learning platform					
Moodle	Support of blended learning in classroom and individual self-directed learning Example: pilot course	<ul style="list-style-type: none"> ▪ Customize online and offline features ▪ Establish interface with CMP and OVR ▪ Upload existing e-content ▪ Create quizzes and assignments ▪ Create courses and classes, student data import ▪ Data analysis guidelines, data privacy statement ▪ Test all features with power users 	<ul style="list-style-type: none"> ▪ Teachers: teaching skills (Blended learning), coaching digital skills (course management etc.) ▪ Students: self-directed learning with DET, digital skills ▪ Business: Contributing multi-visual assignments from practical learning ▪ Industry: contributing audio-visual presentations of innovative technologies ▪ Administrative/technical staff: course management with OVR/CMP interface 	<ul style="list-style-type: none"> ▪ Usability ▪ Specs ▪ Support ▪ Product 	(See Toolkit, costing framework)
Atingi	(As with Moodle)	(As with Moodle)	(As with Moodle)	See Atingi	

Technology	Purpose/example	Preparation	Training & Support	Quality*	Cost
Virtual Reality					
VR/AR-Tool I: Soldematic (Seabery)	Prepare for practical handling, illustrating, and explaining work context e.g.: Welding Lilama 2	<ul style="list-style-type: none"> ▪ Prepare assignments and integrate them in Moodle for learning in different settings ▪ Design assignments for use without the goggles. 	<ul style="list-style-type: none"> ▪ Teaching/coaching with VR (school management, learning/ teaching methods) 		
Social mobile media					
Smart phones	Reading/watching learning content, assignments, exams, feedback etc. – in different settings: class, practice, individual learning	<ul style="list-style-type: none"> ▪ Establishing clear guidelines to ensure effective and inclusive use in class and in practice (peer learning, providing devices on campus etc.) 	<ul style="list-style-type: none"> ▪ Teachers: use in plenary, coaching peer learning and self-directed learning ▪ Students: compliance with regulations, effective self-directed learning strategies and 	Moodle requirements: Android 5.1 or higher Memory (depending on e-content)	
Social Media	Support communication between students and trainers (e.g. questions, exercised, coaching, assessment)	<ul style="list-style-type: none"> ▪ Creating online spaces ▪ Guide for online documentation, reflection, and coaching ▪ Guide for netiquette, data protection and privacy regulations 	<ul style="list-style-type: none"> ▪ Teachers: use in practice, onsite and online coaching ▪ Students: compliance with netiquette, regulations, effective self-directed learning strategies 		

Technology	Purpose/example	Preparation	Training & Support	Quality	Cost
e-content production					
PowerPoint	Low-threshold production of animated presentation, e.g. by teachers	- (installed and in use in colleges)	<ul style="list-style-type: none"> ▪ Recording with PPT, ▪ upload to Moodle, systematic presentation, ▪ integration in assignments 		
MS Teams Zoom	Low-threshold e-content production, based on meetings with presentations and discussions	<ul style="list-style-type: none"> ▪ Negotiate licencing model for partner institutions 	<ul style="list-style-type: none"> ▪ Design of instructional meetings with targeted presentations and facilitation of interviews or group discussions ▪ Recording ▪ Upload to Moodle, systematic presentation, ▪ integration in assignments 		
Video equipment: video recorder, ext. micro, tripod	High-quality e-content production	<ul style="list-style-type: none"> ▪ Selecting skilled teachers/ industry experts 	<ul style="list-style-type: none"> ▪ One teacher with experience as power-user ▪ Design of different instructional formats, ▪ Presentation techniques ▪ Recording 		
Adobe Captivate, Articulate Storyline 3, mixer soundcraft, Vmix	(s. above)	<ul style="list-style-type: none"> ▪ Install and maintain software 	<ul style="list-style-type: none"> ▪ User training (editing, publishing) 		

Technology	Purpose/example	Preparation	Training & Support	Quality	Cost
Connectivity					
Mobile network	<ul style="list-style-type: none"> Enabling students access to Moodle and supporting practical learning outside of campus 	<ul style="list-style-type: none"> Negotiate an offer with data providers Develop regulation to support practice and individual learning 	<ul style="list-style-type: none"> Teachers and admin staff: handling bundle offers Students: how to handle internet access 		
WLAN	<ul style="list-style-type: none"> Connecting all classrooms and workshops on campus 	<ul style="list-style-type: none"> Testing existing coverage 	(-)		

General quality criteria, to be evaluated based on product documentation, reviews, and word-of-mouth for pre-selection of technologies. For the phase of contracting based on interviews, presentations, and thorough examination of provider data):

- Usability, user friendliness for students and teachers
- Technical specifications (server capacity, specifications of interoperability etc.)
- Software support (quality of support service/community)
- Product reviews, assessment of the provider company or community

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