



*UNITED NATIONS EDUCATIONAL, SCIENTIFIC
AND CULTURAL ORGANIZATION*

**International
Standard
Classification
of Education**

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Preface

The International Standard Classification of Education (ISCED) was designed by UNESCO in the early 1970's to serve 'as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally'. It was approved by the International Conference on Education (Geneva, 1975), and was subsequently endorsed by UNESCO's General Conference when it adopted the Revised Recommendation concerning the International Standardization of Educational Statistics at its twentieth session (Paris, 1978).

Experience over the years with the application of ISCED by national authorities and international organizations has shown the need for its updating and revision. This would further facilitate the international compilation and comparison of education statistics and take into account new developments and changes in education and anticipate future trends in the various regions of the world, such as

the multiplication and growth of different forms of vocational education and training,
the increasing diversity of education providers, and
the increasing recourse to distance education and other modalities based on new technologies.

The present classification, now known as ISCED 1997, was approved by the UNESCO General Conference at its 29th session in November 1997. It was prepared by a Task Force established by the Director-General to that effect and is the result of extensive consultations of worldwide representation. ISCED 1997 covers primarily two cross-classification variables: levels and fields of education.

UNESCO's data-collection programme will be adjusted to these new standards and Member States are invited to apply them in the reporting of education statistics so as to increase their international comparability. To this end, an operational manual, aimed at giving guidance on the interpretation and practical application of ISCED 1997, will be prepared in close collaboration with national experts.

During the 1998/99 biennium work on additional aspects such as types of education and education providers will be undertaken and incorporated in the present classification.

TABLE OF CONTENTS

	Page
Introduction.....	1
Scope and coverage	3
What ISCED covers	3
How ISCED works.....	4
The concept of the 'educational programme' in ISCED.....	5
Application of ISCED to programmes outside regular education	7
Cross-classification variables.....	9
I. Levels of education.....	10
How to assess the level of content of a programme.....	11
How to apply the proxies in practice.....	12
Level 0 - Pre-primary education.....	14
Level 1 - Primary education or first stage of basic education.....	16
Level 2 - Lower secondary or second stage of basic education.....	18
Level 3 - (Upper) secondary education	22
Level 4 - Post-secondary non-tertiary education.....	25
Level 5 - First stage of tertiary education.....	28
Level 6 - Second stage of tertiary education	33
II. Broad groups and fields of education	35
Glossary	41

INTRODUCTION

1. ISCED is designed to serve as an instrument suitable for assembling, compiling and presenting comparable indicators and statistics of education both within individual countries and internationally. It presents standard concepts, definitions and classifications. ISCED covers all organized and sustained learning opportunities for children, youth and adults including those with special needs education, irrespective of the institution or entity providing them or the form in which they are delivered.
2. ISCED is a multi-purpose system, designed for education policy analysis and decision making, whatever the structure of the national education systems and whatever the stage of economic development of a country. It can be utilized for statistics on many different aspects of education such as statistics on pupil enrolment, on human or financial resources invested in education or on the educational attainment of the population. The basic concept and definitions of ISCED have therefore been designed to be universally valid and invariant to the particular circumstances of a national education system. However, it is necessary for a general system to include definitions and instructions that cover the full range of education systems.
3. The original version of ISCED classified educational programmes by their content along two main axes: levels of education and fields of education. These axes, referred to as cross-classification variables, are retained in the revised taxonomy. In the light of experience with the implementation and application of the original version of ISCED in a majority of countries over the last two decades, the rules and criteria for allocating programmes to a level of education have been clarified and tightened and the fields of education have been further elaborated.
4. Information compiled according to ISCED can be utilized for assembling statistics on many different aspects of education of interest to policy-makers and other users. Whilst ISCED may be easier to use for collecting enrolment data, it should be stressed that it is a classification of educational programmes and does not deal with the flow of students through the education system (see paragraph 22). As regards the collection of data on the educational attainment of the population, there is need to adapt ISCED and this will be detailed in the operational manual.

5. Taking into account that the comprehensive operational manual will be prepared, the text of the revised ISCED has been made as concise as possible and is structured in five sections:

What ISCED covers

How ISCED works

The concept of the 'Educational Programme' in ISCED

Application of ISCED to programmes outside regular education

Cross-classification variables

I - Levels of education

II - Broad groups and fields of education

SCOPE AND COVERAGE

WHAT ISCED COVERS

6. ISCED does not intend to provide a comprehensive definition of education, still less to impose an internationally standardized concept of the philosophy, aims or content of education, or to reflect its cultural aspects. Indeed, for any given country the interplay of cultural traditions, local customs, socio-economic conditions, at the very least, will have resulted in a concept of education in many ways unique to that country, and any attempt to impose a common definition would not be productive. However, for the purposes of ISCED, it is necessary to prescribe the scope and coverage of the educational activities to be covered by the classification.
7. Within the framework of ISCED, the term education is thus taken to comprise all deliberate and systematic activities designed to meet learning needs. This includes what in some countries is referred to as cultural activities or training. Whatever the name given to it, education is understood to involve organized and sustained communication designed to bring about learning. The key words in this formulation are to be understood as follows:
8. **COMMUNICATION:** a relationship between two or more persons involving the transfer of information (messages, ideas, knowledge, strategies, etc.). Communication may be verbal or non-verbal, direct/face-to-face or indirect/remote, and may involve a wide variety of channels and media.
9. **LEARNING:** any improvement in behaviour, information, knowledge, understanding, attitude, values or skills.

10. **ORGANIZED:** planned in a pattern or sequence with explicit or implicit aims. It involves a providing agency (person or persons or body) which sets up the learning environment and a method of teaching through which the communication is organized. The method is typically someone who is engaged in communicating or releasing knowledge and skills with a view to bringing about learning, but it can also be indirect/inanimate e.g. a piece of computer software, a film, or tape, etc.
11. **SUSTAINED:** intended to mean that the learning experience has the elements of duration and continuity. No minimum duration is stipulated, but appropriate minima will be stated in the operational manual.
12. ISCED embraces both initial education at the early stages of a person's life prior to entry into the world of work, as well as continuing education throughout a person's life. It follows that education for the purpose of ISCED includes a variety of programmes and types of education which are designated in the national context, such as regular education, adult education, formal education, non-formal education, initial education, continuing education, distance education, open-education, life-long education, part-time education, dual systems, apprenticeships, technical-vocational education, training, special needs education. A provisional glossary of definitions is annexed to this document.
13. It follows that education, for the purposes of ISCED, excludes communication that is not designed to bring about learning. It also excludes various forms of learning that are not organized. Thus, while all education involves learning, many forms of learning are not regarded as education. For example, incidental or random learning which occurs as a by-product of another event, such as something that crystallizes during the course of a meeting, is excluded because it is not organized i.e. does not result from a planned intervention designed to bring about learning.

HOW ISCED WORKS

14. ISCED provides an integrated and consistent statistical framework for the collection and reporting of internationally comparable education statistics. It contains two components:
 - a *statistical framework* for the comprehensive statistical description of national education and learning systems along a set of variables that are of key interest to policy makers in international educational comparisons; and
 - a *methodology* that translates national educational programmes into an internationally comparable set of categories for (i) the levels of education; and (ii) the fields of education.

15. The application of ISCED facilitates the transformation of detailed national education statistics on participants, providers and sponsors of education, compiled on the basis of national concepts and definitions, into aggregate categories that are internationally comparable and that can be meaningfully interpreted.
16. ISCED rests on three components: (i) internationally agreed concepts and definitions, (ii) the classification systems, and (iii) an operational instructional manual and a well-defined implementation process. Comprehensive, and detailed operational specifications are an integral part of ISCED – that is, inseparable from the basic taxonomy. The same applies to the implementation process. The operational manual will give specific and operational instructions. Without them, no individual country, no matter how strong its intention to facilitate international comparisons, is in a position to determine whether its method of assigning programmes to international categories is compatible with the methods of other countries.

THE CONCEPT OF THE ‘EDUCATIONAL PROGRAMME’ IN ISCED

17. The basic unit of classification in ISCED remains the educational programme. Educational programmes are defined on the basis of their educational content as an array or sequence of educational activities which are organized to accomplish a pre-determined objective or a specified set of educational tasks. Objectives can, for example, be preparation for more advanced study, qualification for an occupation or range of occupations, or simply an increase of knowledge and understanding.
18. Accomplishment of a pre-determined objective often means the presence of a set of structured learning experiences that lead to a completion point which sometimes is formally certified through an award or other form of recognition. Usually educational programmes, while containing courses and other learning experiences, are not merely the sum of their components because they are supposed to be organized (see para. 17). In many cases – though not always – it is required that an institution or other provider recognizes the existence of such a programme and certifies completion of it.

19. The term 'educational activity' implies a broader meaning than the term 'course or combination of courses' which is important because education at a given level comprises not only courses organized into programmes but also free-standing courses and a variety of non-course activities as well. Programmes sometimes include major components not normally characterized as courses – for example, interludes of work experience in enterprises, research projects, and preparation of dissertations.
20. It should be noted that not all courses are parts of programmes of regular education. For instance, many participants in adult and continuing education and training in enterprises take individual courses to acquire specific kinds of skills (see paragraph 26 to determine the level for these courses).
21. It must be recognized, though, that ISCED has natural limitations for the direct classification and assessment of competences and qualifications of the participants in educational activities. This is because there is no close and universal relationship between the programmes a participant is enrolled in and actual educational achievement. The educational programmes an individual has participated in or even successfully completed are, at best, a first approximation to the skills and competences he or she has actually obtained. Furthermore, for a programme-based taxonomy it is very difficult to capture educational activities that are not organized in the form of educational programmes of regular education.
22. There is another serious limitation with a programme-based taxonomy of the levels of education. Although it is reasonable to assume that educational activities will result in an increase of skills and competences for an individual so that the pathway of an individual through the education system can be understood as an ordered increase in the educational attainment, the underlying educational programmes can often be ordered only to a limited extent: individuals can arrange their educational pathways in many ways. To respond to this, education systems provide multiple branching paths, alternative programme sequences, and 'second chance' provisions. There is also an increase in 'horizontal' movements through education systems in which a participant can broaden his or her education with only a partial increase in the 'level' of education. It thus becomes increasingly difficult to attribute the programme itself to a particular level of education. A taxonomy which is programme-based necessarily loses partly the information on the pathway of the participants through the education system. A hierarchy of educational programmes can thus reflect the reality of education systems only to a limited extent.

APPLICATION OF ISCED TO PROGRAMMES OUTSIDE REGULAR EDUCATION

23. Some educational activities cannot be easily described in terms of an educational programme in the above sense even though they clearly involve *organized* and *sustained communication* designed to bring about *learning* so that they fall, in principle, under the scope of ISCED. Family-centred early childhood education can serve as an example.
24. Within the framework of ISCED, the universe of education includes, as mentioned in paragraphs 1 and 12, in addition to regular education, adult education and special needs education. The content of the educational programmes designed for the latter two sub-groups are often adjusted to cover their particular needs.
25. For other types of educational activities the provision of education can be defined in terms of an educational programme in the above sense but it is very difficult to identify the participants in the programme. An educational broadcasting programme might serve as an example for such cases. In yet other cases educational programmes may have special characteristics that do not meet the usual criteria that are chosen in ISCED for the classification of programmes but still fall under the coverage of ISCED. For example, an educational course provided through the Internet may be similar in content and objectives to a programme provided in regular education.
26. All such educational activities should be classified based on their equivalence with the educational content of regular programmes. In other words, they should be classified together with those regular educational programmes to which they are most similar with respect to the criteria provided. For example, where family-centred early childhood education satisfies the content-based criteria of ISCED level 0, it should be classified as an ISCED level 0 pre-primary programme. Sometimes the qualifications or certifications awarded upon successful completion of a programme can help to classify an educational activity. For example, the level of educational content of a distance education programme might be classified based on the type of qualifications that are awarded upon its successful completion.

CROSS-CLASSIFICATION VARIABLES

27. Educational programmes are cross-classified by levels and fields of education, each variable being independent. Thus, every educational programme can be classified into one and only one cell in the level-field matrix. Obviously, not every combination of level and field exists, or can exist.

I. LEVELS OF EDUCATION

28. The notion of ‘levels’ of education is taken to be broadly related to gradations of learning experiences and the competences which the contents of an educational programme require of participants if they are to have a reasonable expectation of acquiring the knowledge, skills and capabilities that the programme is designed to impart. Broadly speaking, the level is related to the degree of complexity of the content of the programme. This does not imply that levels of education constitute a ladder where the access of prospective participants to each level necessarily depends on having successfully completed the previous level. It also does not preclude the possibility that some participants in educational programmes at a given level may have previously successfully completed programmes at a higher level.

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

30. The classification of the levels of education is undertaken within an overall taxonomic framework that considers the educational system as a whole, and specifically for parameters that are of key interest to policy-makers in international educational comparisons or that are closely related to the definition of the levels of education. Such parameters can be the general orientation of the programme, the field of education, the service provider and the educational setting or location, the mode of service provision, the type of participant or the mode of participation. Some of these parameters do not necessarily provide direct attributes of the educational programmes but are rather attributes of the institutions that provide the programmes or general attributes of the modes of provision. However, these attributes serve an important function in distinguishing the nature of the programmes in many countries. They further play a crucial role when defining the scope of data collections. Thus, while ISCED is a classification system of educational programmes, these other – often closely interrelated – parameters will help to establish an overall reference framework.

HOW TO ASSESS THE LEVEL OF CONTENT OF A PROGRAMME

31. While the classification of educational programmes by level should be based on educational content, it is clearly not possible to directly assess and compare the content of the educational programmes in an internationally consistent way. Curricula are far too diverse, multi-faceted and complex to permit unambiguous determinations that one curriculum for students of a given age or grade belongs to a higher level of education than another. International curricula standards that are needed to support such judgements do not as yet exist.

32. Empirically, ISCED assumes that there exists several criteria which can help point to the level of education into which any given educational programme should be classified. Depending on the level and type of education concerned, there is a need to establish a hierarchical ranking system between criteria: main criteria, and subsidiary criteria (typical entrance qualification, minimum entrance requirement, minimum age, staff qualification, etc., see Table 1). It is very important to apply these criteria in a manner that they do not exclude but rather complement each other. After applying the criteria, the level of the programme is determined.

33. To help users classify educational activities and programmes appropriately, and to provide reliable tools to collect data and to calculate pertinent and comparative indicators, there is a need to subdivide certain levels. For example, Level 5 is disaggregated using three independent variables (called complementary dimensions) - cumulative duration, national degree and qualification structure, and type of programmes. This type of disaggregation facilitates many kinds of cross-classifications and the derivation of pertinent comparative indicators.

HOW TO APPLY THE PROXIES IN PRACTICE

34. When using the criteria for the classification of a programme, it should be borne in mind that the primary classification criterion is the educational content. It is of fundamental importance that institutional characteristics of national programmes are not used as substitutes for educational content. Sole reliance on institutional criteria could sacrifice the objective of international comparability for a wide range of comparisons since institutional structures are not usually internationally comparable.
35. Flexibility is, however, required when applying the criteria to determine the level of education of an educational programme. While it is a principal objective of ISCED to promote the collection of comparable data on education for the various programme groupings, it is recognized that nationally disparate conditions may exist which preclude strict adherence to the level definitions. Two examples to highlight this are the starting age and the duration.

First, it is stated that the starting age for pre-primary education is three years but this does not preclude younger children from participating.

A second example, the duration of ISCED 1 as stated is six years of full-time equivalent schooling. This, however, does not automatically imply that countries with seven years of primary education are requested to divide statistics on, for example, the financial and teaching resources in primary education in two parts. Instead ISCED recognizes that the statistical reporting will be done in the context of the national education system and the constraints of statistical reporting systems.

What is important is that as far as institutional transition points are used as criteria for allocating a programme to an ISCED level, the choice of national transition points for matching the international classification categories is determined by the content of the underlying educational programmes. Each duration given in ISCED is intended to serve as a guide, and variations could be envisaged. These examples are also valid for levels 2 and 3.

36. Short terms are used to describe some complementary dimensions. The complete definitions are the following:
- the type of subsequent education or destination: the type of subsequent education or destination for which completers are eligible or type of labour market positions for which they prepare graduates;
 - the programme orientation: the programme orientation, understood here as the degree to which the programme is specifically oriented towards a specific class of occupations or trades

Table 1: LEVELS OF EDUCATION AT A GLANCE

How to determine the level of a programme		Name of the level	Code	Complementary dimensions
Proxy criteria for contents				
Main criteria	Subsidiary criteria			
Educational properties School or centre-based Minimum age Upper age limit	Staff qualification	Pre-primary education	0	None
Beginning of systematic apprenticeship of reading, writing and mathematics	Entry into the nationally designated primary institutions or programmes Start of compulsory education	Primary education First stage of basic education	1	None
Subject presentation Full implementation of basic skills and foundation for lifelong learning	Entry after some 6 years of primary education End of the cycle after 9 years since the beginning of primary education End of compulsory education Several teachers conduct classes in their field of specialization	Lower secondary education Second stage of basic education	2	Type of subsequent education or destination Programme orientation
Typical entrance qualification Minimum entrance requirement		(Upper) secondary education	3	Type of subsequent education or destination Programme orientation Cumulative duration since the beginning of ISCED level 3
Entrance requirement, Content, Age, Duration		Post-secondary non tertiary education	4	Type of subsequent education or destination Cumulative duration since the beginning of ISCED level 3 Programme orientation
Minimum entrance requirement, Type of certification obtained, Duration		First stage of tertiary education (not leading directly to an advanced research qualification)	5	Type of programmes Cumulative theoretical duration at tertiary National degree and qualification structure
Research oriented content, Submission of thesis or dissertation	Prepare graduates for faculty and research posts	Second stage of tertiary education (leading to an advanced research qualification)	6	None

LEVEL 0 - PRE-PRIMARY EDUCATION

Principal characteristics

37. Programmes at level 0, (pre-primary) defined as the initial stage of organized instruction are designed primarily to introduce very young children to a school-type environment, i.e. to provide a bridge between the home and a school-based atmosphere. Upon completion of these programmes, children continue their education at level 1 (primary education).

Classification criteria

38. For the definition of the beginning and the end of pre-primary education, i.e. the boundary between pre-primary education and childcare or between pre-primary and primary education, the following criteria are relevant:

Main criteria

- the educational properties of the programme;
- school or centre based;
- the minimum age of the children catered for; and
- the upper age limit of the children.

Subsidiary criterion

- the staff qualifications.

39. For a programme to be considered as pre-primary education, it has to be school-based or centre-based. These terms are used to distinguish activities in settings such as primary school, pre-schools and kindergartens from services provided in households or family settings.
40. Such programmes are designed for children aged at least 3 years. This age has been chosen since programmes destined for younger children do not normally satisfy the educational criteria in ISCED.
41. The upper age limit depends in each case on the typical age for entry into primary education.

42. Where appropriate, the requirement of pedagogical qualifications for the teaching staff can be a good proxy criterion for an educational programme in all those countries, in which such a requirement exists. It serves to distinguish pre-primary education from child-care for which para-medical or no qualifications are required.

Includes also:

43. This level includes organized instruction for children with special needs education. This education may be also provided in hospitals or in special schools or training centres. In this case no upper age limit can be specified.

Excludes:

44. Adult education.

LEVEL 1 - PRIMARY EDUCATION OR FIRST STAGE OF BASIC EDUCATION

Principal characteristics

45. Programmes at level 1 are normally designed on a unit or project basis to give students a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music. In some cases religious instruction is featured.
46. The core at this level consists of education provided for children, the customary or legal age of entrance being not younger than five years or older than seven years. This level covers in principle six years of full-time schooling.
47. Throughout this level the programmes are organized in units or projects rather than by subjects. This is a principal characteristic differentiating programmes at this level in most countries from those at level 2.

Classification criteria

48. For the definition of the boundary between education levels 0 and 1 (pre-primary and primary education) the following criteria are relevant:

Main criterion

the beginning of systematic studies characteristic of primary education, e.g. reading, writing and mathematics.

Subsidiary criteria

entry into the nationally designated primary institutions or programmes; and the start of compulsory education where it exists.

Includes also:

49. In countries where primary education is part of ‘basic education’, only the first stage should be included in level 1. If ‘basic education’ is not officially divided into stages, only the first six years should be classified as level 1.

50. This level category also includes programmes suited to children with special needs education.

51. Literacy programmes within or outside the school system which are similar in content to programmes in primary education for those considered too old to enter elementary schools are also included at this level because they require no previous formal education.

LEVEL 2 - LOWER SECONDARY OR SECOND STAGE OF BASIC EDUCATION

Principal characteristics

52. The contents of education at this stage are typically designed to complete the provision of basic education which began at ISCED level 1. In many, if not most countries, the educational aim is to lay the foundation for lifelong learning and human development on which countries may expand, systematically, further educational opportunities. The programmes at this level are usually on a more subject-oriented pattern using more specialized teachers and more often several teachers conducting classes in their field of specialization. The full implementation of basic skills occurs at this level. The end of this level often coincides with the end of compulsory education where it exists.

Classification criteria

53. For the definition of this level, the following criteria are relevant:

Main criteria

the beginning of subject presentation using more qualified teachers than for level 1; and
the full implementation of basic skills and foundation for lifelong learning.

Subsidiary criteria

entry is after some 6 years of primary education (see paragraph 35);

the end of this level is after some 9 years of schooling since the beginning of primary education (see paragraph 35);

the end of this level often coincides with the end of compulsory education in countries where this exists; and

often, at the beginning of this level, several teachers start to conduct classes in their field of specialization.

Complementary dimensions

54. Two complementary dimensions are needed to describe this level:
- the type of subsequent education or destination (see paragraph 36); and
 - the programme orientation (see paragraph 36).

Type of subsequent education or destination

55. ISCED level 2 programmes can be subclassified according to the destination for which the programmes have been designated, resulting in the following distinction (see paragraph 66):
- ISCED 2A: programmes designed for direct access to level 3 in a sequence which would ultimately lead to tertiary education, i.e. entrance to ISCED 3A or 3B;
 - ISCED 2B: programmes designed for direct access to level 3C;
 - ISCED 2C: programmes primarily designed for direct access to the labour market at the end of this level (sometimes referred to as ‘terminal’ programmes).

Programme orientation

56. This second complementary dimension subdivides the programmes into three categories:

General education

57. Education which is mainly designed to lead participants to a deeper understanding of a subject or group of subjects, especially, but not necessarily, with a view to preparing participants for further (additional) education at the same or a higher level. Successful completion of these programmes may or may not provide the participants with a labour-market relevant qualification at this level. These programmes are typically school-based. Programmes with a general orientation and not focusing on a particular specialization should be classified in this category.

Pre-vocational or pre-technical education

58. Education which is mainly designed to introduce participants to the world of work and to prepare them for entry into vocational or technical education programmes. Successful completion of such programmes does not yet lead to a labour-market relevant vocational or technical qualification. For a programme to be considered as pre-vocational or pre-technical education, at least 25 per cent of its content has to be vocational or technical. This minimum is necessary to ensure that the vocational subject or the technical subject is not only one among many others.

Vocational or technical education

59. Education which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations or trades. Successful completion of such programmes lead to a labour-market relevant vocational qualification recognized by the competent authorities in the country in which it is obtained (e.g. Ministry of Education, employers' associations, etc.).

Programmes in this category may be subdivided into two types:

- those which are primary theoretically oriented; and
- those which are primarily practically oriented.

These three categories are also used for levels 3 and 4.

How the two complementary dimensions work at level 2

Type of subseq. educ. or destination → Programme orientation ↓	ISCED level 2 programmes		
	Programmes giving access to ISCED level 3		Programmes not giving access to level 3: ISCED 2C programmes preparing only for direct entry into the labour market
	ISCED 2A progr. giving access to 3A or 3B programmes	ISCED 2B progr. giving access to 3C programmes	
General			
Pre-vocat. or pre-technical			
Vocational or technical			

Includes also:

60. In countries where primary education is part of 'basic education', the second stage of 'basic education' should be included in level 2. If 'basic education' is not officially divided into stages, the years after the sixth should be classified as level 2.

61. This level includes special needs education programmes and all adult education which are similar in content to the education given at this level, e.g. the education which gives to adults the basic skills necessary for further learning.

LEVEL 3 (UPPER) SECONDARY EDUCATION

Principal characteristics

62. This level of education typically begins at the end of full-time compulsory education for those countries that have a system of compulsory education. More specialization may be observed at this level than at ISCED level 2 and often teachers need to be more qualified or specialized than for ISCED level 2. The entrance age to this level is typically 15 or 16 years.

63. The educational programmes included at this level typically require the completion of some 9 years of full-time education (since the beginning of level 1) for admission or a combination of education and vocational or technical experience and with as minimum entrance requirements the completion of level 2 or demonstrable ability to handle programmes at this level.

Classification criteria

64. For the definition of this level, the following criteria are relevant:

Main criteria

the typical entrance qualifications (some nine years of full-time education since the beginning of level 1; see paragraph 35); and

the minimum entrance requirements (usually the completion of level 2).

Complementary dimensions

65. Three dimensions are needed to subclassify this level:

- type of subsequent education or destination (see paragraph 36);
- programme orientation (see paragraph 36); and
- cumulative theoretical duration in full time equivalent since the beginning of level 3.

Type of subsequent education or destination

66. The first of these dimensions results in three distinct groupings (see paragraph 84):

- ISCED 3A: programmes at level 3, designed to provide direct access to ISCED 5A;
- ISCED 3B: programmes at level 3 designed to provide direct access to ISCED 5B;
- ISCED 3C: programmes at level 3 not designed to lead directly to ISCED 5A or 5B.

Therefore, these programmes lead directly to labour market, ISCED 4 programmes or other ISCED 3 programmes.

Programme orientation

67. This second complementary dimension has the same categories as for level 2 (see paragraphs 56 to 59):

general education;

pre-vocational or pre-technical education; and

vocational or technical education.

Cumulative theoretical duration

68. This third dimension, the cumulative theoretical duration of the programme, in full-time equivalent, is calculated from the beginning of level 3. This dimension is particularly useful for level 3C programmes.

How the three complementary dimensions work at level 3

Type of subseq. educ. or destination →	ISCED level 3 programmes					
	Programmes giving access to ISCED level 5		Programmes not giving access to level 5 programmes			
	ISCED 3A progr. giving access to 5A programmes	ISCED 3B progr. giving access to 5B programmes	ISCED 3C programmes giving access to labour market, level 4 programmes or other level 3 programmes			
≤ 6 months			6 mo < ≤ 1 y	1y < ≤ 2y	> 2 yrs	
Programme orientation ↓						
General						
Pre-vocat. or pre-technical						
Vocational or technical						

Includes also:

69. This level includes also special needs education programmes and adult education.

Excludes:

70. Remedial programmes that are designed for participants who have pursued a programme at ISCED level 2 but who have not attained the objectives of ISCED level 2 programmes (and which can therefore not be regarded as equivalent in content to any of the ISCED 3 programmes described below) should not be classified at ISCED level 3 but at ISCED level 1 or 2 depending on the content of the programmes.

LEVEL 4 - POST-SECONDARY NON-TERTIARY EDUCATION

Principal characteristics

71. ISCED 4 captures programmes that straddle the boundary between upper-secondary and post-secondary education from an international point of view, even though they might clearly be considered as upper-secondary or post-secondary programmes in a national context.
72. ISCED 4 programmes can, considering their content, not be regarded as tertiary programmes. They are often not significantly more advanced than programmes at ISCED 3 but they serve to broaden the knowledge of participants who have already completed a programme at level 3.
73. Typical examples are programmes designed to prepare students for studies at level 5 who, although having completed ISCED level 3, did not follow a curriculum which would allow entry to level 5, i.e. pre-degree foundation courses or short vocational programmes. Second cycle programmes can be included as well.

Classification criteria

74. It requires as a rule the successful completion of level 3, i.e. successful completion of any programme at level 3A or 3B, or, for 3C programmes, a cumulative theoretical duration of typically 3 years at least. However, the criterion of successful completion of ISCED 3 should be interpreted in the context of the duration of the programme. For example, a programme that builds on a 2-year programme at ISCED 3 and has a duration of 4 years, would normally be classified at ISCED 4 even though the preceding 2-year programme at ISCED 3 does not qualify for the completion of ISCED 3.

The programme content can be expected to be more specialized or detailed and the applications to be more complex in some cases than those offered at the upper-secondary level, and this irrespective of the institutional setting of the programme.

- The students are typically older than those in upper secondary programmes.
- It has a typical full-time equivalent duration of between 6 months and 2 years.

Complementary dimensions

75. Three dimensions are needed to subclassify this level:

- type of subsequent education or destination (see paragraph 36);
- the cumulative theoretical duration in full-time equivalence since the beginning of level 3; and
- the programme orientation (see paragraph 36).

Type of subsequent education or destination

76. According to this first dimension, level 4 can be subdivided into:

- 4A programmes that prepare for entry to ISCED 5; and
- 4B programmes not giving access to level 5 (primarily designed for direct labour market entry).

Cumulative theoretical duration

77. This duration is to be considered from the beginning of ISCED 3.

Programme orientation

78. The three categories are defined above in paragraphs 56 to 59:

- general education;
- pre-vocational or pre-technical education; and
- vocational or technical education.

How the three complementary dimensions work at level 4

Type of subseq. educ. or destination →	ISCED level 4 programmes							
	Programmes giving access to level 5 programmes				Programmes not giving access to level 5 programmes			
Programme orientation ↓	ISCED 4A programmes				ISCED 4B programmes			
	≤ 2 years	2y < ≤3 y	3y < ≤4y	> 4 years	≤ 2 years	2y < ≤3 y	3y < ≤4y	> 4 years
General								
Pre-vocat. or pre-technical								
Vocational or technical								

Cumulative duration is to be considered from the beginning of ISCED 3

Includes also:

79. This level includes adult education. For example, technical courses given during an individual's professional life on specific subjects as computer software could be included in this level.

**LEVEL 5 - FIRST STAGE OF TERTIARY EDUCATION
(NOT LEADING DIRECTLY TO AN ADVANCED RESEARCH
QUALIFICATION)**

Principal characteristics

80. This level consists of tertiary programmes having an educational content more advanced than those offered at levels 3 and 4. Entry to these programmes normally requires the successful completion of ISCED level 3A or 3B or a similar qualification at ISCED level 4A.
81. All degrees and qualifications are cross-classified by type of programmes, position in national degree or qualification structures (see below) and cumulative duration at tertiary.

Classification criteria

82. For the definition of this level, the following criteria are relevant:
- normally the minimum entrance requirement to this level is the successful completion of ISCED level 3A or 3B or ISCED level 4A;
 - level 5 programmes do not lead directly to the award of an advanced research qualification (level 6); and
 - these programmes must have a cumulative theoretical duration of at least 2 years from the beginning of level 5.

Complementary dimensions

83. Three complementary dimensions are needed to subdivide this level:
- the type of programmes dividing programmes into theoretically based/research preparatory/giving access to professions with high skills requirements programmes on the one hand, practical/technical/occupationally specific programmes on the other hand;
 - the cumulative theoretical duration in full time equivalence; and
 - the position in the national degree or qualification structure (first, second or further degree, research).

Combining these three independent dimensions is the only way to capture the broad variety in the provision of tertiary education. The choice of the combination depends on the problems to analyse.

Type of programmes

84. The first dimension to be considered is the distinction between the programmes which are theoretically based/research preparatory (history, philosophy, mathematics, etc.) or giving access to professions with high skills requirements (e.g. medicine, dentistry, architecture, etc.), and those programmes which are practical/technical/occupationally specific. To facilitate the presentation, the first type will be called 5A, the second, 5B.
85. With the increasing demand for tertiary education in many countries, the distinction between long streams and short streams is very important. The long stream programmes are more theoretical and can lead to advanced research programmes or a profession with high skills requirements. The short streams are more practically oriented.
86. As the organizational structure of tertiary education programmes varies greatly across countries, no single criterion can be used to define boundaries between ISCED 5A and ISCED 5B. The following criteria are the minimum requirements for classifying a programme as ISCED 5A, although programmes not satisfying a single criterion should not be automatically excluded. If a programme is similar in content to other programmes meeting each of these criteria, it should be classified at level 5A.
87. ISCED level 5A programmes are tertiary programmes that are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and profession with high skills requirements. They must satisfy a sufficient number of the following criteria:
- they have a minimum cumulative theoretical duration (at tertiary) of three years' full-time equivalent, although typically they are of 4 or more years. If a degree has 3 years' full-time equivalent duration, it is usually preceded by at least 13 years of previous schooling (see paragraph 35). For systems in which degrees are awarded by credit accumulation, a comparable amount of time and intensity would be required;
 - they typically require that the faculty have advanced research credentials;
 - they may involve completion of a research project or thesis;
 - they provide the level of education required for entry into a profession with high skills requirements (see paragraph 84) or an advanced research programme.
88. Qualifications in category 5B are typically shorter than those in 5A and focus on occupationally specific skills geared for entry into the labour market, although some theoretical foundations may be covered in the respective programme.

89. The content of ISCED level 5B programmes is practically oriented/occupationally specific and is mainly designed for participants to acquire the practical skills, and know-how needed for employment in a particular occupation or trade or class of occupations or trades - the successful completion of which usually provides the participants with a labour-market relevant qualification.
90. A programme should be considered as belonging to level 5B if it meets the following criteria:
- it is more practically oriented and occupationally specific than programmes at ISCED 5A, and does not provide direct access to advanced research programmes;
 - it has a minimum of two years' full-time equivalent duration but generally is of 2 or 3 years. For systems in which qualifications are awarded by credit accumulation, a comparable amount of time and intensity would be required;
 - the entry requirement may require the mastery of specific subject areas at ISCED 3B or 4A; and
 - it provides access to an occupation.

Cumulative theoretical duration

91. For initial programmes at tertiary, the cumulative theoretical duration is simply the theoretical full-time equivalent duration of those programmes from the beginning of level 5.
92. For programmes that require completion of other tertiary programmes prior to admission (see national degree and qualification structure below), cumulative duration is calculated by adding the minimum entrance requirements of the programme (i.e. full-time equivalent years of tertiary education prerequisites) to the full-time equivalent duration of the programme. For degrees or qualifications where the full-time equivalent years of schooling is unknown (i.e. courses of study designed explicitly for flexible or part-time study), cumulative duration is calculated based on the duration of more traditional degree or qualification programmes with a similar level of educational content.

93. The categories to be considered would be:
- and less than 3 years (particularly for ISCED level 5B);
 - and less than 4 years;
 - and less than 5 years;
 - and less than 6 years;
 - years and more.

National degree and qualification structure

94. This dimension cross-classifies both ISCED 5A and 5B qualifications by their position in the national qualification structure for tertiary education within an individual country.
95. The main reason the national degree and qualification structure is included as a separate dimension is that the timing of these awards mark important educational and labour market transition points within countries. For example, in country A a student who completes a three year Bachelor's degree programme will have access to a wide range of occupations and opportunities for further education, whereas the same student studying in country B (which does not distinguish between a first and second university degree) will only obtain a labour market relevant qualification after the completion of a full four or five year degree programme, even though the content may be similar to that of a second (Master's) degree programme in country A.
96. The 'position' of a degree or qualification structure is assigned (first, second or further, research) based on the internal hierarchy of awards within national education systems. For example, a first theoretically based degree or qualification (cross-classifying 'theoretically based' type of programme 5A with 'first' in the national degree and qualifications structure) would necessarily meet all of the criteria listed above for a theoretically based programme and lead to the first important educational or labour market qualification within this type of programme. The research degree is intended for the countries which have a non-doctoral research degree such as the Master of Philosophy in some countries and want to have it clearly distinguished in international statistics.
97. When 'theoretically based' programmes are organized and provide sequential qualifications, usually only the last qualification gives direct access to level 6, but all these programmes are allocated to level 5A.

98. Bachelor's degrees in many English-speaking countries, the 'Diplom' in many German-speaking countries, and the Licence in many French-speaking countries meet the content criteria for the first theoretically based programmes. Second and higher theoretically based programmes (e.g. Master's degree in English-speaking countries and Maîtrise in French-speaking countries) would be classified separately from advanced research qualifications, which would have their own position in ISCED 6 (see below).
99. Degrees or qualifications with a different numerical ranking in two countries may be equivalent in educational content. For instance, programmes leading to a 'graduate' or second degree in many English-speaking countries have to be classified at level 5 as is the case for long first degrees in many German-speaking countries. It is only by combining national degree structure with other tertiary dimensions, such as cumulative theoretical duration and programme orientation, that enough information is available to group degrees and qualifications of similar education content.

How the three complementary dimensions work at level 5

Theoretical cumulative duration at tertiary level ↓	LEVEL 5				
	5A Programmes			5B Programmes	
	First degree	Sec. and further degree	Research	First qualificat.	Second qualification
2 and < 3 years					
3 and < 4 years					
4 and < 5 years					
5 and < 6 years					
6 years and +					

Includes also:

100. This level includes all the research programmes which are not part of a doctorate, such as any type of Master's degree.
101. In some countries, students beginning tertiary education enrol directly for an advanced research qualification. In this case, the part of the programme concentrating on advanced research should be classified as level 6 and the initial years as level 5.
102. Adult education programmes equivalent in content with some ISCED 5 programmes could be included at this level.

**LEVEL 6 - SECOND STAGE OF TERTIARY EDUCATION
(LEADING TO AN ADVANCED RESEARCH QUALIFICATION)**

Principal characteristics

103. This level is reserved for tertiary programmes which lead to the award of an advanced research qualification. The programmes are therefore devoted to advanced study and original research and are not based on course-work only.

Classification criteria

104. For the definition of this level, the following criteria are relevant:

Main criterion

It typically requires the submission of a thesis or dissertation of publishable quality which is the product of original research and represents a significant contribution to knowledge.

Subsidiary criterion

It prepares graduates for faculty posts in institutions offering ISCED 5A programmes, as well as research posts in government, industry, etc.

Complementary dimensions

105. As the scope of this level is very restricted, no complementary dimension is needed.

Includes also:

106. The part concentrating on advanced research in those countries where students beginning tertiary education enrol directly for an advanced research programme (see paragraph 101).

II. BROAD GROUPS AND FIELDS OF EDUCATION

107. The fields of education in the original ISCED have been modified to eliminate overlapping, and increased to include new fields. Thus, there are now 25 fields of education as compared to 21 in the original version. Another innovation is the establishment of broad groups composed of fields of education having similarities. One such example is the broad group Health and Welfare comprising educational programmes in medicine, medical services, nursing, dental services and social services.
108. Further, it should also be stated that UNESCO intends to insert new fields as and when the need arises. Member States would be accordingly advised when this occurs. It is also recommended that inter- or multi-disciplinary programmes should be classified according to a majority rule, i.e. in the field of education in which the students spend most of their time.
109. A code list describing exactly how educational programmes/subject groups are allocated to the different fields of education will be given in the operational manual.

General Programmes

01 Basic programmes

Basic general programmes pre-primary, elementary, primary, secondary, etc.

08 Literacy and numeracy

Simple and functional literacy, numeracy.

09 Personal development

Enhancing personal skills, e.g. behavioural capacities, mental skills, personal organizational capacities, life orientation programmes.

Education

14 Teacher training and education science

Teacher training for pre-school, kindergarten, elementary school, vocational, practical, non-vocational subject, adult education, teacher trainers and for handicapped children. General and specialized teacher training programmes.

Education science: curriculum development in non-vocational and vocational subjects. Educational assessment, testing and measurement, educational research, other education science.

Humanities and Arts

21 Arts

Fine arts: drawing, painting, sculpture;

Performing arts: music, drama, dance, circus;

Graphic and audio-visual arts: photography, cinematography, music production, radio and TV production, printing and publishing;

Design; Craft skills.

22 Humanities

Religion and theology; Foreign languages and cultures: living or 'dead' languages and their literature, area studies;

Native languages: current or vernacular language and its literature;

Other humanities: interpretation and translation, linguistics, comparative literature, history, archaeology, philosophy, ethics.

Social sciences, business and law

31 Social and behavioural science

Economics, economic history, political science, sociology, demography, anthropology (except physical anthropology), ethnology, futurology, psychology, geography (except physical geography), peace and conflict studies, human rights.

32 Journalism and information

Journalism; library technician and science; technicians in museums and similar repositories;

Documentation techniques;

Archival sciences.

34 Business and administration

Retailing, marketing, sales, public relations, real estate;
 Finance, banking, insurance, investment analysis;
 Accounting, auditing, bookkeeping;
 Management, public administration, institutional administration, personnel administration;
 Secretarial and office work.

38 Law

Local magistrates, 'notaires', law (general, international, labour, maritime, etc.), jurisprudence, history of law.

Science**42 Life sciences**

Biology, botany, bacteriology, toxicology, microbiology, zoology, entomology, ornithology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences.

44 Physical sciences

Astronomy and space sciences, physics, other allied subjects, chemistry, other allied subjects, geology, geophysics, mineralogy, physical anthropology, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, marine science, vulcanology, palaeoecology.

46 Mathematics and statistics

Mathematics, operations research, numerical analysis, actuarial science, statistics and other allied fields.

48 Computing

Computer sciences: system design, computer programming, data processing, networks, operating systems - software development only (hardware development should be classified with the engineering fields).

Engineering, manufacturing and construction**52 Engineering and engineering trades**

Engineering drawing, mechanics, metal work, electricity, electronics, telecommunications, energy and chemical engineering, vehicle maintenance, surveying.

54 Manufacturing and processing

Food and drink processing, textiles, clothes, footwear, leather, materials (wood, paper, plastic, glass, etc.), mining and extraction.

58 Architecture and building

Architecture and town planning: structural architecture, landscape architecture, community planning, cartography;
Building, construction;
Civil engineering.

Agriculture**62 Agriculture, forestry and fishery**

Agriculture, crop and livestock production, agronomy, animal husbandry, horticulture and gardening, forestry and forest product techniques, natural parks, wildlife, fisheries, fishery science and technology.

64 Veterinary

Veterinary medicine, veterinary assisting.

Health and welfare**72 Health**

Medicine: anatomy, epidemiology, cytology, physiology, immunology and immunoaematology, pathology, anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, neurology, psychiatry, radiology, ophthalmology;

Medical services: public health services, hygiene, pharmacy, pharmacology, therapeutics, rehabilitation, prosthetics, optometry, nutrition;

Nursing: basic nursing, midwifery;

Dental services: dental assisting, dental hygienist, dental laboratory technician, odontology.

76 Social services

Social care: care of the disabled, child care, youth services, gerontological services;

Social work: counselling, welfare n.e.c.

Services

81 Personal services

Hotel and catering, travel and tourism, sports and leisure, hairdressing, beauty treatment and other personal services: cleaning, laundry, dry-cleaning, cosmetic services, domestic science.

84 Transport services

Seamanship, ship's officer, nautical science, air crew, air traffic control, railway operations, road motor vehicle operations, postal service.

85 Environmental protection

Environmental conservation, control and protection, air and water pollution control, labour protection and security.

86 Security services

Protection of property and persons: police work and related law enforcement, criminology, fire-protection and fire fighting, civil security;
Military.

Not known or unspecified

(This category is not part of the classification itself but in data collection '99' is needed for 'fields of education not known or unspecified'.)

Glossary

Course

A course for this purpose is taken to be a planned series of learning experiences in a particular range of subject-matters or skills offered by a sponsoring agency and undertaken by one or more students.

Formal education (or initial education or regular school and university education)

Education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous 'ladder' of full-time education for children and young people, generally beginning at age five to seven and continuing up to 20 or 25 years old. In some countries, the upper parts of this 'ladder' are constituted by organized programmes of joint part-time employment and part-time participation in the regular school and university system: such programmes have come to be known as the 'dual system' or equivalent terms in these countries.

Non-formal education

Any organized and sustained educational activities that do not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions, and cater to persons of all ages. Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out-of-school children, life-skills, work-skills, and general culture. Non-formal education programmes do not necessarily follow the 'ladder' system, and may have differing duration.

Special needs education

Educational intervention and support designed to address *special education needs*. The term 'special needs education' has come into use as a replacement for the term 'special education'. The older term was mainly understood to refer to the education of children with disabilities that takes place in special schools or institutions distinct from, and outside of, the institutions of the regular school and university system. In many countries today a large proportion of disabled children are in fact educated in

institutions of the regular system. Moreover, the concept of ‘children with special educational needs’ extends beyond those who may be included in handicapped categories to cover those who are failing in school for a wide variety of other reasons that are known to be likely to impede a child’s optimal progress. Whether or not this more broadly defined group of children are in need of additional support depends on the extent to which schools need to adapt their curriculum, teaching and organization and/or to provide additional human or material resources so as to stimulate efficient and effective learning for these pupils.

Adult education (or continuing or recurrent education)

The entire body of organized educational processes, whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adults by the society to which they belong, improve their technical or professional qualifications, further develop their abilities, enrich their knowledge with the purpose:

- to complete a level of formal education;
- to acquire knowledge and skills in a new field;
- to refresh or update their knowledge in a particular field.