Mapping national education programmes to UIS education surveys

UIS Regional Workshop on Education for Pacific countries

Nadi (Fiji), 4-9 December 2016

Tin Nam Ho

Outline

❖ Quick review of ISCED

❖ Mapping exercise

Each country team working on their own mapping and UIS questionnaires (in parallel: bilateral meetings)

What is ISCED?

ISCED International Standard Classification of Education

FRAMEWORK to facilitate comparisons of education statistics across countries

METHODOLOGY for translating national educational programmes (and resulting qualifications) into an internationally comparable set of categories

Developed and maintained by the UNESCO Institute for Statistics (UIS)

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ISCED levels

ISCED 1997 (old)	ISCED 2011(new)
	0 Early childhood education
	01 Early childhood educational development
	(designed for children aged under 3 years)
0 Pre-primary	**02 Pre-primary**
(designed for children aged 3 years and above)	(designed for children aged 3 years and above)
1 Primary **(or 1st stage of basic education)**	**1 Primary**
2 Lower secondary **(or 2nd stage of basic education)**	**2 Lower secondary**
3 Upper secondary	**3 Upper secondary**
4 Post-secondary non-tertiary	**4 Post-secondary non-tertiary**
5 First stage of tertiary	**5 Short cycle tertiary** **6 Bachelor's or equivalent level** **7 Master's or equivalent level**
6 Second stage of tertiary	**8 Doctoral or equivalent level**

Link between ISCED and UIS Q

❖ Country maps national programmes to ISCED questionnaire

❖ Country compiles data in UIS questionnaires QA, B, C, T based on ISCED 2011, i.e. data reported in UIS questionnaires should correspond to ISCED 2011

TABLE 1: NATIONAL EDUCATION PROGRAMMES ACCORDING TO ISCED 2011
All formal education programmes (including adult formal education)

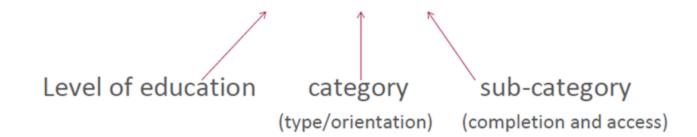|															
				Programme information							classification according to ISCED 2011				
Name of the programme in national language	Name of the programme in English	Minimum entrance requirements if applicable, in national language	Minimum entrance requirements if applicable, in English	Name of the qualification awarded at end of programme in national language (fill in multiple lines if more than one qualification)	Name of the qualification awarded at end of programme in English (fill in multiple lines if more than one qualification)	Theoretical entrance age	Theoretical duration	ISCED 2011 level	ISCED 2011 type or orientation (where applicable)	ISCED 2011 level completion and position in national degree structure	Does the programme provide direct access to higher ISCED 2011 level(s)? (for levels 2–4 only)	Minimum ISCED 2011 level of training required to teach that programme	Notes	ISCED 2011 Programme three–digit code	ISCED 2011 Educational Attainment three–digit code
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre School	Pre School	3	3	na	na	3	3	0	Pre-primary	-	-	4		020	020
Primary (Year 1 to 6)	Primary (Year 1 to 6)	6	6	na	na	6	6	1	-	Full completion	-	4		100	100
Primary (Year 7 and 8)	Primary (Year 7 and 8)	12	12	na	na	12	2	2	General	Partial completion	-	4		242	242
Secondary (Year 9 to 10)	Secondary (Year 9 to 10)	14	14	na	na	14	2	2	General	Full completion	Yes, to ISCED 3	4		244	244

2016 SURVEY OF FORMAL EDUCATION

UIS/ED/A — Students and Teachers (ISCED 0-4)

UIS/ED/B — Educational Expenditure (ISCED 0-8)

UIS/ED/C — Students and Teachers (ISCED 5-8)

UIS/ED/T — Supplementary Questionnaire on Teachers

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ISCED three-digit code

$$2\ 5\ 4$$

Level of education   category   sub-category

(type/orientation)   (completion and access)

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Completion and access (third digit)

Two new concepts in ISCED 2011:

Completion of an ISCED level

* Successful completion of a programme at the given ISCED level which meets the minimum duration criteria for the level
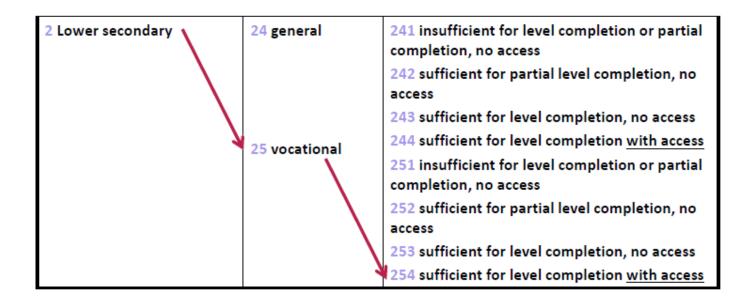
Access to higher levels of education

* Programmes which give access to other programmes at higher ISCED levels (Note: In the case of ISCED 3 access is to programmes at ISCED 5, 6 or 7)

* (Source: paras 56-65, ISCED 2011)

ISCED three-digit code

2 5 4

2 Lower secondary	24 general	241 insufficient for level completion or partial completion, no access
		242 sufficient for partial level completion, no access
		243 sufficient for level completion, no access
		244 sufficient for level completion with access
	25 vocational	251 insufficient for level completion or partial completion, no access
		252 sufficient for partial level completion, no access
		253 sufficient for level completion, no access
		254 sufficient for level completion with access

UIS QA (ISCED 0-4)

(Level) increasing complexity --->
Foundational   Complex

ISCED 2011 level	01	02	1	2	3	4
ORIENTATION				Gen/Voc	Gen/Voc	Gen/Voc
COMPLETION - ACCESS - POSITION				No completion /Partial completion, no access / Yes completion, no access /Yes completion, access	No completion / Partial completion, no access / Yes completion, no access/ Yes completion, access	No completion / Yes completion, no access/Yes completion, access
TYPE OF PROGRAMME	ECED	Pre-primary				
REMARKS	Children aged 0 to 2 years old Learning environment: visually stimulating, language rich Excludes programmes of childcare Programme intensity (2 hours/day) and duration (100 days/year)	Children aged at least 3 years old Focus on improved use of language and social skills Development of logic and reasoning skills Introduction to alphabetical and mathematical concepts	Typical duration 4 to7 years. When a national primary education programme lasts for 8 years or longer, the final grades are to be classified as ISCED 2 (e.g. the first six grades as ISCED 1 and the last two grades as ISCED 2).	Duration of at least 2 years, cumulative duration from start of ISCED 1 is 8 to 11 years	Duration of at least 2 years, cumulative duration from start of ISCED 1 is 11 to 13 years Minimum entrance requirement to tertiary Transition from ISCED 2 to ISCED 3 coincides with the transition point in an education system at which programmes offer students more varied, specialised and in-depth instruction in specific subjects or fields.	Prepare for labour market entry and tertiary education Aims at the individual acquisition of knowledge, skills and competencies lower than the level of complexity characteristic of tertiary education

For completion:
ISCED 2 and 3: the programme has a duration of at least two years
AND the cumulative duration since the start of ISCED 1 is at least 8 years for ISCED 2 programmes and 11 years for ISCED 3 programmes
If the programme do not meet these criteria, it is classified as no level completion
If the programme meet these criteria BUT is part of a sequence of programme within the same ISCED level it is classified as partial completion
If the programme meet these criteria BUT is a terminal programme (to labour market) OR leads to ISCED 4 it is classified as completion without direct access
If the programme meet these criteria AND leads to higher ISCED level it is classified as completion with direct access

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UIS QC (ISCED 5-8)

(Level) increasing complexity --->
Foundational   Complex

ISCED 2011 level	5	6	7	8
ORIENTATION	Gen/Voc	Acad./Prof/Unspec.	Acad./Prof/Unspec.	Acad./Prof/Unspec.
COMPLETION - ACCESS - POSITION	No completion / Completion	No level completion / First degree/ Long first degree/ Second or further degree	No level completion / Long first degree/ Second or further degree (after Bachelor) / Second or further degree (after Master)	No completion / Completion
TYPE OF PROGRAMME				
REMARKS	Minimum of 2 years full-time equivalent duration Requires successful completion of ISCED 3 or 4 with access to tertiary education More complex content than ISCED	First tertiary degrees at the Bachelor level have a minimum of 3 years full-time equivalent duration Do not usually give direct access to Doctorate programmes at ISCED 8	First tertiary degrees at the Master level have a minimum duration of at least 5 years full-time equivalent	Full doctoral degrees have a minimum duration of at least 3 years full-time equivalent

Example: Fiji

❖ Map national programmes into UIS QA and QC

TABLE 1: NATIONAL EDUCATION PROGRAMMES ACCORDING TO ISCED 2011														
All formal education programmes (including adult formal education)														
Programme information							classification according to ISCED 2011							
Name of the programme in English	Minimum entrance requirements if applicable, in national language	Minimum entrance requirements if applicable, in English	Name of the qualification awarded at end of programme in national language (fill in multiple lines if more than one qualification)	Name of the qualification awarded at end of programme in English (fill in multiple lines if more than one qualification)	Theoretical entrance age	Theoretical duration	ISCED 2011 level	ISCED 2011 type or orientation (where applicable)	ISCED 2011 level completion and position in national degree structure (where applicable)	Does the programme provide direct access to higher ISCED 2011 level(s)? (for levels 2-4 only)	Minimum ISCED 2011 level of training required to teach that programme	Notes		ISCED 2011 Programme three-digit code
2	3	4	5	6	7	8	9	10	11	12	13	14		15
Pre School	3	3	na	na	3	3	0	Pre-primary	-	-	4			020
Primary (Year 1 to 6)	6	6	na	na	6	6	1	-	Full completion	-	4			100
Primary (Year 7 and 8)	12	12	na	na	12	2	2	General	Partial completion	-	4			242
Secondary (Year 9 to 10)	14	14	na	na	14	2	2	General	Full completion	Yes, to ISCED 3	4			244
Secondary (Year 11 to 12)	16	16	Fiji School Leaving Certificate	Fiji School Leaving Certificate	16	2	3	General	Full completion	Yes, to ISCED 4 only	4			343
Secondary (Year 13)	Fiji School Leaving Certificate	Fiji School Leaving Certificate	Fiji Seventh Form Certificate (Form 7)	Fiji Seventh Form Certificate (Form 7)	18	1	3	General	Full completion	Yes, to ISCED 4 and 5, 6, 7 (tertiary)	5			344
Technical vocational education (TVET)	Completion of year 11	Completion of year 11	Technical vocational certificate	Technical vocational certificate	17	2	3	Vocational	Full completion	No	5			353

Exercise

❖ 1)Each country team work to map national programmes into blank UIS QA and QC provided

❖ 2)Data source file

❖ In parallel: bilateral meetings

❖ Complete answer available for Fiji at end of exercise

Thank you!

For any questions about ISCED, please contact:

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ISCED is <u>not</u>…

- A model for the ideal education system

- A means of measuring the quality of an education programme

- The definition of the coverage of the UIS or other education surveys

- An ideal model for reporting national statistics on education

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ISCED 2011 level 0

Early childhood education:

➢ Typically designed to support children's early educational development and introduce young children to organized instruction outside of the family context

➢ Educational programmes targeting children below the age of entry into ISCED level 1

➢ School-based or otherwise institutionalized setting (centre-based, community-based, home-based)

➢ Programmes provide an organized and purposeful set of learning activities in a safe physical environment

➢ Programme intensity (2 hours/day) and duration (100 days/year)

ISCED 2011 level 0

❖ Two categories (types):

➢ **Early childhood educational development**

- Educational content designed for children aged 0-2 years
- Learning environment: visually stimulating, language rich
- Emphasis on use of language/meaningful communication
- Opportunities for active play, development of motor skills
- Excludes programmes of childcare

➢ **Pre-primary**

- Educational content designed for children aged at least 3 years
- Focus on improved use of language and social skills
- Development of logic and reasoning skills
- Introduction to alphabetical and mathematical concepts
- Physical exercise and play used as learning opportunities

ISCED 2011 level 1

Primary education:

➢ Typically designed to provide students with fundamental skills in reading, writing and mathematics and understanding of core areas of knowledge

➢ Instruction often organized around units, projects or broad learning areas, typically by one main class teacher

➢ Age is typically the only entry requirement

➢ Duration 4-7 years

➢ Includes literacy, second chance or re-integration programmes

ISCED 2011 level 2

Lower secondary education:

> Educational aim to lay the foundation for lifelong learning and human development

> Usually organized around a more subject-oriented curriculum

> Teachers are often qualified in specific subjects as well as pedagogy

> Cumulative duration from start of ISCED 1: 8 to 11 years

> Includes second chance or re-integration programmes

ISCED 2011 level 3

Upper secondary education:

- Typically designed to complete secondary education in preparation for tertiary education, or to provide skills relevant to employment, or both

- More differentiated than lower secondary, with an increased range of options and streams available

- Entry requirement: ISCED 2

- Cumulative duration since the beginning of ISCED level 1: 11-13 years

- Teachers often highly qualified in subjects

- Includes second chance or re-integration programmes

ISCED 2011 level 4

Post-secondary non-tertiary education:

- ➢ Provides learning experiences building on secondary education preparing for labour market entry as well as tertiary education

- ➢ Aims at the individual acquisition of knowledge, skills and competencies below the high level of complexity characteristic of tertiary education

- ➢ Typically designed to provide individuals who completed ISCED level 3 with the qualifications that they require for progression to tertiary education or for employment when their ISCED level 3 qualification does not grant such access

ISCED 2011 level 5

Short cycle tertiary education:

➤ Minimum of 2 years full-time equivalent duration

➤ often designed to provide participants with professional knowledge, skills and competencies

➤ Typically practically based, occupationally specific and prepares students to enter the labour market

➤ May provide pathways to other tertiary education programmes

➤ Includes academic programmes below bachelor or equivalent.

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ISCED 2011 level 6

Bachelor or equivalent:

➢ First (tertiary) degrees at the Bachelor level have a minimum of 3 years full-time equivalent duration

➢ Often designed to provide participants with **intermediate** academic and/or professional knowledge, skills and competencies

➢ Typically theoretically based but may include practical components and are informed by state of the art research and/or best professional practice

➢ Traditionally offered by universities and equivalent tertiary institutions

➢ Do not usually give direct access to Doctorate programmes at ISCED level 8

ISCED 2011 level 7

Master or equivalent:

- ➢ First tertiary degrees at the Master level have a minimum duration of at least five years full-time equivalent

- ➢ Often designed to provide participants with **advanced** academic and/or professional knowledge, skills and competencies

- ➢ May have a substantial research component, but do not yet lead to the award of a doctoral qualification.

- ➢ Typically are theoretically based but may include practical components and are informed by state of the art research and/or best professional practice.

- ➢ Traditionally offered by universities and equivalent tertiary institutions

- ➢ Usually provide access to Doctorate programmes at ISCED level 8

ISCED 2011 level 8

Doctoral or equivalent:

- ➢ Full doctoral degrees have a minimum duration of at least three years full-time equivalent

- ➢ Designed to lead primarily to an **advanced research qualification**

- ➢ Devoted to advanced study and original research

- ➢ Theses are a significant contribution to knowledge and are of publishable quality

- ➢ Typically offered by research-oriented universities and equivalent tertiary education institutions

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What are international statistical standards?

❖ They should be common frameworks for collecting and organising information about a particular statistical system

❖ They should facilitate exchange and comparability of statistical information between countries and agencies

❖ They are applied to the structure and content of data and metadata, and perhaps to the statistical production process

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Definitions of International Standards

❖ 'Standards refer to a comprehensive set of statistical concepts and definitions used to achieve uniform treatment of statistical issues within a survey or across surveys, and across time and space. Standards assist in maximising the effectiveness of statistical outputs and the efficiency of the production process in terms of inter-temporal, national and international comparability and coherence (i.e. the capacity for integration) of the statistics.'

- Guidelines for the Template for a Generic National Quality Assurance Framework (NQAF)

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Definitions of International Standards

❖ 'A statistical standard provides a comprehensive set of guidelines for surveys and administrative sources collecting information on a particular topic.'

- OECD Glossary of Statistical Terms

Definitions of International Standards

❖ ' A statistical classification is a classification having a set of discrete categories, which may be assigned to a specific variable registered in a statistical survey or in an administrative file, and used in the production and presentation of statistics.'

   - UN Statistical Commission

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What benefits do international statistical standards provide?

❖ Ensure a standardised and consistent approach to classifying and reporting statistical data

❖ Support policy and decision-making, inform debate and create knowledge

❖ Enable development of national standards and classifications

❖ Inform government and society with statistics that are practical, relevant and well-defined

❖ Facilitate international comparability

❖ They reduce proliferation of data that is incomplete and/or inconsistent

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What benefits do international statistical standards provide?

❖ Create flexibility to integrate and reuse data more effectively at the international level

❖ They facilitate international collaboration between agencies and national statistical offices

❖ Assist capability, education and knowledge sharing

❖ Enable leveraging of systems and processes to promote efficiency and save resources

❖ That they are not necessarily a 'one-stop, fix all' solution ie use the bits that are relevant

What issues and challenges do they create?

❖ Difficulty in understanding the need for them

❖ Difficulty in obtaining international consensus

❖ Lack of a central repository for them

❖ Time taken to review and implement

❖ Identifying the 'official' standard when there is a proliferation of like standards

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What issues and challenges do they create?

❖ Persistent and pervasive underutilisation of international statistical standards

❖ Complexity of frameworks such as ISCED or SNA, and lack of relevance for smaller or developing countries

❖ No process for agreeing on where and how they will be used or implemented

❖ Lack of support by national agencies for UNESCO, UNSD, ILO etc to implement

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Some elements for improvement

❖ Need for a process to rationalise conflicting terms

❖ Need clarity about when and where to use international standards

❖ Identify new ways of developing to make it easier to adopt

❖ Identify better ways of international collaboration and discussion

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Programme orientation (second digit)

The degree to which a programme is specifically oriented towards a predetermined class (or groups)

of occupations or trades

o 2 possible types of **_ORIENTATION_** for programme content. They are:

☐ General

☐ Technical / Vocational

2. What are the key elements of ISCED 2011?

❖ **Units of classification**

❖ **Scope of education in ISCED**

❖ **ISCED levels**

❖ **Cross-classification variables**

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Units of classification (1)

❖ **Educational** <u>programme</u>

NEW (2011)

'A coherent set or sequence of educational activities that are designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period.'

OLD (1997)

'An array or sequence of educational activities which are organised to accomplish a pre-determined objective or a specified set of educational tasks.'

❖ **Related Recognized <u>Qualifications</u>**

'The official confirmation, usually in the form of a document, certifying the successful completion of an educational programme or of a stage of a programme.'

- 'They may be obtained through: successful completion of a full programme or a stage of a programme (intermediate qualifications) or by the validation of knowledge, skills and competencies, independent of participation in such programmes.'

➢ Not credits

ISCED attempts to classify the **curriculum content** of education Programmes

Usually by using **proxy criteria** (main and subsidiary criteria)

Cross-classification variables

ISCED 1997	ISCED 2011
Orientation (ISCED 2-4 only) ❖ **General** ❖ **Prevocational**	**Orientation (ISCED 2-8)** ❖ **General/academic**
❖ **Vocational**	❖ **Vocational/professional**
Destination ❖ **A** (on <u>direct</u> path to ISCED 6) ❖ **B** (leading <u>directly</u> to a higher ISCED level but not on a direct path to ISCED 6)	**Completion/access to higher ISCED levels** ❖ **Level completion <u>and</u> access to higher ISCED level** (whether on direct path to ISCED 8 or not)
❖ **C** (no <u>direct</u> access to higher ISCED levels)	❖ **Level completion** (but no <u>direct</u> access to higher ISCED levels) ❖ **Partial level completion** (no <u>direct</u> access to higher ISCED levels) ❖ **No level completion** (nor <u>direct</u> access to higher ISCED levels)

Position in the national degree structure

There are four sub-categories (ISCED 6-7 only):

- ➢ **First** degree/qualification programme – bachelor or equivalent
- ➢ **Long first** degree/qualification programme – bachelor (>4 years) or master (≥5 years), or equivalent
- ➢ **Second or further** degree/qualification programme – following a bachelor or equivalent programme
- ➢ **Second or further** degree/qualification programme – following a master or