



Teacher training and usage of ICT in education

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Definition of ICT-qualified

THE UNESCO ICT COMPETENCY FRAMEWORK FOR TEACHERS

	TECHNOLOGY LITERACY	KNOWLEDGE DEEPENING	KNOWLEDGE CREATION
UNDERSTANDING ICT IN EDUCATION	Policy awareness	Policy understanding	Policy innovation
CURRICULUM AND ASSESSMENT	Basic knowledge	Knowledge application	Knowledge society skills
PEDAGOGY	Integrate technology	Complex problem solving	Self management
ICT	Basic tools	Complex tools	Pervasive tools
ORGANIZATION AND ADMINISTRATION	Standard classroom	Collaborative groups	Learning organizations
TEACHER PROFESSIONAL LEARNING	Digital literacy	Manage and guide	Teacher as model learner



Professional development

- ED8 Proportion of ICT-qualified teachers in primary and secondary schools;
- ED35 Proportion of primary and secondary-school teachers trained via ICT-enabled distance education programmes;
- ED36 Proportion of primary and secondary-school teachers who teach basic computer skills;
- ED37 Proportion of primary and secondary-school teachers who currently teach subject(s) using ICT facilities;
- ED38 Proportion of primary and secondary-school teachers trained to teach subject(s) using ICT facilities;
- ED39 Ratio of learners-to-teachers of basic computer skills;
- ED40 Ratio of learners-to-teachers using ICT to teach.



Professional development

Pre-service versus in-service training

- More initiatives related to in-service training;
- More training on computer literacy (using ICTs).





Professional development

Professional development in specific subject areas using ICTs

- Science and mathematics;
- Literacy and numeracy.



Professional development

Training of teachers using ICT-enabled distance education

- Low-uptake of ICT-enabled distance education among teachers;
- Current practices and trends.



The screenshot shows the Moodle course page for the Kenyan ICT CFT Course. At the top, a black header bar contains the course title "Kenyan ICT CFT Course" and a user status message "You are not logged in. (Log in)". Below the header, the page is divided into several sections:

- Calendar:** A calendar for December 2014, showing dates from 1 to 31.
- Navigation:** A menu with "Home" and "Courses" options.
- Online users:** A section indicating "None" users are online (last 5 minutes).
- Courses:** A list of course sections:
 - Kenyan ICT CFT Course (expanded)
 - Course Orientation
 - Prospective Participants Pre-Test & e-Readiness Survey
 - Orientation Workshop Programme & Resources
 - Theme A: ICT in Education
 - Introduction to ICT in Education Theme
 - Unit 1: Policy Understanding
 - Theme B: Curriculum and Assessment



Professional development

Proposed indicators

- ICT-qualified teachers to adapt technologies to existing classroom practices (*digital literacy*) – pre-service and/or in service;
- ICT-qualified teachers to improve learning and teaching through effective use of ICT (*knowledge deepening*) - pre-service and/or in service;
- ICT-qualified teachers to transform the education paradigm (*knowledge creation*) - pre-service and/or in service;
- Codified teacher training competencies used to consider teachers as ICT-qualified.

Other conceptual domains

Policy

- How does the ICT in Education regulatory/policy framework recognize the importance of Teacher Training and what options are prescribed?
- Is ICT enabled defined in the policy?
- *Indicators:*
 - ICT in Education national policy, plan or regulatory mechanism recognizing Teacher Training;
 - Proportion of teachers having met minimum qualifications through different types of teacher training, duration, frequency or retraining.



Other conceptual domains

Pedagogy

- Training of teachers should reflect the uses of ICTs, where possible to obtain certain pedagogical objectives;
- Use of ICTs for teaching people living with disabilities;
- Indicators:
 - The type of use of ICT as a pedagogical tool:
 - searching the internet;
 - chatting online;
 - Learning games/ video games;
 - Simulation;
 - Exercise software;
 - using computers to conduct experiments;
 - The introduction of ICT as a pedagogical tool in pre-service and in-service training;
 - Experience in using ICT in school and in private time during the past 12 months (teachers who use ICT to prepare lesson plans, teachers who used ICT in the class room more than 50% , 25%, etc);
 - The use of assistive technologies to enhance teaching and learning for learners living with disabilities.

Other conceptual domains

Curriculum development

- The explicit mention of curriculum and assessment by teachers through ICTs absent from indicators;
- Open Education Resources (OER) and how do teachers use OERs;
- Indicators:
 - Proportion of primary and secondary-school teachers who currently use digital curriculum and assessment (what is taught);
 - Proportion of primary and secondary-school teachers who received skills training to make use of ICT enabled curriculum and assessment.





Other conceptual domains

ICT infrastructure

- Incentives for teachers to use ICTs influence their actual use of ICTs in the classroom;
- Access to ICTs and Internet, outside the classroom;
- Indicators:
 - Availability of ICT tools at school (Desktop computer; Laptop, Tablet or other mobile device, Printer, USB (memory) stick, Interactive whiteboard, E-book reader);
 - Availability of ICT tools outside the school environment (Desktop computer, Laptop, Tablet or other mobile device, Printer, USB (memory) stick, Interactive whiteboard, E-book reader);
 - Proportion of teachers accessing the Internet by type (Any type of internet access, Fixed narrowband Internet access, Fixed broadband Internet access, Both fixed narrowband and broadband internet access);
 - Proportion of schools using mobile devices;
 - Frequency and duration of ICT activities performed by teachers in school and in private time;
 - Incentives used to reward teachers using ICT.





Other conceptual domains

ICT and administration

- Teachers' extended role to contribute towards the smooth running of the administrative processes of the school;
- Dealing with the classroom by integrating ICTs;
- Indicators:
 - Proportion of primary and secondary-school teachers trained to perform school organizational and administrative processes using ICT.





Gender

- The collection of data on teacher training and usage of ICT in education and Gender;
- The impact of gender on ICT in education teacher training and usage.





Proposed indicators

- How to integrate the knowledge ladder and evolving nature of ICT in the classroom
- How to integrate the cross-cutting nature of teacher training and usage of ICT in education?
- What is the source of the information on the proposed indicators?



Thank you

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