Joint Eurostat-OECD

guidelines on the measurement of educational attainment

in household surveys

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GUIDELINES ON THE MEASUREMENT OF EDUCATIONAL ATTAINMENT

ACCORDING TO ISCED 2011

Manual for EU and OECD countries

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Introduction

Eurostat, the Organisation for Economic Cooperation and Development (OECD) and all their respective Member States have significantly contributed to the review of the International Standard Classification of Education (ISCED). The implementation of ISCED 2011 presents a valuable opportunity to improve the comparability of EU and OECD statistics on education and training and to provide more consistent and harmonised metadata. The latter will help to ensure better quality of data disseminated by international organisations.

The General Conference of UNESCO Member States adopted ISCED 2011 on 10 November 2011.

A revised classification of the ISCED fields of education and training (ISCED-F) was adopted by the General Conference of UNESCO Member States at their following meeting in November 2013. ISCED 2011 is implemented in EU and OECD data collections from 2014, whilst ISCED-F will be used from 2016. Until then, EU and OECD surveys will use the categories from the fields of education and training (FOET) 1999 classification.

Paragraph 6 of the ISCED 2011 particularly encourages the development of implementation manuals.

These guidelines on the measurement of educational attainment describe how educational attainment definitions from the ISCED 2011 document should be implemented in household surveys. They apply to the relevant sources in the EU and OECD countries.

UNESCO, the OECD and Eurostat have developed a joint ISCED 2011 operational manual for mapping programmes and qualifications to ISCED levels. References to this manual are included in this document, in particular in relation to borderline cases.

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1. ISCED 2011 CONCEPTS AND DEFINITIONS RELATED TO EDUCATIONAL ATTAINMENT

This section reviews the concepts and definitions provided by ISCED 2011 (*in italics*). The paragraphs '① **Comments and clarifications**' give additional information relating to the implementation of these concepts.

1.1 Basic concepts in ISCED 2011 that are of particular relevance to educational attainment

*§3. ISCED classifies **education programmes** by their content using two main cross-classification variables: **levels of education** and **fields of education**. … It also introduces a related classification of educational attainment levels based on **recognised educational qualifications**.*

➢ Education programmes and courses/modules

*§11. In ISCED, an **education programme** is defined as a coherent set or sequence of educational activities designed and organised to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period. ... <u>A common characteristic of an education programme is that</u>, upon fulfilment of learning objectives or educational tasks, <u>successful completion is certified.</u>*

§18. <u>Within an education programme</u>, educational activities may also be grouped into <u>subcomponents variously described in national contexts as 'courses', 'modules', 'units' and/or 'subjects'</u>. In ISCED a 'course' is equivalent in meaning to a 'module', 'unit' and/or 'subject'.

➢ Levels of education

Levels of education (from ISCED 2011 glossary): An ordered set grouping education programmes in relation to gradations of learning experiences, as well as the knowledge, skills and competencies which each programme is designed to impart. The ISCED level reflects the degree of complexity and specialisation of the content of an education programme, from foundational to complex.

➢ Qualification (or credential)

***Qualification** (from ISCED 2011 glossary): The official confirmation, usually in the form of a document, certifying the successful completion of an education programme or a stage of a programme. Qualifications can be obtained through: i) successful completion of a full education programme; ii) successful completion of a stage of an education programme (intermediate qualifications); or iii) validation of acquired knowledge, skills and competencies, independent of participation in such programmes. This may also be referred to as a 'credential'.*

*§21. ISCED 2011 considers the **recognised qualifications** corresponding to an education programme as a related unit of the classification. <u>In ISCED, the term 'qualification' is synonymous with 'credential'. Other terms such as 'certificate', 'degree' or 'diploma' are types of qualification and are treated as being synonymous with each other within ISCED. The classification of **qualifications officially recognised by the relevant national education authorities** is the basis for statistics on educational attainment.</u>*

➢ ISCED mappings

*§22. In ISCED, education programmes are classified first and qualifications are subsequently classified. **__The ISCED mapping is the tool to show the links between education programmes and qualifications__**. Normally one education programme leads to one qualification. However, in some cases several programmes can lead to the same qualification, and one programme can lead to a number of different qualifications.*

➢ Scope of ISCED

§35. ISCED 2011 covers formal and non-formal education programmes offered at any stage of a person's life. Qualifications which are recognised by the relevant national education authorities, however they are obtained (e.g. by successful completion of a formal education programme or via a non-formal education programme or informal learning activity) are used for the purpose of measuring educational attainment. ISCED does not cover programmes of informal, incidental or random learning, nor qualifications which are not recognised.

Formal education (from ISCED 2011 glossary): Education that is institutionalised, intentional and planned through public organisations and recognised private bodies and - in their totality - constitute the formal education system of a country. Formal education programmes are thus recognised as such by the relevant national education authorities or equivalent authorities, e.g. any other institution in cooperation with the national or sub-national education authorities. Formal education consists mostly of initial education. Vocational education, special needs education and some parts of adult education are often recognised as being part of the formal education system.

§296. While non-formal education is a recognised part of ISCED, it is likely that international data collection exercises (mappings, surveys and censuses etc.) will restrict their coverage to formal programmes for the sake of international comparability and feasibility. The boundary between formal and non-formal programmes is therefore important and should be given specific attention. However, at this stage, ISCED 2011 does not give specific advice on the development of mappings for non-formal programmes or any related non-formal qualifications.

① **Comments and clarifications**

- **Only qualifications (whether obtained through formal, non-formal or informal processes) recognised by national authorities in the formal education system are to be considered for educational attainment classification under ISCED.**

- Qualifications obtained via non-formal or informal processes or via validation of competencies and recognised as equivalent to qualifications from formal education are relatively rare at present but are expected to become more common in the future. A separate sheet of ISCED integrated mappings is needed to give information on the most important such qualifications in each country (i.e. those likely to have an impact on data on educational attainment).

1.2 Concepts directly related to educational attainment

ISCED 2011 has introduced a new classification of educational attainment (ISCED-A). 'Successful completion of an education programme' and 'successful completion of an ISCED level' are important concepts. In order to avoid any misunderstanding, guidelines are needed for their interpretation and application.

➢ Successful completion of an education programme

§56. The requirements for successful completion of an education programme, i.e. achievement of its learning objectives, are normally stipulated in the programme specifications and usually include:

- *attendance requirements (enrol and regularly attend through the final year of a programme); and/or*

- *demonstrated acquisition of expected knowledge, skills and competencies.*

§57. The acquisition of the knowledge, skills and competencies forming the learning objective of an education programme is normally validated by:

- *passing (i.e. succeeding in) a final, curriculum-based examination or series of examinations;*

- *accumulating the specified number of study credits; or*

- *a successful formal assessment of the knowledge, skills and competencies acquired.*

In formal education, successful completion usually results in a qualification that is recognised by the relevant national education authorities.

§58. Education programmes at ISCED levels 1 and 2 (and occasionally at ISCED levels 3 or 4) do not always conclude with a qualification. In these cases, other criteria in place of qualifications should be used to determine successful completion; for example, having attended the full final year of the programme or having access to a higher level of education.

➢ Successful completion of an ISCED level

§59. Successful completion of programmes at ISCED levels 1 to 3 is considered as level completion when the qualification obtained is designed to provide direct access to a higher ISCED level. In the case of ISCED level 3, 'higher ISCED level' is taken to mean ISCED levels 5, 6 or 7. Qualifications are considered as giving access to a higher ISCED level even if this access is limited to only some of the programmes at the higher ISCED level. Successful completion of programmes classified at ISCED levels 4-8 is considered as level completion. However, for educational attainment, recognised qualifications obtained before completing the programme (e.g. from the successful completion of a stage of the programme resulting in a recognised intermediate qualification) are classified at a lower ISCED level. When a qualification obtained does not provide direct access to a higher ISCED level, successful completion of programmes may be considered as level completion (without access) or no level completion. At ISCED level 2 and 3 only, qualifications which do not give access to a higher ISCED level may be considered as level completion (without access), partial level completion or no level completion.

§60. Education programmes and corresponding qualifications within ISCED levels 2 and 3 are distinguished by four subcategories:

1. **no level completion** *(and thus without direct access to a higher ISCED level — which in the case of ISCED 3 is to levels 5, 6 or 7);*

2. **partial level completion without direct access** *to a higher ISCED level;*

3. **level completion without direct access** *to a higher ISCED level; and*

4. **level completion with direct access** *to a higher ISCED level (which in the case of ISCED 3 is to first tertiary programmes at levels 5, 6 or 7).*

*§61. Successful completion of programmes at ISCED levels 2 or 3 which do not give access to programmes at a higher ISCED level (which in the case of ISCED level 3 is ISCED levels 5, 6 or 7) is considered as level completion or partial level completion if the programme meets the following criteria: i) the programme has **a duration of at least 2 years** of study at the given ISCED level; and ii) the cumulative duration since the start of ISCED level 1 is at least 8 years for ISCED level 2 programmes and at least 11 years for ISCED level 3 programmes. Successful completion of shorter programmes at either ISCED level is regarded as the successful completion of the programme only. For educational attainment purposes, any recognised qualifications obtained from the successful completion of short programmes are classified at a lower ISCED level than the programme itself.*

§62. Programmes which:

a) *do not meet the content, minimum duration and cumulative duration criteria are classified as category 1 (no level completion).*

b) *meet the content, minimum duration and cumulative duration criteria, are part of a sequence of programmes within the same ISCED level (but are not the last programme in the sequence), and therefore do not give direct access to a higher ISCED level are classified as category 2 (partial level completion).*

c) *meet the content, minimum duration and cumulative duration criteria and are terminal programmes are classified as category 3 (level completion without direct access). Such programmes usually lead directly to labour market-relevant qualifications.*

d)   are ISCED level 3 programmes giving access to ISCED level 4 programmes only are also classified as category 3 (level completion without direct access).

e)   give direct access to tertiary education at ISCED level 5, 6 or 7 are classified as category 4 (level completion with direct access)

§63. A programme for a specific group of participants (adults or individuals with special needs) may have a shorter or longer duration than similar programmes in regular education at a given ISCED level. However, successful completion of a programme should only count as level completion if the qualification obtained indicates the acquisition of an equivalent level of knowledge, skills and competencies as in regular education programmes at the same level.

§64. Participation in a programme without successful completion does not qualify for level completion or partial completion and - except at ISCED levels 0 and 1 - is not considered when determining educational attainment levels. Thus the educational attainment level of individuals who do not successfully complete a given programme is the highest level achieved before entering the programme.

§65. While the criteria for level completion apply to successful completion and are thus only directly applicable to individuals, education programmes as a whole are classified according to the highest possible qualification they are designed to prepare for, even if some participants will not obtain this qualification.

➢ Concept of educational attainment in ISCED 2011

*§81. **The educational attainment of an individual is defined as the highest ISCED level completed by the individual**. For operational purposes, educational attainment is usually measured with respect to the highest education programme successfully completed, which is typically certified by a recognised qualification. Recognised intermediate qualifications are classified at a lower level than the programme itself.*

§82. An education programme is usually considered to be successfully completed when a student has attended and completed a formal education programme and is awarded a recognised qualification (see also Paragraphs 56 to 58).

§83. Relevant national education authorities may recognise qualifications obtained through non-formal education programmes or through the validation of skills gained by means of informal learning as equivalent to formal educational qualifications. These qualifications are also considered within the concept of educational attainment as defined by ISCED. Qualifications from non-formal education or validation of skills that are not recognised as equivalent to formal qualifications are not within the scope of ISCED (see Paragraph 35).

§84. The ISCED definition of education attainment should be distinguished from other concepts related to an individual's educational achievements. Individual achievements may include education levels attended but not successfully completed, or an individual's actual knowledge, skills and competencies (e.g. levels of literacy and numeracy) as determined through standardised testing or years of schooling.

§85. Individuals who attend only part of an education programme or who do not meet the completion requirements (e.g. fail the final examinations) do not qualify for successful completion of the programme. They should be classified according to the highest ISCED level successfully completed (i.e. before entering the programme that was not successfully completed).

§86. For the classification of educational attainment, level 0 has a different meaning than for the classification of education programmes: it means not having successfully completed ISCED level 1. This includes individuals who have never attended an education programme, who have attended some early childhood education or who have attended some primary education but have not successfully completed ISCED level 1. Several sub-categories are considered for this attainment level.

§87. Educational attainment can be classified according to completed (or partially completed) ISCED level, programme orientation and access to higher ISCED levels. If an individual has successfully completed the same ISCED level more than once (e.g. by taking two different programmes which are normally offered as parallel options), the characteristics of <u>the most recent qualification</u> obtained should be reported.

① **Comments and clarifications on the definition of educational attainment and related concepts**

Most users of statistics expect educational attainment to refer to education programmes which have been successfully completed (e.g. when using statistics on educational attainment to analyse the labour market and social outcomes of education). Nonetheless, other concepts are also relevant and can be used to develop a more complete picture of human capital. For example, it can be useful to capture all the education programmes that individuals have attended, as they all contribute to the acquisition and improvement of competencies. As these guidelines' focus is on the implementation of the classification of educational attainment as outlined in the ISCED 2011, it is relevant first to provide the specific definition of educational attainment, then to review some related concepts in order to help contrasting what educational attainment level is from what it is not.

When measuring educational attainment, the definition below should be used in the implementation and dissemination of survey results. The production of national ISCED mappings will ensure that educational attainment is correctly equated to the ISCED 2011 levels.

The **educational attainment level** of an individual is the highest ISCED level successfully completed, the successful completion of an education programme being <u>validated by a recognised qualification (or credential)</u>, i.e. a qualification officially recognised by the relevant national education authorities.

The concept of a 'successful completion of an education programme' typically corresponds to the situation in which a pupil or student attends and obtains the final credential associated with a formal education programme. In this respect, educational attainment corresponds to the highest level successfully completed in the ISCED ladder.

The following concepts are relevant in the context of the above definition, for contrasting purpose:

- **Education programmes attended (whether or not successfully completed)** - participation in education programmes in the past, not only in the one which led to the highest qualification recorded for educational attainment.

- **Drop-out** - withdrawal from a given education programme without satisfying the conditions for 'full attendance' and without receiving any credential in this programme.

- **Validated skills and competencies** - where a qualification is obtained in recognition of demonstrated skills and competencies not necessarily acquired through enrolment in an education programme.

Information on all these concepts may be important as they relate with aspects of human capital formation. Education programmes attended but not necessarily successfully completed could form the basis for additional analysis of transitions within education systems, drop-out rates, or skills and competencies. This type of information might be collected in specific surveys related to education (e.g. Adult Education Survey - AES, Programme for the International Assessment of Adult Competencies - PIAAC). Results on validated skills and competencies would provide further information on human capital but collecting data on this type of qualifications is difficult, as not all qualifications obtained in this way are equivalent to qualifications from formal education programmes (and therefore cannot always be counted towards educational attainment).

① Criterion of recognised qualification

In most cases, qualifications (certificates, diploma or degrees) obtained upon successful completion of a programme are the best proxies to use in data collection on educational attainment.

In countries where education programmes, in particular those belonging to ISCED levels 1 and 2, do not lead to a qualification, however, the criterion of full attendance of the programme and normally gaining access to a higher level of education may have to be used instead.

Only qualifications recognised by the formal education system - officially recognised by the relevant national education authorities, or recognised as equivalent to another qualification of formal education - define an individual's educational attainment in terms of the ISCED level.

For countries where modular education programmes are offered, the highest educational level successfully completed is validated by the successful completion of all requirements of this level.

§20. Individual credits awarded for successful completion of individual courses (e.g. modules or subjects) are not considered as qualifications within ISCED. In such cases, a sufficient number of credits or subjects equivalent in duration and/or covering the curriculum of a full programme would represent a qualification.

2. BORDERLINE CASES

Classification of educational attainment can sometimes be difficult, because the programmes leading to the qualification are at the boundary between two ISCED levels. Such difficulties can be related to the ISCED concepts themselves (e.g. 'partial level completion' or 'insufficient for level completion') or to the characteristics of the education programme, in so far as they may allow the ISCED criteria to be interpreted in different ways.

To assist countries in dealing with these borderline cases is the very purpose of these guidelines to ensure a homogeneous treatment of these cases across countries concerned for the benefit of international comparability.

Examples of borderline cases are included in the ISCED operational manual produced by the UNESCO Institute for Statistics, OECD and Eurostat. Only a general description of the two main issues is given here, as they relate closely with the implementation of the classification of educational attainment.

2.1 Borderline between ISCED level 2 and 3

ISCED 2011 considers two situations at ISCED level 3 for which the classification of education programmes and educational attainment can raise questions:

A) Insufficient for level completion

Programmes with a cumulative duration within the ISCED level of less than two years (or a cumulative duration since the beginning of ISCED level 1 of less than 11 years) are 'insufficient for level completion' and therefore lead only to attainment at the ISCED level below, i.e. ISCED level 2 educational attainment (244 or 254).

B) Partial level completion

A sequence of programmes within ISCED level 3 might lead to the classification of some of these programmes to 'partial level completion' (342 or 352) in ISCED-P.

This happens when the first part(s) of a sequence of education programmes within ISCED level 3 constitute (combined) at least two years of study at that level, and the cumulative duration (since the beginning of ISCED level 1) is at least 11 years. Successful completion of these first parts of the sequence results in a qualification that is recognised by the relevant national authorities.

If the programme does not lead to any recognised qualifications (or if successful completion is not otherwise formally recognised by the relevant national authorities), the concept 'partial level completion' does not apply. In such cases, educational attainment of ISCED level 3 can only be allocated at the end of the whole sequence of programmes when the corresponding qualification is obtained.

'Partial level completion' at ISCED level 3 exists only in a small number of countries. ISCED 2011 does not provide guidelines on how programmes classified in the category 'partial level completion' should be treated in the collection and dissemination of educational attainment statistics, especially when collected and presented at 1-digit level of ISCED-A, the most frequent case for educational attainment (i.e. whether the 'partial level completion' ISCED level 3 programmes should be classified as ISCED level 2 or 3).

The classification of such programmes remaining an open issue, users of the classification who wish to disseminate results according to a simplified set of educational attainment categories than are allowed for in ISCED-A (i.e. at 1-digit ISCED level) may need to decide how to treat partial level completion. Depending on the main purpose of the analyses to be made, two different approaches are possible:

    i)   Some users may want to know what percentage of the population of interest has successfully completed each ISCED level of education (in the case of sequential programmes successful completion of the final programme in the sequence within the ISCED level). To do this they would need to classify partial level completion at the level below the level of study (i.e. at lower secondary level in the case of partial completion of upper secondary education).

    ii)   Other users may be interested to measure at least some recognised successful study at a given level - especially where this may represent a potential exit point from the education system or 'first-time' graduation within a given ISCED level. They would classify partial level completion at the same ISCED level as the level of study (i.e. at upper secondary level in the case of partial completion of upper secondary education).

Both approaches are valid. It is for the user/analyst to decide which is the more appropriate for their circumstances. For this reason, it is recommended that all statistics relating to secondary education should be accompanied by explanations clarifying the classification of partial completion of ISCED levels 2 and 3.

➢ For more information and examples, please refer to chapter on ISCED level 3 of the ISCED 2011 operational manual.

2.2 Education programmes classified at ISCED level X resulting in attainment at ISCED level X-1

Statisticians working on household surveys should be aware that in some cases the classification of an education programme in ISCED can be different from that of the resulting educational attainment.

In its coding of education programmes, ISCED 2011 contains a special category for levels 2 to 8: 'insufficient for level completion'. The educational attainment associated with successful completion of programmes 'insufficient for level completion', should be classified as ISCED level X-1, even if there are no programmes at level X-1 in that country.

For ISCED levels 2 and 3, the minimum duration (two years within the ISCED level), the minimum cumulative duration since the start of ISCED level 1 (eight years for ISCED level 2 and 11 years for ISCED level 3), and the fact of not providing access to higher ISCED levels are the criteria according to which the programme should be classified as 'insufficient for level completion' (see §154 and 176 of ISCED 2011). The educational attainment associated with successful completion of programmes of this type is classified at the ISCED level below the level of the programme. For example, the educational attainment associated with a vocational ISCED level 3 programme classified as insufficient for level completion (ISCED-P 351) is classified as ISCED-A 254 (level completion of lower secondary vocational education with direct access to upper secondary).

For ISCED level 4, courses or modules of less than six months (full-time) duration are regarded as insufficient for level completion. The educational attainment associated with successful completion of programmes of this type is classified at ISCED level 3 as 'level completion without direct access to tertiary' (i.e. ISCED-P 441 is classified as ISCED-A 343 and ISCED-P 451 is classified as ISCED-A 353).

At ISCED level 5, programmes of less than two years duration are classified as 'insufficient for level completion'. The educational attainment associated with successful completion of programmes of this type is classified as ISCED level 4 'full level completion with direct access to tertiary' (i.e. ISCED-P 541 is classified as ISCED-A 444 and ISCED-P 551 is classified as ISCED-A 454) even if there are no ISCED level 4 programmes in that country.

Where the cumulative duration at tertiary level of an ISCED level 6 (first degree) programme is less than three years, the programme is normally classified as 'insufficient for level completion' and the same applies to an ISCED level 7 (first degree) programme with a cumulative duration at tertiary level of less than five years. The educational attainment associated with successful completion of ISCED level 6 programmes of this type is classified as ISCED level 5 'full level completion' (i.e. ISCED-A 540, 550 or 560) or, if of very short duration, as ISCED level 4 'full level completion with direct access to tertiary' (i.e. ISCED-A 444 or 454), even if there are no ISCED level 4 or 5 programmes in the country. A similar approach should be adopted for classifying the attainment arising from the successful completion of ISCED level 7 first degree programmes which are insufficient for level completion.

At ISCED level 8, programmes that do not meet the criteria of duration (i.e. at least three years of full-time equivalent study, making a total cumulative duration of at least seven years of full-time education at the tertiary level) are considered insufficient for level completion. The educational attainment associated with successful completion of programmes of this type is classified as ISCED level 7 'full level completion' (i.e. ISCED-A 740, 750 or 760).

Particular attention should be given to the classification of education programmes as 'insufficient for level completion' to enhance the consistency of statistics on participation in education and on educational attainment.

For programmes and qualifications at the borderline between ISCED levels 4 and 5, consideration should be given to the following:

- the programme could be classified at ISCED level 4 rather than at ISCED level 5 given that educational attainment is classified at ISCED level 4; and

- the programme might be considered 'sufficient for level completion' due to consideration given to work experience, or due to credit accumulation systems.

- ➢ More examples of the use of the category 'insufficient for level completion' may be found in the ISCED 2011 operational manual, in the chapters relating to the respective ISCED levels.

3. DATA COLLECTION

This section provides information on issues which typically arise during survey interviews. Where appropriate, the main references to the ISCED 2011 text are included (*in italics*).

3.1 Educational attainment for 'old' programmes

§88. Statistics on educational attainment cover individuals of all age groups, some or many of whom may have completed education programmes or obtained qualifications which are different from those currently provided. In order to achieve comparability of indicators over time and across education cohorts, educational attainment should be classified on the basis of the characteristics of education programmes and <u>recognised qualifications at the time of successful completion</u>.

① **Comments and clarifications**

Data collection on educational attainment accommodates both current and past educational structures because the target population of surveys includes individuals of all ages. In order to improve comparability across countries and time periods, qualifications from old education programmes should be classified on the basis of their characteristics <u>at the time of completion</u>. Classifying qualifications from old education programmes on the basis of the ISCED levels of current programmes that might (at national level) be perceived to be equivalent is considered a not appropriate practice as it does not reflect actual educational attainment. This has been discussed in recent years in the context of ISCED 97 and the same guidelines were already provided.

The coding of education attainment resulting from programmes whose requirements have changed over time requires the use of different guidelines, depending on the data source:

- where data is extracted from registers, old qualifications should not automatically be re-allocated to the ISCED level of their 'successor' qualifications. Registers should aim to differentiate between qualifications and programmes before and after changes in educational requirements;

- where data are collected by means of surveys, the survey should offer distinct response categories for old qualifications and their 'successors'. For example, if qualifications with the same name (the old one and the new one, e.g. 'pre-Bologna' and 'post-Bologna') refer to different ISCED levels, the survey should include a question on the year in which the qualification was obtained;

- the method of data collection should allow information on the highest level of education successfully completed to be obtained independently of any other characteristics of the individual, such as occupation (as requirements for those in a given occupation to hold a specific qualification may change over time).

If some countries have already re-classified education programmes/qualifications according to equivalences determined at national level (i.e. on the basis of certain programmes being successors to others) rather than in accordance with ISCED criteria, the impact of this would need to be

documented in the metadata (e.g. by indicating the percentage of the data on tertiary educational attainment which would have been affected). Such practices should, however, be avoided when collecting data on educational attainment in the future.

The integrated ISCED mappings include, from 2014, a separate sheet for information on 'old' qualifications (and related programmes). Even if only 1-digit of ISCED 2011 is requested, countries are encouraged to provide this information, if possible, at the more detailed level. (While the inclusion of this sheet is generally agreed for EU countries, it is optional for OECD countries which are not EU Member States.)

3.2 Qualifications obtained abroad

The proportion of the resident population holding qualifications obtained abroad is growing in most countries, due to greater mobility in employment and education. Practices for classifying the educational attainment of non-nationals vary across countries. Situations where survey interviewers have to decide by themselves during the interview how to classify qualifications obtained in another country or whether to choose the 'no response' category should be avoided in order to improve the quality and the comparability of data on educational attainment.

In the future, a generalised use of integrated ISCED mappings of different countries may improve the quality of statistics on educational attainment. However, at this moment it is not realistic to recommend the implementation of this approach in all countries.

The 'proxies approach' (i.e. number of years of schooling, equivalence to national credentials) currently used is considered good practice for the time being. Countries are encouraged to pay attention to interviewers' guidelines and training in this area.

Additional questions in surveys or additional items in registers - for example, the country in which the qualification was obtained and the year when it was obtained - can help to contextualise educational attainment for qualifications obtained abroad.

The classification within ISCED of qualifications obtained abroad should not be confused with the official recognition of such qualifications. Reference to the recognition of qualifications is to be used only if the interviewee mentions that he or she was successful in such a procedure (or if qualifications obtained in other countries are recorded in the country's register on the basis of official recognition). In other cases, including specific questions on the recognition of qualifications obtained abroad is not recommended, as it would make the survey longer and more burdensome for respondents and interviewers alike.

Sharing ISCED mappings on dedicated websites will allow the main qualifications obtained abroad to be listed (e.g. those obtained in neighbouring countries or countries of origin of major groups of non-nationals). In particular, this would mean that interviewers could be given specific instructions rather than only general guidelines as to how to record such qualifications, at least for the most frequently occurring cases. Sharing mappings would also be useful in the design and preparation of online surveys, e.g. an option could be included in the list of qualifications proposed, such as 'if you obtained your highest qualification abroad, please choose from the following list', followed by a list of the most frequent qualifications by country.

The method described above should be used for populations likely to have a significant impact on results, in order to avoid the bias in results which could arise from the interviewee's or interviewer's own interpretations or due to the need to deal with large volumes of replies to open-ended questions (requiring expensive post-coding).

3.3 Importance of information on the orientation of the education completed

General education (from ISCED 2011 glossary): *Education programmes that are designed to develop learners' general knowledge, skills and competencies, as well as literacy and numeracy skills, often to prepare students for more advanced education programmes at the same or higher ISCED levels and to lay the foundation for lifelong learning. General education programmes are typically school- or college-based. General education includes education programmes that are designed to prepare students for entry into vocational education, but that do not prepare for employment in a particular occupation, trade or class of occupations or trades, nor lead directly to a labour market-relevant qualification.*

Vocational education (from ISCED 2011 glossary): *Education programmes that are designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade or class of occupations or trades. Vocational education may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour-market-relevant vocational qualifications acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market.*

ⓘ Comments and clarifications

Especially when producing statistics on young people, data should be collected not only on the level of educational attainment but also on the orientation (general or vocational) of the highest level of education completed (in particular for ISCED levels 3, 4 and 5 where it is an explicit feature) and on the respective fields of these studies (which is of particular relevance for ISCED levels 6 to 8, where orientation is more difficult to define).

This information is particularly important for the analysis of:

- the responsiveness of education systems to labour market needs for skills and competencies;

- the transition from education to work;

- the matching of skills with jobs;

- access to and inequalities in education; and

- patterns of people returning to education.

A. Guidelines are needed for collecting information in sample surveys on the orientation of the education programme completed by a respondent.

Information on the orientation of an individual's education can be derived from household or individual surveys if the name of the actual education programme completed (or qualification gained) is asked during the interview.

Using a 'diploma approach' would guarantee the quality of this information (see section 3.5). Asking interviewees themselves to distinguish between general and vocational education, in respect of the education they have completed, may result in inaccurate information. Deriving the orientation of the education from information on the exact education programme successfully completed or qualification obtained is therefore considered the best solution.

B. Double qualifications at the same ISCED level

In the case of vocational and general programmes completed at the same ISCED level, ISCED 2011 recommends reporting the most recent qualification. This solution seems to be appropriate, as in the majority of cases the vocational education (in general the most relevant for the labour market) is the most recent. This applies in particular to ISCED level 3 but also to ISCED levels 2, 4 and 5.

In several countries, some education programmes lead to general and vocational qualifications at the same time. In such cases, vocational educational attainment should take precedence (i.e. the

qualification should be recorded as a vocational one), based on the assumption that it is of more direct relevance to the labour market.

Where two vocational qualifications are obtained from programmes at the same ISCED level, the most recent qualification should be reported on (i.e. should be used for completing the variable 'year of the successful completion of the highest educational level' and for giving the field of this education programme).

C.   Orientation in tertiary education: academic or professional

Initial discussions on this issue at international level showed that many countries question both the usefulness and feasibility of making such a distinction. At present, there is no agreed upon definition for academic and professional at the higher ISCED levels (6 to 8).

The main characteristic recorded in household surveys for education programmes completed at tertiary level is field of studies. However, it is important to note that there is not necessarily a link between the fields of education and academic/professional orientation.

3.4 Coding of educational attainment

The following coding of educational attainment is used under ISCED 2011. See also Annex III of ISCED 2011 (http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf).

0 Less than primary education

    01 Never attended an education programme

        010 Never attended an education programme

    02 Some early childhood education

        020 Some early childhood education

    03 Some primary education (without level completion)

        030 Some primary education (without level completion)

1 Primary education

    10 Primary

        100 Including recognised successful completion of a lower secondary programme insufficient for level completion or partial level completion

2 Lower secondary education[1]

    24 General[1]

        242 Partial level completion, without direct access to upper secondary education

        243 Level completion, without direct access to upper secondary education

        244 Level completion, with direct access to upper secondary education[1]

    25 Vocational[1]

        252 Partial level completion, without direct access to upper secondary education

        253 Level completion, without direct access to upper secondary education

        254 Level completion, with direct access to upper secondary education[1]

3 Upper secondary education[1]

    34 General[1]

        342 Partial level completion, without direct access to tertiary education

        343 Level completion, without direct access to tertiary education

        344 Level completion, with direct access to tertiary education[1]

    35 Vocational[1]

        352 Partial level completion, without direct access to tertiary education

        353 Level completion, without direct access to tertiary education

        354 Level completion, with direct access to tertiary education[1]

4 Post-secondary non-tertiary education[1]

    44 General[1]

        443 Level completion, without direct access to tertiary education

        444 Level completion, with direct access to tertiary education[1]

    45 Vocational[1]

        453 Level completion, without direct access to tertiary education

        454 Level completion, with direct access to tertiary education[1]

5 Short-cycle tertiary education[1]

    54 General[1,2]

        540 Not further defined[1]

    55 Vocational[1,2]

        550 Not further defined[1]

    56 Orientation unspecified[1,2]

        560 Not further defined[1]

6 Bachelor's or equivalent level[1]

    64 Academic[1]

        640 Not further defined[1]

    65 Professional[1]

        650 Not further defined[1]

    66 Orientation unspecified[1,2]

        660 Not further defined[1]

7 Master's or equivalent level[1]

    74 Academic[1]

        740 Not further defined[1]

    75 Professional[1]

        750 Not further defined[1]

    76 Orientation unspecified[1,2]

        760 Not further defined[1]

8 Doctoral or equivalent level[1]

    84 Academic[1]

        840 Not further defined

    85 Professional[1]

        850 Not further defined

    86 Orientation unspecified[1,2]

        860 Not further defined

9 Not elsewhere classified

    99 Not elsewhere classified

        999 Not elsewhere classified

[1] *Including successful completion of a programme at the given level sufficient for level completion or successful completion of a programme or a stage of a programme at a higher ISCED level insufficient for completion or partial completion of the higher level.*

[2] *To be used in the absence of internationally-agreed definitions for academic and professional orientations at the tertiary level.*

3.5 Recommendation for the use of a 'diploma approach'

Methods used for the collection of information on educational attainment in sample surveys vary across countries. The standard system illustrated below is widely used, whereas integrated systems have been developed in only a small number of countries (including France and the United Kingdom).

(a) <u>Standard question (structured on ISCED levels):</u>

<u>What is the highest level of education you successfully completed?</u>

☐   No formal education or below ISCED1

☐   ISCED 1 - primary education

☐   ISCED 2 - lower secondary education, programme X

………

☐   ISCED level 3 - upper secondary education, programme Y

……….

☐   ISCED 7 - master or equivalent

☐   ISCED 8 - doctor or equivalent

A different number of categories may be offered as possible answers, depending on the national education system and on the required level of detail of the information. For example, the EU-LFS has 13 categories, while the EU manual on core variables in social surveys proposes a minimum of seven categories (levels at 1-digit in ISCED 97).

(b) <u>Integrated system (diploma approach):</u>

<u>Do you have any qualifications (e.g. certificates, diplomas, degrees)?</u>

☐ *Yes*

     If yes, please tick the highest qualification you obtained:

     ....

     ☐ Qualification x (from vocational upper secondary education (ISCED level 3 - 353)

     ☐ Qualification y (from vocational upper secondary education (ISCED level 3 - 354)

     ☐ Qualification z (from general upper secondary education (ISCED level 3 - 344)

     …..

     ☐ Bachelor   (+ field: e.g. law)

     ☐ Master   (+ field: e.g. sciences)

     ☐ Doctorate   (+field: e.g. economy)

     ☐ etc..   (exhaustive list)

☐ No

     If no, which education programme did you successfully complete?

     (e.g. primary or lower secondary education if no certification exists)

Some countries prefer to ask for all the qualifications obtained, in order to then derive the highest level attained by each individual. Others use two questions: one on participation in formal education <u>and</u> one on successful completion of the highest level of education programme. Both approaches are

equivalent to the integrated system presented above, provided that a detailed list of programmes and qualifications is proposed.

Where there are numerous possible replies, the software programme can pre-select a set of possible replies matching a given key word (e.g. bachelor). It is considered possible to implement such an approach using the integrated ISCED mappings (both for recently obtained qualifications and for qualifications which no longer exist).

Methods for measuring the 'highest level of education successfully completed' vary quite considerably across countries and surveys. The Eurostat Task Force on the improvement of Educational Variables in Household Surveys (EVHOS, 2008-2010) working in cooperation with the OECD Network on Labour Market, Economic and Social Outcomes of Learning (LSO) made some preliminary recommendations for using the integrated system of collection of data on educational attainment, based on three main principles:

(i) It is important to ask precise questions in order to obtain accurate answers while minimising the time required for the interview. Asking about qualifications obtained (credentials) would reduce the risk of inaccuracies as compared to a more general question on the 'highest level of education completed' (which may be understood as programmes attended and not always successfully completed). It would also be an easier and simpler question for respondents to answer.

(ii) The growing number of different qualifications obtained either in the country where the survey is being conducted or abroad makes it more difficult for both interviewers and interviewees to assign an aggregated education level to a given qualification. It is therefore easier to collect information on the qualification obtained instead of asking the interviewer or interviewee to assign an education level to the qualification.

(iii) Computer-assisted interviews help collect detailed responses. The system allows the qualification to be matched to the national educational classification and later to ISCED before the data is sent to international organisations. It also extends the possibilities for analysis (time series analysis, new investigations).

Integrated systems of data collection on educational attainment ('diploma approach') meet these three principles. It should be noted that the effectiveness of integrated systems in improving international data on educational attainment is highly dependent on the good use of effective mappings of programmes and qualifications, which allow the data collected in interviews to be converted into national and international education levels (ISCED). Improving mappings is therefore of particular importance.

Information on qualifications obtained can be complemented by that on the individual's participation in education programmes not successfully completed. Such information is already collected in some countries. It can be used to analyse drop-out rates and patterns in dropping out of education, which is often an area of interest in surveys on specific issues related to education (e.g. the Adult Education Survey).

4. METADATA

➢ Extensive and structured metadata on the processes used in collecting data on the educational attainment of the population should be made available. This is essential for proper monitoring of the quality and comparability of statistics at international level and allows appropriate support to be given to <u>producers</u> of data on educational attainment.

The metadata on the data collection processes should include:

o the questions used in the survey for capturing the highest level of educational attainment (e.g. the wording and the sequence of questions);

o the level of detail of the data collected (the coding);

o the mapping used for conversion of national codes into ISCED; and

o information on any factors which may affect the quality and comparability of the data (e.g. breaks in series, time lags in registers, the proportion of proxy responses, the proportion and treatment of non-responses, and the classification of qualifications obtained abroad).

It is of particular importance for this information to be available for the main national source used to report on the educational attainment level of the population. It should also be provided for any other sources used to analyse outcomes of education (e.g. income) by educational attainment level.

➢ ISCED 2011 is a complex classification. The correspondence between ISCED levels and the main national education programmes (or national classifications) should be accessible to the general public (users) on a dedicated website or from linked websites.

➢ Sharing information on practices used at national level for collecting data on educational attainment (particularly on national classifications and their correspondence to the ISCED) would make it easier to encode the educational attainment of the most important groups of non-nationals living in a given country.

➢ **The use of integrated ISCED mappings plays a major role in monitoring comparability across countries**.

Intermediate ISCED mappings were requested from countries in 2011 to facilitate the implementation of ISCED 2011 in the joint data collection conducted by the UNESCO Institute for Statistics, OECD and Eurostat ('the UOE data collection') and in household surveys. In 2012, the mappings were limited to current qualifications, i.e. those required for UOE data collection. In 2013, they were extended to include formal qualifications obtained from non-formal education or via validation of competencies. From 2014, integrated ISCED mappings include a sheet informing on old qualifications which have an impact on educational attainment statistics (optional for the OECD countries which are not EU Member States).

Table 1: <u>Integrated ISCED mappings 2014 (columns of the table)</u>

- <u>Sheet 'UOE scope'</u>

Programmes and related qualifications covered by the UOE data collection:

1	Country
2	School/academic year *(2012/13)*
3	New programme
4	Programme number (ISCED level, number within level)
5	National name of the programme
6	Name of the programme in English
7	Formal education programme (yes/no/unknown)
8	Minimum entry requirement (ISCED 2011 level)
9	Theoretical starting age
10	Theoretical duration of the programme
11	Theoretical cumulative years of education at the end of the programme
12	Programme orientation (general/vocational)
13	Position in national degree structure
14	Access to higher educational level (ISCED 2011 level/no access)
15	Full-time or part-time programme
16	ISCED 97 level
17	ISCED 2011 level (3 digits)
18	Enrolments (absolute number)
19	Main diploma(s), degree(s) and certificate(s) awarded
20	Name of the qualification in English
21	ISCED 97 level of qualification/educational attainment
22	ISCED 2011 level of qualification/educational attainment (3 digits)
23	EU-LFS coding for educational attainment (ISCED 97, before 2014)
24	EU-LFS coding for educational attainment (ISCED 2011, from 2014)
25	*EQF level (only for EU countries)*
26	Notes

- <u>Sheet 'Current formal qualifications outside UOE scope'</u>

Qualifications from programmes not included in the UOE data collection (e.g. those of less than six months' duration) or obtained through validation of competencies or via non-formal programmes, recognised as equivalent to qualifications from formal education programmes.

1	Country
2	School/graduation year
3	New qualification
4	Name of qualification
5	Name of the qualification in English
6	Access to higher educational level
7	Number of qualifications awarded in the given school year
8	ISCED 97 level of qualification/educational attainment
9	ISCED 2011 level of qualification/educational attainment (3 digits)
10	EU-LFS coding for educational attainment (ISCED 97, before 2014)
11	EU-LFS coding for educational attainment (ISCED 2011, from 2014)
12	*EQF level (only for EU countries)*
13	Main programme leading to this qualification*
14	Name of the programme in English*
15	Type of programme (formal/non-formal/validation of competencies)
16	Provider of this education
17	Minimum entry requirement (ISCED2011 level or other)*
18	Theoretical duration of the programme*
19	Programme orientation (general/vocational)*
20	ISCED 97 level of the programme*
21	ISCED 2011 level of the programme (3 digits)*
22	Notes

* Only if qualification results from the formal (or non-formal) programme.

- Sheet 'Old qualifications'

Qualifications from education programmes which no longer exist but to which an ISCED-A level should be assigned in order to allow the production of accurate statistics on educational attainment.

1	Country
2	School year (last year of entrance/years of the existence of the programme)
3	National name of the programme
4	Name of the programme in English
5	ISCED 97 level of the programme
6	Programme orientation (general/vocational/pre-vocational)
7	Minimum entry requirements (ISCED 97)
8	Theoretical starting age
9	Theoretical duration of the programme
10	Access to higher educational level
11	Name of the qualification in national language
12	Name of the qualification in English
13	ISCED 97 level of qualification/educational attainment
14	ISCED 2011 level of qualification/educational attainment
15	EU-LFS coding for educational attainment (ISCED 97, before 2014)
16	EU-LFS coding for educational attainment (ISCED 2011, from 2014)
17	*EQF level (only for EU countries)*
18	Notes