UIS Survey on Statistics of Information and Communication Technology (ICT) in Education

Regional workshop for Latin America and the Hispanic Caribbean
Sao Paulo, Brazil, 17-18 November 2016

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Outline

Module 1

❖ Regional survey on ICT in education

- ✓ Policy and Curriculum
- ✓ Educational Institutions & ICT infrastructure
- ✓ Enrolment
- ✓ Computers allocated to schools
- ✓ Teaching staff and ICT

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Questionnaire on Statistics of ICT4E

Coverage

All programmes

General + technical and vocational education and training (TVET), but excluding Adult Education

Primary and secondary education (**ISCED 1- 3**)

ISCED 2011

Public & private (Total)
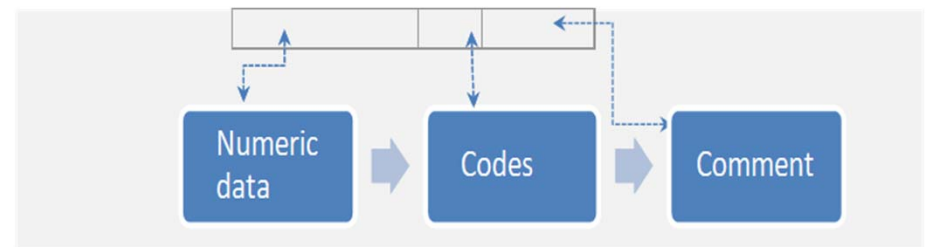
Public only

Questionnaire on Statistics of ICT4E

- ❖ Excel version

- ❖ Contains validation checks

- ❖ Excel commenting feature has been disabled

- ❖ Tables have three types of cells for numeric data (including zeros (0) for nil or negligible)

Structure of data items

Codes

Z Category not applicable (previously denoted as 'a')

X Data included elsewhere

W Includes data from another category (new code)

M Data not available or missing

Data included in another category. ISCED 2, column O, row 11 (O11)

Including data from another category (ISCED 3)

?

			L		O		R		U	
	Schools		Primary (ISCED 1)		Lower secondary (ISCED 2)		Upper secondary (ISCED 3)		Total primary and secondary schools	
All schools	Total number of schools									
		Electricity								
		Telephone communication facility								
		Internet	3,000.000	W Data re:	20,000.000	W Includes data from ISCED	X Data inc		23,000.000	W Includes
	Of which:	Fixed narrowband Internet		Z	7,000.000	W Includes data from ISCED	X Data included in O12		M	
		Fixed broadband Internet		Z		X Data included in O11	X Data included in O11		M	
		Mobile broadband Internet		X Data included in L11		X Data included in O11	X			X Data inc
	With:	Radio(s) for teaching and learning								
		Television(s) for teaching and learning								
		Computer(s) for teaching and learning								

Row: 11

Structure

ED/ICT -VAL Metadata

Section VAL — **General information**

Section VAL — Policy — Curriculum

Section ICT1 — ICT infrastructure

Section ICT2 — Enrolment

Section ICT3 — Computers

Section ICT4 — Teaching staff

1 Please provide information on the person(s) responsible for completing this questionnaire.

Contact 1: Person in charge of completing the questionnaire:

Full name:	
Organization:	
Organization unit:	
Function:	
Email address:	
Phone number:	
Fax number:	

Contact 2: Head of the organization (if different from Contact 1):

Full name:	
Organization:	
Organization unit:	
Function:	
Email address:	
Phone number:	
Fax number:	

2 Please indicate the reference year of the data provided in this questionnaire:

3 Do the data provided in this questionnaire cover the entire education system including vocational education and correspond to your national ISCED2011 mapping?
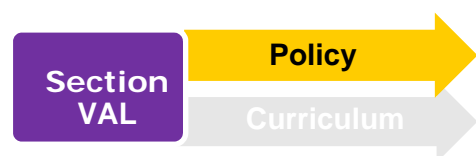
1 - Please select:

If not or data are partial, please provide information regarding the coverage of the data in the space below:

4 Please provide the Ministry or department and main data source (name of publication, database, website, etc.) for the data provided in the questionnaire:

	Ministry/Department	Data source
Policy and curriculum		
ICT1: Schools		
ICT2: Students		
ICT3: Computers		
ICT4: Teachers		

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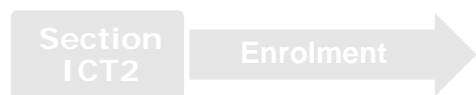# ICT policy in education

Structure

5 Does your country have a specific ICT in education policy or planning document?

(Choose from the drop-down menu. Please select a response for all items at all levels)

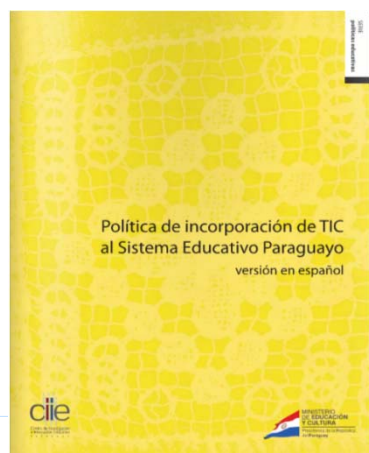*Where it exists, please attach or send by mail.*

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
ICT in education policy or planning document	1 - Please select:	1 - Please select:	1 - Please select:

Política de incorporación de TIC al Sistema Educativo Paraguayo

versión en español

Political commitments

Integrating ICT in education

1	Policy/plan
2	National law
3	Regulatory mechanism
4	Teacher training
5	Teacher incentives

6 If no for the previous question, is ICT in education promoted within:

(Choose from the drop-down menu. Please select a response for all items at all levels)

Where they exist, please attach or send by mail related ICT in education documents.

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Education sector policy and/or planning documents	1 - Please select:	1 - Please select:	1 - Please select:
Cross sectoral ICT Master policy and/or planning documents	1 - Please select:	1 - Please select:	1 - Please select:
National law	1 - Please select:	1 - Please select:	1 - Please select:
Regulatory mechanism	1 - Please select:	1 - Please select:	1 - Please select:
Teacher education/training policy	1 - Please select:	1 - Please select:	1 - Please select:
Teacher incentives	1 - Please select:	1 - Please select:	1 - Please select:
Other	1 - Please select:	1 - Please select:	1 - Please select:

Select "yes", "no" or "don't know" - federal (state) or provincial level"

Concepts and Definitions

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 document which outlines the principles, guidelines and strategy in relation to a particular activity.

PLAN

Refers to a document of how a set policy is 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.

LAW

A law is an act of the supreme legislative body of a state or nation, as distinguished from the constitution.

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Concepts and Definitions

REGULATION

A regulation is also a law, but is supported by an enabling statute, and is not issued by a legislative body but by an executive branch of government.

REGULATORY MECHANISM

Regulatory mechanism 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 a law or regulation.
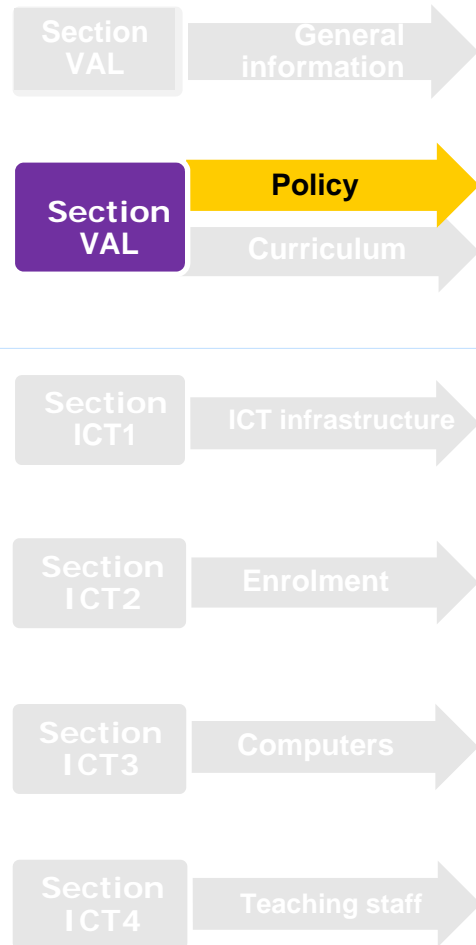
TEACHER INCENTIVE PROGRAMME

A teacher incentive programme is used to incite various actions among teachers including improving the quality of their teaching, improve their current teaching qualifications, or remain in the profession. Incentives programmes may be monetary or non-monetary in nature. Monetary incentives include salary differentials and other benefits including bonuses, pension, benefits or job stability. In contrast non-monetary incentives may include opportunities for professional growth and advancement.

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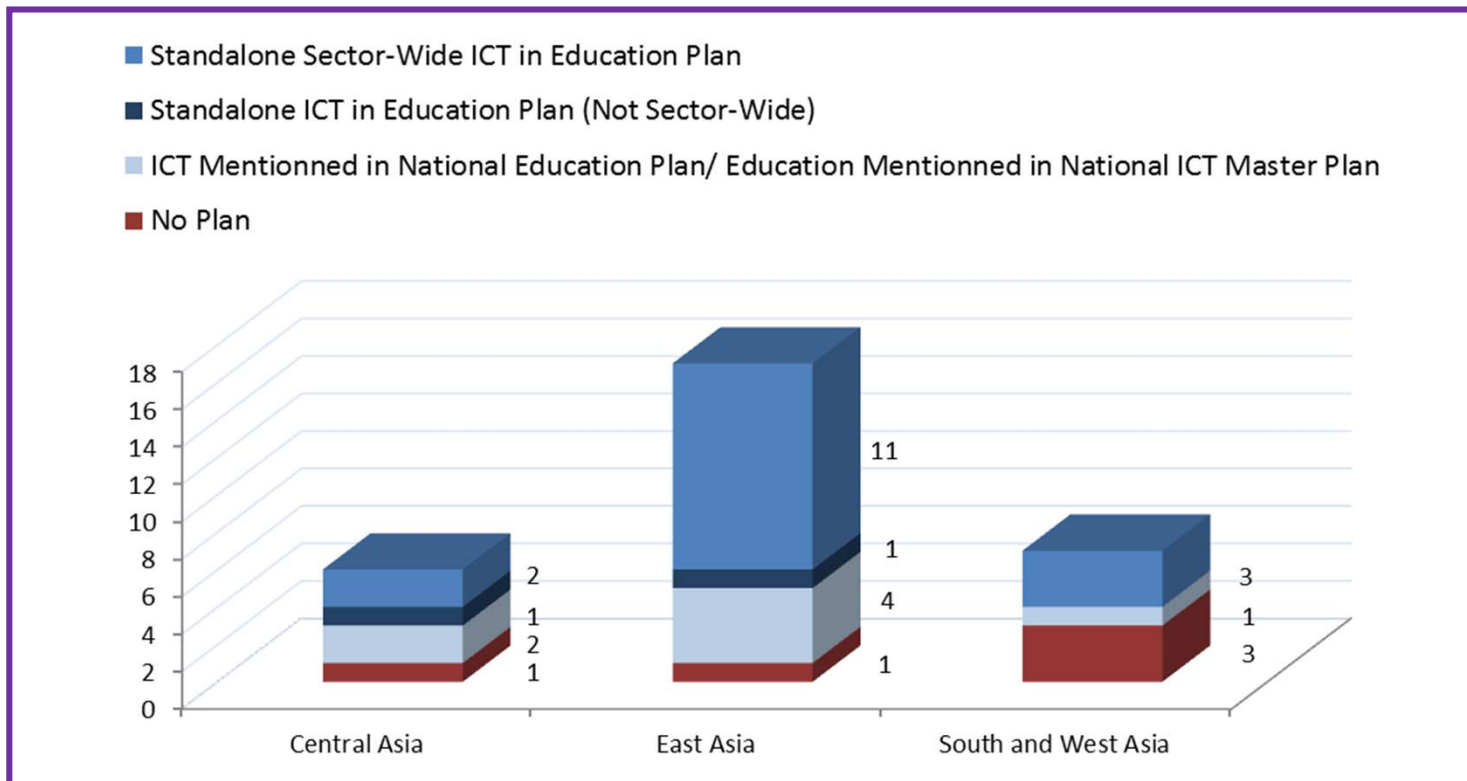STATISTICS

Political commitments

Structure

Data sources

ICT policy in education is geared towards ensuring better conditions for students and creating an environment conducive to learning
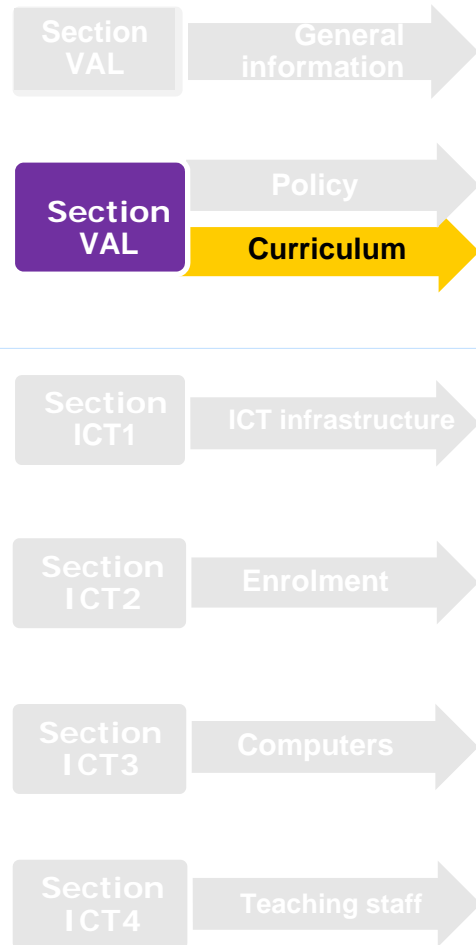
What is measured ?

National plans to implement ICT in education, by type, Asia, 2012

Curriculum

Structure

7 Does the education curriculum include courses on basic computer or computing skills?

(Choose from the drop-down menu. Please select a response for all items at all levels)

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Basic computer skills	1 - Please select:	1 - Please select:	1 - Please select:
Computing skills	1 - Please select:	1 - Please select:	1 - Please select:

8 Indicate for which subjects, official curriculum recommends the use of ICT to support teaching and learning:

(Choose from the drop-down menu. Please select a response for all items at all levels)

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
All subjects	1 - Please select:	1 - Please select:	1 - Please select:
Of which:			
Mathematics	1 - Please select:	1 - Please select:	1 - Please select:
Natural Sciences	1 - Please select:	1 - Please select:	1 - Please select:
Social Sciences	1 - Please select:	1 - Please select:	1 - Please select:
Reading, writing and literature	1 - Please select:	1 - Please select:	1 - Please select:
Second Languages	1 - Please select:	1 - Please select:	1 - Please select:

Select "yes", "no" or "do not know"

Concepts and Definitions

Select "yes", "no" or "do not know"

7 Does the education curriculum include courses on basic computer or computing skills?
(Choose from the drop-down menu. Please select a response for all items at all levels)

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Basic computer skills	1 - Please select:	1 - Please select:	1 - Please select:
Computing skills	1 - Please select:	1 - Please select:	1 - Please select:

CURRICULUM

Design, planning and sequencing of teaching and learning processes. It includes a statement of purpose, contents, activities and learning practices, as well as the modalities for assessing learners' achievements.

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Concepts and Definitions

BASIC COMPUTER SKILLS

Basic computer skills courses cover 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.

Basic computer skills may be taught as a separate subject or integrated into other subjects. A common standard applied 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).

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COMPUTING

Computing course refer to the instruction of system design, computer programming, coding, data processing, networks, operating systems, and software development. It does not include computer hardware design, construction and production. Computing courses are typically taught at the post-secondary and tertiary levels (ISCED 4-8), but some schools may also teach computing (mainly computer programming) in upper secondary education (ISCED 3).

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Concepts and Definitions

MATHEMATICS

It is a field of study including algebra, arithmetic, calculus, geometry, statistics and trigonometry.

NATURAL SCIENCES

It is a field of study including astronomy, biology, chemistry, environmental science, physics, and physical science.

SOCIAL SCIENCES

It is a field of study including history, geography, social studies, civics/citizenship education, humanities, philosophy, community studies, and economics.
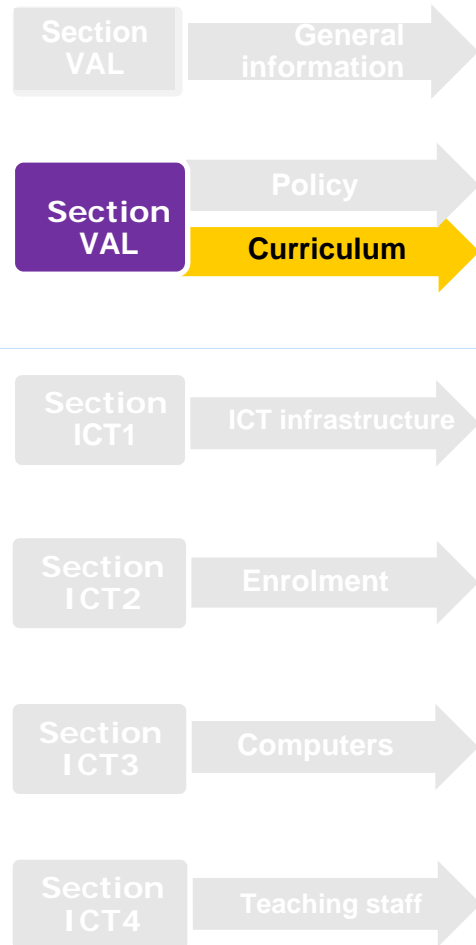
READING, WRITING AND LITERATURE

Language instruction intended for fluent speakers of the national, official or local languages, with a focus on literature and linguistics.

FOREIGN LANGUAGES

It is instruction in second languages from the perspective of the learner with a focus on grammar and vocabulary and perhaps culture.

Curriculum

Structure

9 According to official curriculum, indicate the total annual intended instructional time (in hours) for students for the following ISCED levels:

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Annual intended instructional time for students			
Of which in:			
Basic computer skills or computing courses			
Using ICT (across the curriculum)			
Using computers (across the curriculum)			

10 Indicate whether accredited teacher training programme(s) include courses on:

(Choose from the drop-down menu. Please select a response for all items at all levels)

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Teaching basic computer skills or computing courses	1 - Please select:	1 - Please select:	1 - Please select:
Using ICT to support teaching	1 - Please select:	1 - Please select:	1 - Please select:
Using ICT and assistive technologies to support children with disabilities	1 - Please select:	1 - Please select:	1 - Please select:

Select "yes", "no" or "do not know"

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Metadata: Policy and curriculum

Total number of intended instructional hours for students

9 **According to official curriculum, indicate the total annual intended instructional time (in hours) for students for the following ISCED levels:**

	Primary (ISCED 1)			Lower secondary (ISCED 2)			Upper secondary (ISCED 3)		
Annual intended instructional time for students									
Of which in:									
Basic computer skills or computing courses									
Using ICT (across the curriculum)									
Using computers (across the curriculum)									

INSTRUCTIONAL TIME

Amount of time during which students receive instruction from a classroom teacher in a school context. **Instructional time does not include** holidays or teacher development days when students are not expected to be in school; breaks during the school day; or time spent on learning outside of school (e.g. homework, tutoring).

Metadata: Policy and curriculum

How to calculate intended instructional time (in hours) ?

Intended instructional time (hours per year)

= ((Periods per day) * (Period duration)/ 60 minutes)) * (**Instructional days per school year**)

> *Whereas* **Instructional days per school year** is calculated as
>
> = ((Weeks per school year) * (Days per school week)) – (Non-instructional days per school year)

EXAMPLE :

= ((5 periods per day) * (45 minutes / 60 minutes)) * (190 instructional days per year)

> *Whereas*
>
> = ((40 weeks per year) * (5 Days per week)) - (10 non-instructional days per year)

= 712.5 annual intended instructional hours

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NON-INSTRUCTIONAL DAYS

Are days in the school week or year (not including weekends) devoted to non-instructional activities, including examination periods, holidays, festivities, teacher development, in-service training days, or other special days when students are not expected to be in school.

Metadata: Policy and curriculum

Select "yes", "no" or "do not know"

10 Indicate whether accredited teacher training programme(s) include courses on:

(Choose from the drop-down menu. Please select a response for all items at all levels)

	Primary (ISCED 1)	Lower secondary (ISCED 2)	Upper secondary (ISCED 3)
Teaching basic computer skills or computing courses	1 - Please select:	1 - Please select:	1 - Please select:
Using ICT to support teaching	1 - Please select:	1 - Please select:	1 - Please select:
Using ICT and assistive technologies to support children with disabilities	1 - Please select:	1 - Please select:	1 - Please select:

Concepts and Definitions

ASSISTIVE TECHNOLOGIES

Assistive technology refers to any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities

LEARNING DISABILITY

A physical or mental condition that limits a person's movements, senses, or activities, which in turn hinder learning.

Political commitments

Main questions or items respond to:

1. What policies/plans/provisions are in place to integrate ICT into education systems?

2. What policies and systems are in place to promote effective use of ICT in education?

3. Are ICTs part of curriculum reform?

4. How much instructional time is allocated to using ICTs?

5. Are ICTs emphasized within accredited teacher training programmes?

What is measured ?

Indicator prioritization

Conceptual domains	Indicator label	Indicators
Political/ curricular commitment	ED9	Proportion of ISCED levels covered by existing national policy, plan or regulatory mechanism for ICT in education (for ISCED levels 1-3)
	TBD	Proportion of intended instructional time in basic computer skills or computing courses (for ISCED levels 1-3)
	TBD	Proportion of intended instructional time using computers (across the curriculum; for ISCED levels 1-3)
	TBD	Proportion of intended instructional time using ICT (across the curriculum; for ISCED levels 1-3)

■ **Additional indicator**

Comments

For more information on UIS statistics of ICT in education, please visit the UIS website:

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