QUESTIONNAIRE ON STATISTICS OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) IN EDUCATION

Academic year ending 2010 or latest year available

This questionnaire is designed to collect recent statistics in order to produce policy relevant indicators on key aspects of ICT integration in education. The data will be published in the UNESCO Institute for Statistics (UIS) Data Centre at http://stats.uis.unesco.org and major international reports.

Please return the completed questionnaire before 28th March 2011. The electronic form can be submitted directly to the UIS by email to b.valdez-melgar@unesco.org. Questionnaires completed using the printed forms should be sent to:

UNESCO Institute for Statistics
P.O. Box 6128, Succursale Centre-Ville
Montreal, Quebec H3C 3J7
Canada

Telephone: (1 514) 343-7392
Fax: (1 514) 343-6872

Please refer to the Glossary before completing the questionnaire.

Data reported in this questionnaire should cover all educational institutions in your country. If this is not the case, please provide a detailed explanation using a comment in the electronic form or footnote in the printed form. To enter comments in the electronic form, please press the RIGHT mouse button and click on “Insert comments”.

Please do not leave any cell blank. Please use the following symbols in the tables if you do not have the data requested:

- a = category not applicable
- m = data missing (or not available)
- n = quantity nil
- x = data included in another category (to be indicated with a comment or a footnote)

Estimated or provisional data should be marked with an asterisk (*).
RESPONDENT INFORMATION

Please provide details below of the person responsible for completing this questionnaire.

Family name:.......................................................
First name:...................................................

Job title (or position):........................................................................................................
Department, division or sector (if any):......................................................................................
Organization: ...............................................................................................................................................................................................
Mailing address:..........................................................................................................................................................................................
City: ........................................................................................................ Postal code: ..................................................................................
Country: ........................................................................................................ Fax: (        )........................
Telephone: (         ) ..........................................................
Mobile phone: (         ) ........................................................

Male □ □ Female

REFERENCE YEAR FOR THE DATA SUBMITTED IN THE QUESTIONNAIRE

Data reported in this questionnaire should refer to the academic year ending in 2010. If data are not available for the requested year, please report the most recent year available.

The academic year began in ......................... (month) 20.......
and ended in .................................................. (month) 20......
SECTION A: POLICY AND CURRICULUM

Please provide the source of the data reported in Section A, if different from the main source on the second page:

Organization: ................................................................................................................................................................................................
Department: ................................................................................................................................................................................................
Data source (name of publication, database, website, etc.): ................................................................................................................................................................................................

A.1 In order to promote/implement the integration of ICT in Education, does your country have …?  

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1.1 a national policy?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>A.1.2 a national plan?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>A.1.3 a set of regulatory provisions?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>A.1.4 a regulatory institution or body?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

A.2 Does your country have a national policy specifically for the use of open educational resources?  
☐ Yes ☐ No

A.3 Does your curriculum include specific objectives or a subject on basic computer skills (or computing)?  

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

A.4 As part of the policies/plans/provisions to integrate ICT in education, are there recommendations for ICT-assisted instruction to form part of subject delivery at specific grade(s)?  
☐ Yes ☐ No

If the answer to Question A.4 is yes, please tick all applicable boxes that have ICT-assisted instruction by subject:

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every grade</td>
<td>At least one grade</td>
<td>Every grade</td>
</tr>
<tr>
<td>A.4.1 All subjects</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.2 Mathematics</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.3 Sciences</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.4 Basic computer skills (or computing)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.5 Written communication (language)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.6 Second language</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A.4.7 Arts</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
A.5 Please indicate the total statutory **annual instructional time (in hours)** for the following ISCED levels:

<table>
<thead>
<tr>
<th>Level</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCED 1</td>
<td></td>
</tr>
<tr>
<td>ISCED 2</td>
<td></td>
</tr>
<tr>
<td>ISCED 3</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION B: EDUCATIONAL PROGRAMMES AND ENROLMENT**

Please provide the source of the data reported in Section B, if different from the main source on the second page:

Organization: ................................................................................................................................................................................................
Department: ................................................................................................................................................................................................
Data source (name of publication, database, website, etc.): .........................................................................................................................................................

**Table 1: Educational institutions by programme level**

**NB. In the table below,**
- **Columns (1), (2) and (3) must contain the number of educational institutions offering educational programmes at each level. Double counting is permitted since an educational institution may offer two or more programmes that span more than one ISCED level. For example, if an educational institution offers both ISCED 2 and ISCED 3 programmes, it must be counted once under ISCED 2 and once under ISCED 3.**
- **Column (4) refers only to educational institutions as organisational units regardless of the number of ISCED1-3 programmes they offer. Therefore, (4) is NOT the total of columns (1), (2) and (3).**
- **B.1 is NOT the sum of B.1.1 to B.1.9**

<table>
<thead>
<tr>
<th>Primary and secondary (ISCED 1,2 and 3) – All programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) ISCED 1</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>B.1</td>
</tr>
<tr>
<td>B.1.1</td>
</tr>
<tr>
<td>B.1.2</td>
</tr>
<tr>
<td>B.1.3</td>
</tr>
<tr>
<td>B.1.4</td>
</tr>
<tr>
<td>B.1.5</td>
</tr>
<tr>
<td>B.1.5.1</td>
</tr>
<tr>
<td>B.1.5.2</td>
</tr>
</tbody>
</table>
### Primary and secondary (ISCED 1,2 and 3) – All programmes

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
<th>ISCED 1, 2 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Of which: Public</td>
<td>Total</td>
<td>Of which: Public</td>
</tr>
</tbody>
</table>

#### B.1.6
Number of educational institutions with access to the Internet

#### B.1.6.1
Number of educational institutions with fixed broadband Internet

#### B.1.6.2
Number of educational institutions with Internet-assisted instruction

#### B.1.7
Number of educational institutions with open educational resources

#### B.1.8
Number of educational institutions with ICT support services

#### B.1.9
Number of educational institutions with a website

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### Table 2: Enrolment by gender and ISCED level

**NB. In the table below,**
- ‘MF’ refers to both sexes and ‘F’ refers to female.
- B.2 is **NOT** the sum of B.2.1 to B.2.8

#### Primary and secondary pupils – All programmes

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Of which: Public</td>
<td>Total</td>
</tr>
</tbody>
</table>

#### B.2
Enrolment

- MF
- F

#### B.2.1
Enrolment in programmes having access to electricity

- MF
- F

#### B.2.2
Enrolment in programmes having access to telephone communication facility

- MF
- F

#### B.2.3
Enrolment in programmes offering radio-assisted instruction

- MF
- F

#### B.2.4
Enrolment in programmes offering television-assisted instruction

- MF
- F

#### B.2.5
Enrolment in programmes offering computer-assisted instruction

- MF
- F

#### B.2.6
Enrolment in programmes offering Internet-assisted instruction

- MF
- F

#### B.2.7
Enrolment in programmes having access to open educational resources

- MF
- F

#### B.2.8
Enrolment in courses offering basic computer skills (or computing)

- MF
- F
Table 3: Enrolment (t-1) in the previous school year by gender and ISCED level

**NB. In the table below,**
- ‘MF’ refers to both sexes and ‘F’ refers to female.

<table>
<thead>
<tr>
<th>B.3</th>
<th>Enrolment (t-1)</th>
<th>MF</th>
<th>F</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B.3.1</th>
<th>Enrolment in programmes offering computer-assisted instruction (t-1)</th>
<th>MF</th>
<th>F</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B.4</th>
<th>Pupils who passed at the end of t-1</th>
<th>MF</th>
<th>F</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B.4.1</th>
<th>Pupils who passed at the end of t-1 from programmes offering computer-assisted instruction</th>
<th>MF</th>
<th>F</th>
</tr>
</thead>
</table>

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SECTION C: COMPUTERS

Please provide the source of the data reported in Section C, if different from the main source on the second page:

**Organization:** ................................................................................................................................................................................................

**Department:**................................................................................................................................................................................................

**Data source (name of publication, database, website, etc.):** ................................................................................................................................................................................................

Table 4: Computers allocated to educational programmes

**NB. In the table below,**
- Columns (1), (2) and (3) must contain the number of available computers at each level, whether they are shared or not across levels. Therefore, double counting is permitted.
- Column (4) refers only to the available number of computers (physical units) in all primary and secondary programmes. (4) is NOT the total of columns (1), (2) and (3).
- C.3 is NOT the sum of C.3.1 to C.3.4

<table>
<thead>
<tr>
<th>(1) ISCED 1</th>
<th>(2) ISCED 2</th>
<th>(3) ISCED 3</th>
<th>(4) ISCED 1, 2 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Of which: Public</td>
<td>Total</td>
<td>Of which: Public</td>
</tr>
<tr>
<td>(Physical units)</td>
<td>(Physical units)</td>
<td>(Physical units)</td>
<td>(Physical units)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C.3</th>
<th>Number of computers available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C.3.1</th>
<th>Number of computers for pedagogical use</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C.3.2</th>
<th>Number of computers for administrative use</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C.3.3</th>
<th>Number of computers for community use</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C.3.4</th>
<th>Number of computers connected to the Internet</th>
</tr>
</thead>
</table>
SECTION D: PRIMARY AND SECONDARY TEACHERS

Please provide the source of the data reported in Section D, if different from the main source on the second page:

Organization: ................................................................................................................................................................................................
Department: .................................................................................................................................................................................................
Data source (name of publication, database, website, etc.): ........................................................................................................................................

Table 5: Teaching staff by gender and ISCED level

NB. In the table below,

- ‘MF’ refers to both sexes and ‘F’ refers to female.
- D.1 is NOT the sum of D.1.1 to D.1.5

<table>
<thead>
<tr>
<th>ISCED 1</th>
<th>ISCED 2</th>
<th>ISCED 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Of which:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D.1</th>
<th>Number of teachers</th>
<th>MF</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.1.1</td>
<td>Number of teachers who teach basic computer skills (or computing)</td>
<td>MF</td>
<td>F</td>
</tr>
<tr>
<td>D.1.2</td>
<td>Number of teachers currently teaching subject(s) using ICT facilities</td>
<td>MF</td>
<td>F</td>
</tr>
<tr>
<td>D.1.3</td>
<td>Number of teachers trained via ICT-enabled distance education programmes</td>
<td>MF</td>
<td>F</td>
</tr>
<tr>
<td>D.1.4</td>
<td>Number of teachers trained to teach basic computer skills (or computing)</td>
<td>MF</td>
<td>F</td>
</tr>
<tr>
<td>D.1.5</td>
<td>Number of teachers trained to teach subject(s) using ICT facilities</td>
<td>MF</td>
<td>F</td>
</tr>
</tbody>
</table>
GLOSSARY

ALL PROGRAMMES

All programmes include both general education as well as technical and vocational education programmes. See corresponding definitions.

ANNUAL INSTRUCTIONAL TIME

Annual instructional time (in hours) corresponds to the total number of statutory hours that are allocated for learning activities in a school year according to the national regulations. That is to say, these are the intended number of hours expected to be used for educational activities in a given school year for a given grade.

Please note that instructional periods must correspond to a full hour equivalent of 60 minutes. Where the standard duration of a period is different from 60 minutes, it is transformed into a full hour equivalent by dividing by 60 minutes.

Annual instructional time (in hours) is calculated as:

\[(\text{Standard duration of a period in minutes} / 60 \text{ minutes} \times \text{number of instructional periods in a day}) \times (\text{net number of instructional days per annum})\]

Where net number of instructional days per annum is equivalent to the number of statutory school days per annum minus the number of days the school is closed (e.g., festivities, national holidays, non-teaching pedagogical days, etc.)

Source: Adapted from the World Education Indicators specific Data Collection Manual.

BASIC COMPUTER SKILLS

Basic computer skills is a curriculum module that covers the most common usages of a computer, including a majority or all of the following: understanding the basic notions of computer manipulation; managing computer files, word processing, using spreadsheets and databases; creating presentations; finding information and communicating using computers; and being aware of social and ethical implications of Internet use.

From a statistical perspective, nationally-defined content of such modules should be considered. In the absence of a national standard, please consider curriculum modules that have a majority or all of the above content units as equivalent to a basic computer skills course.

Basic computer skills may be taught as a separate subject or integrated into other subjects. A basic computer skills module accompanied by a growing number of countries is the International Computer Driving Licence (ICDL) assessment system, which is derived from the European Computer Driving Licence (ECDL).

COMPUTER

Computer refers to a programmable electronic device that can store, retrieve and process data, as well as share information in a highly-structured manner. It performs high-speed mathematical or logical operations according to a set of instructions.

When providing data on the number of computers, personal computers (PCs), laptops, notebooks, terminals connected to mainframes and mini-computers intended for shared use should be included. Computers must also be of functional use to meet pedagogical and/or administrative needs.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development.

COMPUTER-ASSISTED INSTRUCTION

Computer-assisted instruction is an interactive learning method in which a computer is used by teachers and/or pupils to present instructional material, to perform tasks for learning and to help in selecting and accessing additional pedagogical material.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development.

COMPUTER LABORATORY

Computer laboratory is a room or space equipped with computers (networked or not) devoted to pedagogical use in an educational institution. A computer laboratory must be safe from any disruptive, non-pedagogical content where pupils and teachers may need authorized access credentials. In this context, Internet booth (or community Internet centres) must be excluded unless there is a decisive policy to use such facilities for pedagogical purposes.

COMPUTERS FOR ADMINISTRATIVE USE

Computers for administrative use refer to computers used by non-teaching staff to assist with school management. Such usage may include record-keeping or data processing and analysis of registration and daily attendance in classes, teaching and non-teaching staff, physical school facilities, budget and expenditure data, and assessment results. It also includes planning of programmes and deployment of human, material and financial resources. It may involve secretarial usage through word processing, as well as communications with external bodies or parents through emails.

COMPUTERS FOR PEDAGOGICAL USE

Computers for pedagogical use refers to the use of computers to support course delivery or independent teaching and learning needs. This may include activities using computers or the Internet to meet information needs for research purposes; develop presentations; perform hands-on exercises and experiments; share information; and participate in online discussion forums for educational purposes.

COMPUTING

Computing refers to a course programme usually taught at ISCED 4, 5 or 6 levels. Some schools may also teach computing (mainly computer programming) at ISCED 3. Typical computing course content may include: system design, computer programming, data processing, networks, operating systems and software development. Computing does not include computer hardware design, construction and production.

Source: Adapted from International Standard Classification of Education (ISCED97).

COURSE

A course is a planned series of learning experiences in a particular subject matter or set of skills, usually offered by an educational or training institution or programme for one or more pupils.

Source: Adapted from International Standard Classification of Education (ISCED97)

CURRICULUM

Curriculum refers to the design, planning and sequencing of teaching and learning processes. It includes a statement of purpose, content, activities and learning practices, as well as the modalities for assessing pupils’ achievements. For the purpose of this questionnaire, the relevant subjects that are contained in the curriculum are defined below:

- **Mathematics**: mathematics, mathematics with statistics, geometry.
- **Science**: science, physics, physical science, chemistry, biology, human biology, environmental science, agriculture / horticulture / forestry.
- **Basic computer skills (computing)**: See corresponding definitions
- **Written communication (language)**: This refers to reading and writing in the tongue of instruction normally used in educational programmes.
- **Second language**: This refers to reading and writing in a second “tongue” (e.g., a foreign language) or reading and writing in the native tongue of the country as a second language (for non-natives).
- **Arts**: arts, music, visual arts, practical art, drama, performance music, photography, drawing, creative handicraft, creative needlework.

EDUCATIONAL INSTITUTIONS

Educational institutions have as their sole or main purpose the provision of education. Such institutions are normally accredited or sanctioned by some public authorities. While the majority of educational institutions fall under the jurisdiction of, or are operated by, education authorities, other public agencies dealing with such areas as health, training, labour, justice, defence, social services, etc. may also be involved. Educational institutions may also be operated by private organizations such as religious bodies, special-interest groups or private educational and training institutions, both profit and non-profit making.

Source: Adapted from the UIS Instruction Manual for Completing the Questionnaires on Statistics of Education – 2003.

ELECTRICITY

Electricity refers to regularly and readily available sources of power (e.g. grid/mains connection, wind, water, solar and fuel-powered generator, etc.) that enable the adequate and sustainable use of ICT infrastructure for educational purposes.

In this questionnaire, enrolment in educational programmes offered by institutions having access to electricity must be counted.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development.

ENROLLMENT (OR ENROLLED)

Enrolment (or enrolled) refers to a pupil registered in a grade or programme of study at an educational institution who met enrolment prerequisites at the registration date.

Period (t) refers to enrolment for the school year ending in 2010 or most recent year available. Period (t-1) refers to enrolment for the preceding school year ending in 2009.

From a statistical perspective, nationally-defined content of such modules should be considered. In the absence of a national standard, please consider curriculum modules that have a majority or all of the above content units as equivalent to a basic computer skills course.

Basic computer skills may be taught as a separate subject or integrated into other subjects. A basic computer skills module accompanied by a growing number of countries is the International Computer Driving Licence (ICDL) assessment system, which is derived from the European Computer Driving Licence (ECDL).

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development.

Period (t) refers to enrolment for the school year ending in 2010 or most recent year available. Period (t-1) refers to enrolment for the preceding school year ending in 2009.
FIXED BROADBAND INTERNET

Fixed broadband Internet refers to high-speed connectivity for public use of at least 256 Kbit/s or more in one or both directions (downloading and uploading). It includes cable modem Internet connections, DSL Internet connections of at least 256 Kbit/s or higher, fibre and other fixed broadband technology connections (such as satellite broadband Internet, Ethernet LANs, fixed-wireless access [FWA], Wireless Local Area Network, WiMAX, etc.).

Private Internet connectivity within educational institutions via mobile phone networks is excluded.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development.

GENERAL PROGRAMMES

General programmes (or general education) are designed mainly to provide pupils with a deeper understanding of a subject or group of subjects, especially – but not necessarily – with a view to preparing pupils for further education at the same or higher level. Such programmes are typically school-based and may or may not contain vocational elements. Successful completion of such programmes may lead to an academic qualification. However, successful completers typically cannot enter a particular occupation, trade or class of occupations or trades without further training. Programmes with a general orientation and not focused on a particular specialization should be classified in this category.

ICT FACILITIES

See definition of Information and Communication Technologies (ICT).

ICT SUPPORT SERVICES

ICT support services refer to a range of services implemented by educational institutions in order to ensure permanence and performance of facilities for operating ICT-assisted instruction without discontinuity. The implementation of such services may imply operational or administrative measures to support the sustainability of ICT-assisted operations by assigning a designated unit or staff member to the task or granting renewable quarterly, bi-quarterly or yearly contract(s) to private service provider(s). Key objectives behind the use of ICT support services by schools may include:

- ascertaining that every pedagogic and administrative unit, including special needs and library units, identifies its requirements for ICT provision;
- coordinating the effective use of ICT across the whole curriculum and encouraging aspects of cross-curricular planning;
- helping pedagogic and administrative units to consider how ICT can support the teaching and learning of subjects other than computing and what those subjects can contribute to the teaching and learning of ICT skills;
- monitoring on behalf of the senior leadership team how equipment and software are accommodated, acquired, maintained and replaced, and how they are stored, accessed and used by pupils and staff;
- ensuring that sensible, transparent decisions are made where there are competing demands for resources and that the school improvement plan includes plans for encouraging and supporting the professional development of all staff in the use of ICT in their subjects, in line with school policy and practices; and
- managing the school’s ICT technician and network manager, etc.

From a statistical perspective, irrespective of the modalities for acquiring such services either through one or multiple means, the sole existence of such regular or renewable contracted services in an educational institution implies the presence of ICT support services.

Source: Adapted from the Department for Children, Schools and Families.

ICT-ASSISTED INSTRUCTION

ICT-assisted instruction refers to teaching methods or models of instruction delivery that employ ICT in supporting, enhancing and enabling course content delivery. It includes any, all or combinations of the following: radio-, television-, computer- and Internet-assisted instruction.

ICT-ENABLED DISTANCE EDUCATION PROGRAMMES

ICT-enabled distance education programmes refer to programmes or instructional systems that use ICT (Internet, radio sets, television sets, personal computers, audiovisual material or print material to a minimal degree) to deliver all or a significant portion of teaching to pupils removed in space and time. Distance education can take a variety of forms, which include:

- Internet-based distance learning either synchronously or asynchronously;
- Telecourse or broadcast-based education, in which content is delivered via radio or television;
- CD-ROM or DVD-based self-learning in which the pupils interact with computer content stored on a CD-ROM or DVD;
- Mobile devices-based learning where the learner accesses course content stored on a mobile device or through a wireless server; and
- Integrated distance learning, combining live versus recorded delivery modes, individualized interaction versus group instruction through various channels, and/or print materials to a minimal degree, etc.

...but exclude:

- Correspondence-based distance learning conducted exclusively through postal-mail.

INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

For the purpose of statistical reporting, information and communication technologies (ICT) is defined as a diverse set of technological tools and resources used to transmit, store, create, share or exchange information. These technological tools and resources include computers, the Internet (websites, blogs and emails), live broadcasting technologies (radio, television and webcasting), recorded broadcasting technologies (podcasting, audio and video players, and storage devices) and telephony (fixed or mobile, satellite, video/conferencing, etc.).

INTERNET

Internet refers to worldwide interconnected networks that enable users to share information in an interactive format — referred to as hypertext — through multiple wired or wireless receivers (personal computers, laptops, PDAs, Smartphones, etc.). (See also definitions for fixed narrowband Internet and fixed broadband Internet.)

INTERNET-ASSISTED INSTRUCTION

Internet-assisted instruction refers to an interactive learning method using content from the World Wide Web for pedagogical purposes.

ISCED LEVELS

ISCED levels are defined in the 1997 version of the International Standard Classification of Education (ISCED97) maintained by UNESCO. Levels of education are classified as follows:

- ISCED 0 – Pre-primary
- ISCED 1 – Primary or first stage of basic education
- ISCED 2 – Lower secondary or second stage of basic education
- ISCED 3 – Upper secondary education
- ISCED 4 – Post-secondary non-tertiary education (programmes that lie between the upper secondary and tertiary levels of education)
- ISCED 5 – First stage of tertiary education (not leading directly to an advanced research qualification)
- ISCED 6 – Second stage of tertiary education (leading to an advanced research qualification)


LOCAL AREA NETWORK (LAN)

A local area network (LAN) refers to a network connecting computers within a localized area such as a single building, department or site; it may be wireless.

Source: Partnership on Measuring ICT for Development, Core ICT Indicators, 2010

OPEN EDUCATIONAL RESOURCES

Open educational resources refers to electronic resources and tools for learning in open document format and released under an intellectual property licence allowing free use, adaptation and distribution.

From a statistical perspective, institutions must have a specific policy to devote resources for the coordination and maintenance of an electronic repository for pedagogical use.

PLAN

Plan refers to a government-issued document on how its goals are to be achieved within a specified timeframe. It details each activity to be undertaken, the method employed for implementation, the resources required and the actors responsible for implementing each activity.

POLICY

Policy refers to a set of ideas that has been agreed officially by a group of people, a business organization, a government or a political party usually expressed in a government-issued document which outlines the principles, guidelines and strategy in relation to a particular (or determined) public activity.

PRIVATE EDUCATION

Private education is offered by educational institutions that are controlled or managed by a non-governmental organization (including but not limited to a church, trade union or business enterprise), whether or not it receives financial support from public authorities.

Source: Adapted from the UIS Instruction Manual for Completing the Questionnaires on Statistics of Education
Educational programmes are defined as a coherent set or sequence of educational activities that are designed and organized to achieve pre-determined learning objectives or a specific set of educational tasks over a sustained period. Objectives encompass improving knowledge, skills and competencies within any personal, civic, social and/or employment related context. This is typically linked to the purpose of preparing for more advanced studies and/or for an occupation or range of occupations. A common characteristic of educational programmes is that, upon fulfilment of learning objectives or educational tasks, completion is recognized or certified by the provider.

In ISCED-97, programmes are assigned to levels of education. Broadly speaking, the level is related to the degree of complexity of the content of the programme. The notion of ‘levels’ of education, therefore, is essentially a construct based on the assumption that educational programmes can be grouped, both nationally and cross-nationally, into an ordered series of categories broadly corresponding to the overall knowledge, skills and capabilities of required participants if they are to have a reasonable expectation of successfully completing the programmes in these categories. These categories represent broad steps of educational progression from very elementary to more complex experiences with the more complex the programme, the higher the level of education.

**PUBLIC EDUCATION**

Public education is offered by educational institutions that are controlled or managed by a governmental education authority or agency that can be at the national/federal, state/provincial or local level, irrespective of the origin of its financial resources.

Source: Adapted from the UIS Instruction Manual for Completing the Questionnaires on Statistics of Education

**PUPILS WHO PASSED**

Pupils who passed refers to pupils who have successfully completed a given grade in a given academic year (t-1) and are, therefore, permitted to register in the following grade in the following academic year (t) or “promoted” to the next grade/level. Nevertheless, the intention here is not to measure the transition or flows across different school years, but the final results of a given academic year. A mandatory passing mark is usually required for promotion to the next grade.

Pupils who have passed during a recuperation period following an academic year or session are to be included.

**PUPIL**

Pupil refers to a child enrolled in an educational programme, whereas children or adults enrolled at more advanced levels are students.

Source: Adapted from the UIS Instruction Manual for Completing the Questionnaires on Statistics of Education

**RADIO**

Radio is considered to be a stand-alone device (in working condition) capable of receiving broadcast radio signals, using popular frequencies (such as FM, AM, LW and SW).

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development

**RADIO-ASSISTED INSTRUCTION**

Radio-assisted instruction includes both radio broadcast education and interactive radio instruction.

Radio broadcast education entails an audio lecture or lesson, with printed material for pupils to follow the lecture. Any teacher, not necessarily qualified in the subject matter, can use the radio programme as a main instructional source. Broadcast programmes follow the traditional model of education and can cover every subject in many different languages, depending on the target audience.

Interactive radio instruction (IRI) turns a typically one-way technology into a tool for active learning inside and outside the classroom. It requires that pupils react to questions and exercises through verbal responses to radio programme contributors, group work, and physical and intellectual activities while the programme is on air. For both teacher and pupil, the lesson becomes an immediate hands-on practical guide.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development

**REGULATORY INSTITUTION**

Regulatory institution refers to a separate body, organization, committee or bureau that has been given responsibility by the government for promoting, coordinating and ensuring correct implementation of laws and policies.

**REGULATORY PROVISION**

Regulatory provision refers to a law or legal provision usually made by a government, that is used to order the way in which a society behaves.

**TEACHERS**

Teachers and teaching staff refers to persons employed in an official capacity for the purpose of guiding and directing the learning experience of pupils, irrespective of qualifications or the delivery mechanism, i.e. whether face-to-face and/or at a distance. This definition excludes educational personnel who have no active teaching duties (e.g. headmasters who do not teach) or work occasionally or in a voluntary capacity in educational institutions (e.g. parents).

**TEACHERS TRAINED TO TEACH BASIC COMPUTER SKILLS (OR COMPUTING)**

Teachers trained to teach basic computer skills (or computing) refers to teachers considered qualified according to national standards or norms to teach basic computer skills (or computing) courses.

At higher ISCED levels, in particular, teachers trained to teach computing should have a nationally required academic credential in an ICT-related field of study, such as computer science.

**TEACHERS TRAINED TO TEACH SUBJECTS USING ICT FACILITIES**

Teachers trained to teach subjects using ICT facilities are teachers that have received at least a nationally defined minimum of formal training to teach one or various subjects at the relevant level(s) using ICT to support their teaching.

**TECHNICAL EDUCATION or VOCATIONAL TRAINING**

Technical education or vocational training is designed mainly to provide pupils with the practical skills, know-how and understanding necessary for direct entry into a particular occupation or trade (or class of occupations or trades). Successful completion of such programmes normally leads to a labour market-relevant vocational qualification recognised by the national competent authorities (e.g. Ministry of Education, employers’ associations, etc.).

**TELEPHONE COMMUNICATION FACILITY**

Telephone communication facility refers to fixed telephone lines, cable connections (i.e. cable telephony) or other sustainable communication technology that connects an educational institution’s terminal equipment (e.g. telephone set, facsimile machine) to the public switched telephone network (PSTN) and has a dedicated port on a telephone exchange. Access is defined by a subscription to services that allow the physical presence and use of the facilities in a given educational institution. A mobile cellular phone owned by an individual working at a school does not constitute a school telephone communication facility.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development

**TELEVISION**

Television is considered to be a stand-alone device (in working condition) capable of receiving broadcast television signals using popular access means (such as over-the-air, cable and satellite).

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development

**TELEVISION-ASSISTED INSTRUCTION**

Television-assisted instruction is similar to radio broadcast education, with the additional benefit of video. It helps to bring abstract concepts to life through clips, animations, simulations, visual effects and dramatization. It can also connect a classroom to the world but shares the same rigid scheduling and lack of interactivity as radio broadcast education.

Source: Adapted from Revisions and Additions to the Core List of ICT Indicators – Partnership on Measuring ICT for Development

**TRAINED TEACHERS**

Trained teachers have received at least the minimum formal teacher training (pre-service or in-service) required for teaching at the relevant level.

Source: Adapted from Instruction Manual for Completing the Questionnaires on Statistics of Education

**WEBSITE**

Website refers to a collection of interlinked web pages with a related topic, usually under a single domain name. In the context of educational institutions, a website includes a home page with links to pertinent pedagogical information and other related activities.