



Review of the International Standard Classification of Education 1997 (ISCED 97)

Recommendations on the Definition of Educational Attainment in ISCED

Proposal

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This document is based on the proposal for consideration by the ISCED Review Technical Advisory Panel in the Paris meeting, July 2009, prepared by EUROSTAT (Directorate F, Unit F-4: Education, science and culture statistics) in co-operation with the OECD - INES Network on Labour Market, Economic and Social Outcomes of Learning. It was reviewed after the TAP-III meeting in December 2009.

Proposal overview

1. The proposal addresses the main issues related to a world-wide definition of educational attainment of individuals and populations to be included in a revised version of ISCED.
2. The first section of the proposal puts forward a definition of educational attainment and invites to discuss it in relation to an alternative definition and related concepts to be considered.
3. The proposal reviews the definitions already available in different frameworks (see annex). The recommendations are compliant with the recommendations of the UNECE for the 2010 population censuses but provide further useful details.
4. The UIS-regional ISCED expert meetings should particularly address the usefulness of the proposal taking into account specific situations in different regions of the world, especially for lower levels of education. In the case that doubts are expressed during these expert meetings concerning certain proposed recommendations, it should be emphasised that the collection of data on educational attainment should refer to facts (outputs) easily identifiable by survey respondents and recognised by the formal education system.
5. Applying ISCED to educational attainment data does not only require a precise definition of educational attainment but also improvements in the guidance for the classification of educational programmes in general. This is especially needed with respect to the criteria used for completion of a programme and level, both equally relevant for attainment and graduation data. Therefore this proposal discusses in the second section some issues that are to be addressed by ISCED in general, independent of educational attainment but indispensable for the correct identification of educational attainment of individuals. The UIS-regional ISCED expert meetings should consider the recommendations of the second section, keeping in mind that they would not only apply to educational attainment but also to graduation data and other data.
6. In order to facilitate the discussion of the definitions, the proposal provides a selection of examples from existing national educational systems. This allows judging how the definitions would be applied in different regions. The examples were selected because they represent potentially problematic cases in the application of the proposed definition. As such, they should be considered as models for many other cases and should not be discussed with respect to the individual country but as prototypes of how a revised ISCED would work.
7. The proposal does not include recommendations on the implementation for data collection on educational attainment because the regional ISCED expert meetings are not the fora to discuss these issues in full length. However, there is agreement that recommendations on the implementation are crucial for the gathering of comparable data. A further discussion of implementation issues is included in the *ISCED REVIEW - Draft Recommendations on the Measurement of Educational Attainment*.

Definitions of educational attainment and related concepts

Definition of Educational Attainment

8. The purpose of ISCED is to support the collection and presentation of internationally comparable education statistics. The unit of classification within ISCED is the national educational programme, which is assigned to an educational level. Therefore the main issue when applying ISCED to educational attainment is how to link an individual's education to educational programmes to determine the ISCED level.
9. The following definition for educational attainment is proposed:
The educational attainment of an individual is the highest level of educational programme successfully completed in the ISCED ladder, the success being validated by a recognised credential.

An ISCED level is considered as completed if

a) the programme completed grants access to a higher ISCED level in the formal education system; or

b) the programme completed provides not direct access to the next higher level but the cumulative theoretical duration of studies at the given ISCED level is sufficiently long.

10. For ISCED levels 1 and 2 programmes not providing direct access to the next higher level are considered as of sufficient duration if the cumulative duration at the level is not more than one year less than the duration of the shortest pathway providing direct access to the next higher ISCED level.
11. For ISCED 3 two alternative definitions for sufficient duration are considered. One option is to use the same relative duration criterion as for ISCED 1 and 2. The alternative proposal is to use the same absolute duration for all countries, independent of the duration of the shortest pathway providing direct access to the next higher ISCED level. In this second option programmes are of sufficient duration if they are at least 2 years long.

Further concepts related to educational attainment

12. Most users expect educational attainment to refer to levels of education or educational programmes successfully completed, as in the above proposed definition. This is not to deny that other concepts are important and may need to be used to develop a more complete picture of human capital. For example, it would be relevant to capture all programmes individuals have *attended* since they contribute to the acquisition and improvement of competences and reflect the output of a country's education system.
13. Two further concepts need to be considered to clarify the definition of educational attainment:

- a. *Level of education attended (with or without successful completion)*
Information on the level of education attended (identified through the classification of national educational programmes in ISCED) but not necessarily successfully completed could be a basis for additional analyses of transitions in the educational systems, drop-outs or skills and competences.
 - b. *Validated skills and competences (credential recognizing the acquisition of skills and competences not necessarily by enrolment in an educational programme)*
Results on validated skills and competences would provide further information on human capital but possible data collections are to be considered as an important challenge for future of statistics on outcomes of learning.
14. Dependent on the definition adopted for ISCED (Definition Proposal 1 or Definition Proposal 2, see paragraphs 9 and 15) duration can be used as an additional dimension in educational attainment. Levels of educational attainment can be divided into levels successfully completed with short programmes versus full successful completion of a level. For example, the new definition would support the current European reporting of 2-year ISCED 3C programmes by classifying them as “upper secondary education (ISCED 3) successfully completed with short programmes”, while they would be excluded from the “successful completion of full upper secondary”.

Credential criterion and borderline cases

15. The concept of “educational programme successfully completed” typically corresponds to the situation in which a pupil or student attends and completes a formal education programme.
16. In most cases, credentials (certificates, diploma, degrees) obtained upon successful programme completion are the best proxies to use in the data collection. But, in countries where educational programmes belonging to ISCED levels 1 and 2 do not lead to a certification and for individuals who did not obtain any certificate, the criterion of full attendance in the programme (giving access to the next higher level of education) has to be used instead.
17. Only credentials recognised by the formal education system define an individual's educational attainment.
18. For countries where modular educational programmes are offered, the highest educational level successfully completed is validated by the successful completion of all modules of the programme.
19. Although the use of the “credential” criterion to define educational attainment would be the best proxy, survey designers should pay attention to the following cases:
- a. Other processes of recognition of skills and competences (obtained through work experience, for instance) should be clearly differentiated from educational attainment. They are useful for the analysis of human capital and could be collected separately (e.g. for an analysis of 'validated skills and competences'). However, only

credentials recognised by the formal education system can be used for the measurement of educational attainment.

- b. Certain credentials obtained through non-formal education and training programmes can be considered, provided that they are recognised by the formal education system (i.e. in most cases allowing access to higher education levels in the formal education system).

Classification of educational programmes not operative any more

20. Data collection on educational attainment must cover attainment in both current and past educational programmes because the target population of most surveys includes individuals of varying birth and thus education cohorts. ISCED should give directions on the classification of past educational programmes. In order to achieve comparability across countries and over time, educational programmes should be classified on the basis of their characteristics when they were in force. The classification according to the ISCED levels of current programmes that might (at the national level) be perceived to be equivalent is considered bad practice since it does not reflect changes over time, for example in entry requirements and typical entry age, which are important proxies for complexity of content covered.

21. The coding of educational programmes whose requirements have changed over time implies the need for different guidelines depending on the data source:
 - a. with respect to data derived from registers, past credentials and programmes should not be automatically re-allocated to the ISCED level of their "successor" credentials or programmes. Registers should aim to differentiate between certificates and programmes before and after educational reforms;
 - b. with respect to data collected through surveys, the data collection instruments should offer distinct response categories for past programmes and qualifications and their "successors" in order to allow a mapping of the old programme (and its content) according to current ISCED criteria;
 - c. data collection instruments should allow obtaining information on the highest educational level successfully completed independently of any other characteristics of the individual, such as occupation.

Issues with ISCED related to educational attainment

22. Defining levels of educational attainment depends not only on a proper definition but also on a correct classification of educational programmes in general. In order to improve the measurement of educational attainment, the TAP recommends considering the following important issues with ISCED.

Clarification of terminology and need for the enriched ISCED glossary

23. The discussions on the ISCED review showed the importance of clear definitions and terminology concerning statistics on education and training

and on educational attainment in particular. The development of the lifelong learning approach at the EU and OECD level introduced many new concepts and terms which are not always well-known or which are interpreted in different ways. Therefore a glossary will be developed to support the ISCED itself.

24. Moreover, it is highly recommended to clarify the international status of the “Classification for Learning Activities” (CLA) elaborated and used at the EU-level (as well as in many OECD countries).¹ This classification provides definitions of the basic concepts (like formal or non-formal education) that are useful for statistics on education and on lifelong learning in general.

Wider use of orientation and field of education as complementary information concerning educational attainment

25. There is a strong need at the EU and OECD levels for information about the orientation (general or vocational) as well as about fields of education related to the respondents' educational attainment. This information is important for the analysis of responsiveness of educational systems to labour market needs, transition from education to work, matching skills with jobs, access to and inequality in education.
26. As analysis of labour market needs and of matching skills and jobs requires more detailed information on the field of studies completed, a three-digit level of detail might be recommended for data collection and coding of data on fields of education, at least for specific populations (e.g. young people ready to enter the labour market).
27. Information on the field of study is particularly important for the tertiary level of education but it is also relevant for secondary education, especially when dealing with vocational education.
28. The situation of persons with education completed in multiple fields at the same ISCED level needs to be further discussed.

Compliance with ISCED

29. As international comparability of data on educational attainment should be improved, it is strongly recommended to elaborate a strategy for monitoring the quality of these statistics and compliance with ISCED. This strategy should include:
 - a. Suggestion to countries to organise collaborations to produce correspondence tables specially designed for surveys, linking national educational programmes/credentials/qualifications to ISCED levels and taking into account past programmes;
 - b. Mechanism at international level for the collection and analysis of quality reports on educational attainment (e.g. on data collection processes), validation of correspondence tables for surveys and disseminating material online. Peer reviews among countries could be a form of collaboration and of sharing experiences to assess the

¹ Eurostat. 2005. *Classification for learning activities: Manual*. Luxembourg: European Commission, May.

consistency in the application of ISCED criteria across countries and to improve the international comparability of data on educational attainment.

Annexes

Annex A: Document history

This revised document for regional experts considers discussions at the TAP III meeting in December 2009 and discussions with the OECD LSO network in October 2009.

The first version of the regional expert document is based on *ISCED REVIEW - Draft Recommendations on the Measurement of Educational Attainment* (Proposal for consideration by the UIS Technical Advisory Panel) in its version of August 2009. It was adopted for regional consultations by UIS. A review of education systems outside the OECD/EU areas led UIS to propose a generalization of the duration criteria introduced by the EU document and to integrate this into the definition. The consequent changes introduced by UIS are marked as such for discussion.

The proposal by EUROSTAT is the outcome of a series of meetings and consultations that took place in 2008 and 2009:

Seminar on "Improving ISCED-97 and its implementation" (Paris, 25-26.09.2008) organised in co-operation between UIS, OECD and Eurostat and sponsored by Eurostat, with experts specialising in ISCED and education statistics;

OECD INES Network B meeting (Stockholm, 27-29.10.2008);

The first ISCED Technical Advisory Panel (TAP) (Montreal, 19-21 January 2009) and the second TAP meeting (Paris, 9-10 July 2009).

The *Eurostat EVHoS Task Force* worked on a note for the January 2009 TAP meeting. The note was circulated to a few members of the OECD Network on Learning Outcomes (new name of Network B) and all EU Member States in February 2009 for comments.

Further discussions took place in the second *EVHoS Task Force* meeting (18-19 March 2009) and in the OECD-INES Network on Labour Market, Economic and Social Outcomes of Learning meeting (Rotterdam, 30 March - 1 April 2009).

A last round of consultation of EU Member States and the OECD-INES Network took place between 20 May and 8 June 2009.

Annex B: Annotated country examples – in progress due to the discussions during the TAP III meeting in Geneva on Dec 3-4, 2009. Examples to be presented during the regional meeting.