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ABSTRACT

This guide to the use of International Standard Classification of Education (ISCED) provides a summary of what ISCED is, what it has been designed to do, some of the things it has not been designed to do, and how it may be used. The system classifies courses, programs, and fields of education according to their educational content. The educational content of each course, program, and field is designated according to its level and its subject matter. ISCED level categories, with their code numbers, are the following: (0) education preceding the first level, (1) education at the first level, (2) education at the second level: first stage, (3) education at the second level: second atage, (5) education at the third level: first stage, of the type that leads to an award not the equivalent to a first university degree, (6) education at the third level: first stage, of the type that leads to a first university degree or the equivalent, (7) education at the third level: second stage, of the type that leads to a postgraduate university degree or the equivalent, and (9) education not definable by level. For related document see TM003536 and TM003537. (RC)

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UNITED NATIONS EDUCATIONAL. SCIENTIFIC AND CULTURAL ORGANIZATION

INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION (ISCED)

A Provisional Guide to the use of the International Standard Classification of Education (ISCED)



INTRODUCTION

Official statistics have become an important feature of modern life. The increasing complexity of economic and social institutions and of their interactions in industrial societies has brought a rapid growth in the demand for statistics as a factual basis for decision-making in most fields of human activity. In developing economies seeking a sound basis for development plans, statistics have come to be an essential tool.

The central role of education in the economic and social programmes of countries at all levels of development need not be examined here. It is sufficient to note the very rapid growth of educational activity throughout the world during the past quarter century, whether measured in terms of enrolment, employment, or expenditure. Rapid expansion on such a scale is likely to be of uneven quality even within a country unless its direction and thrust are guided by a careful choice of objectives and of the most effective means for attaining them. Furthermore, the programmes chosen must be evaluated periodically in terms of their effectiveness in attaining the desired objectives. Statistical data of all kinds play an essential role in the design, control and evaluation of such programmes.

Statistics can be used most effectively if they are based upon standard terminology, concepts, definitions, methods of tabulation, and classification. Such standards should be applied as widely as possible to ensure maximum comparability not only in data obtained from different sources on the same or closely related events, but in data obtained from the same sources at Much has been done both nationally and internationally to different times. improve the comparability of statistics relating to population, trade, industrial activity, agriculture, labour, health, education, telecommunications, transport, and many other fields. (1) Of particular interest here is the group of more or less related international standard classifications that have been developed These comprise the International Standard Industrial Classifisince 1948. (2), most recently revised in 1968, designed as a standard classification, by industry, of establishments in all branches of economic activity; the Standard International Trade Classification (3), now under revision, which constitutes a standard commodity classification for imports and exports; and the International Standard Classification of Occupations (4), most recently revised in 1968, providing a standard classification of occupations for use in statistics of the labour force as well as in the operation of manpower programmes such as : immigration, employment placement, vocational guidance and vocational training. The latest addition to this battery of statistical standard classification systems is the international Standard Classification of Education (ISCED) now being developed by UNESCO.

⁽³⁾ United Nations, Standard International Trade Classification, New York 1950. (Statistical Papers Series M No Rev. 1.) This is the latest edition available at the time of writing.





⁽¹⁾ For a summary of international standards see: United Nations, <u>Directory</u> of International Standards for Statistics, New York, 1960 (Statistical Papers Series M N° 22, Rev.1.)

⁽²⁾ United Nations, International Standard Industrial Classification of all Economic Activities, New York, 1966 (Statistical Papers Series M N 4, Rev. 2.)

This guide to the use of ISCED is intended to provide a summary of what ISCED is, what it has been designed to do, some of the things it has not been designed to do, and how it may be used. Some of these points are covered more fully in the introduction to the ISCED volume (1) to which reference should be made for additional information.

ISCED

As a classification of education, ISCED classifies courses, programmes and fields of education according to their educational content. The educational content of each course, programme and field is designated according to its level and its subject matter. For this purpose a course is defined as: a planned series of learning experiences in a particular range of subject matter or skills offered by the sponsoring agency and undertaken by one or more students. A programme is defined as: a selection of one or more courses or a combination of courses usually chosen from a syllabus. Such a programme has an expressed or implied aim such as qualification for more advanced study, qualification for an occupation or a range of occupations, or solely an increase in knowledge or understanding. A field is: a grouping of programmes related to the same broad subject matter area.

The most detailed categories in ISCED are groups of programmes that are related in terms of level and subject matter content, e.g. programmes in history at a given level, (each such programme group being identified by a five-digit code number). Programme groups are further aggregated into fields composed of programme groups related to the same general subject matter within a level, e.g. humanities programmes at a given level (each such field being identified by a three-digit code number). Fields and their constituent programme groups are designated within levels which, as their name implies, are categories representing broad steps of educational progress from very elementary to more and more complicated learning experience (each level being identified by a one-digit code number). ISCED is, therefore, a three-stage classification system containing groups in an hierarchical arrangement from very broad level categories to broad subject matter fields to narrower subject matter programme groups, (the programmes constituting programme groups are composed of courses which represent the smallest educational units recognized In the ISCED system of definitions but courses are not specified separately in the classification system and are not assigned code numbers).

ISCED level categories, with their code numbers, are the following :-

- O Education preceding the first level
- i Education at the first level
- 2 Education at the second level: first stage
- 3 Education at the second level: second stage

⁽¹⁾ International Standard Classification of Education, Part 1, UNESCO, Paris, September 1972. (pp. 1-17).



- 5 Education at the third level: first stage, of the type that leads to an award not equivalent to a first university degree
- 6 Education at the third level: first stage, of the type that leads to a first university degree or equivalent
- 7 Education at the third level: second stage, of the type that leads to a postgraduate university degree or equivalent
- 9 Education not definable by level
- A final category, coded X "No Education", may be provided as required, for example, on surveys collecting information on a population, including the stock of those in the population who have had formal education according to the highest level attained by each. This category is not required for statistics of current educational operations.

Note that code numbers 4 and 8 are not used, merely because they are not needed at present. Gaps of this type exist throughout the ISCED code system so that additional categories may be inserted or existing categories amended and a different code assigned without necessarily upsetting the system.

Annex I to this guide provides a list of the fields and programme groups within each ISCED level category. It illustrates the growing complexity of subject matter convent through the levels. It also shows very clearly the fact that some subjects are not found (or do not constitute separate fields), at some levels, e.g. programmes in Fine and applied arts begin with level category 3, and Humanitles programmes at level category 5, while literacy programmes are found only in level category 1.

ISCED is a standard classification of Education

As a standard classification system, ISCED is intended for use with a variety of educational data. One of its principal functions is to provide a standard format for assembling, reporting and compiling statistics of different educational phenomena (e.g. enrolment; teaching staff; awards, degrees or diplomas; finances; examinations; etc.) both within a country and Thus, iSCED is a tool designed to promote international internationally. comparisons and is not a new statistical collection programme. intended to supplant national classifications of education. The international character of ISCED is explained in paragraphs 36 and 37 of the introduction to the ISCED volume $\sqrt{R_9}$ v.i., part I, September 1972/ where it is pointed out that important features of national systems of education that are related to local circumstances cannot be reflected in ISCED. Paragraphs 44 to 47 of the introduction provide a short explanation of a method by which ISCED may be used as the basis for a national classification of education by countries not having such a system. To promote internationally comparable statistics, for both national and international use, it is important that the groups in each national classification be so constituted that they can be rearranged into the ISCED pattern.)



Thus, ISCED is a classification of programmes of education, not a classification of people, sponsoring agencies, institutions (schools), or Of course the individuals enrolled can be shown in ISCED categories according to the kinds of programmes in which they are enrolled and the total of enrolment in each ISCED category can be distributed on other axes, according to personal characteristics such as sex, age, nationality, whether attending full- or part-time, etc. Similarly, the number of programmes offered under each ISCED category can be distributed according to type of sponsoring agency, type of institution in which given, method of instruction (classroom, correspondence, radio or T.V. broadcast, etc.), etc. When survey for . are sent out the various characteristics required on enrolment; educ. Jonal programmes; teaching staff; institutions; finances; degrees, diplomas or qualifications granted; etc. can be specified. Changes can be introduced into the statistical questionnaires on detail of this type to meet changing circumstances and changing needs without alteration in ISCED. other words, desirable stability can be maintained in the categories of educational programmes for which data are collected over a period of years through infrequent revision of ISCED. At the same time the personal and other characteristics of the units for which the data are collected can be varied in both quantity and type to meet evolving needs.

Some things ISCED doesn't do

ISCED does not constitute a programme for data collection. that uses ISCED must designate the kind of data required, the coverage and the items of information sought. For example, a survey of "adult education" will provide a definition of the field; the personal characteristics of registrants or enrollees required; the particulars of programmes, teaching staff and A quite different set of Items would be financial items sought, etc. specified for a survey of degrees, diplomas, certificates, etc. awarded in a particular year. Yet each survey could use ISCED as the basic classification system for the programmes of education involved. In fact, the use of ISCED will enhance the value of all surveys in ensuring comparability of the resulting data with respect to categories of education. (Annex !! to this provisional guide provides an example of a manual on the use of ISCED in a programme of Adult Education Statistics. It is merely an example and not a programme for collection of data.)

in the case of enrolment statistics, for example, ISCED can accommodate data of events or of individuals. Individuals may enrol simultaneously in different programmes of education, frequently in different institutions. The two or more events involving the same person may be recorded quite separately or they may be linked in the records to provide information about the enrolment of individuals. ISCED is not directly concerned with the record-keeping practices of educational authorities which is a matter for arrangement between the educational and statistical authorities. This applies to all kinds of records, not just to enrolment.

The question of definition of the educational events or items to be collected is important statistically, but again ISCED is not directly concerned. For example, the definition of a student or an enrolment may be based upon initial enrolment (the gross figure); or on effective enrolment (the net figure), i.e. the number still enrolled after cancellations and drop-out; or on the number that had attended a given proportion of the sessions; or on average figure based upon average daily attendance. Each of these and ERICer definitions is appropriate for various purposes. Similarly, definitions

of teaching staff, student "wastage", programme completion, etc. will vary according to the needs to be served by the statistics. ISCED can accommodate such data based upon any set of definitions.

Enough examples have been given to indicate the role of ISCED in statistical surveys. Its main function is to provide a consistent structure for assembling data on education. Such data are, however, assembled to be used. Thus, the format of ISCED has been designed to provide statistics that will be useful in making international comparisons and particularly in educational planning. This primary purpose will be served most advantageously when ISCED is used to obtain data on educational events from different sources on a standard format.

Innovations in statistical practice introduced by ISCED

The concept of levels in education and their reflection in education statistics is not new. The sequential nature of many educational processes naturally leads to their organization and description in terms of a system of levels in an hierarchical relationship; completion of one level by a student ordinarily being a prerequisite to entry of the next highest level along a particular educational path. Different paths within a country's educational system often result in more than one type of education at a given level. A system of levels was recognized in the <u>Recommendation concerning the international standardization of educational statistics</u>, adopted by the General Conference of UNESCO at its tenth session, Paris, December 1958, and this plan has been the basis of UNESCO's statistical data collection ever since.

ISCED new introduces two innovations to the UNESCO system of levels:
(a) Education at the second level has been split into two separate level categories and education at the the third level into three; and (b) each level category in ISCED is defined to include all education that can be identified as at that level. The following figure illustrates the relationship between the ISCED level categories and the levels as defined in the UNESCO Recommendation of 1936.



RELATIONSHIPS BETWEEN ISCED LEVEL CATEGORIES AND THE LEVELS AS DEFINED IN THE UNESCO RECOMMENDATION OF 1958

ω	page		. •							1	
LEVELS DEFINED IN UNESCO RECOMMENDATION, 1958	Education preceding the first level	Education at the first level	Education at the second level	AT THE THIS	a. Education at universities and equirvalent institutions leading to an academic degree	b. Teacher education at non-university institutions	c. Other (third level) education at non- university institutions	EDUCATION NOT CLASSIFIED BY LEVEL	« a. Special education.	b. Other education	
* 1											
ISCED LEVEL CATEGORIES	Education preceding the first level	Education at the first level	Education at the second level : first stage	Education at the second level : second stage	Education at the third level: first stage, of the type that leads to an award not equivalent to a first university degree	Education at the third level : first stage,	or the type that leads to a lifet university degree or equivalent	Education at the third level : second stage, of the type that leads to a postgraduate	university degree or equivalent	Education not definable by level	

. denotes sub-divisions to be undertaken where possible



The above figure provides a graphic illustration of the changes that the use of ISCED will introduce into the organization of education statistics. It is clear that the basic arrangement of data for the first three ISCED level categories is very similar to that in the earlier recommendation. The differences are: the former "Education at the second level" has been split into two categories for the first and second stages of that level, a split that is becoming more and more apparent in the organization of secondary education in many countries; and segments of the former "Education not classified by level" are now included in all the ISCED level categories. These segments are: special education for the handicapped in levels 0, 1, 2 and 3 and adult and out-of-school education in levels 1, 2, 3, 5 and 6 (with possibly some in 7).

An examination of the 1958 Recommendation makes it clear that the levels of education proposed at that time were to be applied only to statistics of educational institutions (1). Thus, each of the three main levels represented principally a type of institution or school, i.e. pre-school or kindergarten, primary school, secondary school, and post-secondary institutions sub-divided between universities and others. The final category was "Education not classified by level", i.e. no attempt was to be made to classify by level except for the typical institutions that constitute the regular school and university system in most countries.

ISCED, on the other hand, does not accept the educational institution as the principal statistical unit for which educational data are to be collected (although, of course, the institution or school is often the unit from which the statistics may be secured) on the grounds that the range of levels of education provided in particular types of institutions varies so much from country to country and even within some countries. "A principal objective of ISCED is to promote the development of comparable data on education at various levels from different countries. Such nationally disparate factors as types of educational institutions, legal provisions governing the period of compulsory education, and practices respecting awards, diplomas or degrees granted for successful completion of a programme cannot be used internationally as criteria for determining educational level." (2) Thus, in ISCED the educational level of a programme is determined not by the kind of school in which it is given or the educational backgrounds of those enrolled, but on the basis of the minimum prior education required to undertake the programme.

Procedure to be used in determining educational level

(a) "Core" and "non-core" programmes

The introduction to the ISCED volume contains a short examination of what is called an educational "core" that exists in all countries. This is the system found in the regular school and university programmes of countries, a designed (usually by a public authority) for the education of children and youth.

⁽²⁾ ISCED I.REV., UNESCO. Paris, September 1972 - page 4.



⁽¹⁾ Monval of Educational Statistics, UNESCO, Paris, 1961, pp. 236-238.

The system is organized in a number of sequential stages frequently with paths branching off at particular points. Although the usual time spent by students in particular stages varies from country to country, the overall sequence is found to be quite uniform and the total time (i.e. full-time equivalent) spent by a typical student from original school entry to university graduation is amazingly stable around the world. Thus, if the disparate "stages" in national systems imposed by the national pattern of educational institutions can be ignored, it is found that an internationally applicable set of ISCED level categories for the universal educational "core" can be described very briefly as follows:-

- Education preceding the first level, where it is provided, begins at age 3, 4 or 5 and lasts for about one or two years.
- Education at the first level usually begins, therefore, at age 5, 6 or 7 and it lasts for about five years.
- 2 Education at the second level: first stage, begins at about age 12 and lasts for about three years.
- Education at the second level: second stage begins at about age 15 and lasts for about three years.
- Education at the third level: first stage, of the type that leads to an award not equivalent to a first university degree begins at about age 18 and lasts for about three years. Thus, at about age 21 students who have progressed through the regular school system to complete these programmes are usually ready to enter employment.
- Education at the third level: first stage, of the type that leads to a first university degree or equivalent also begins at about age 18 and lasts for about four years. Thus students who have progressed through the school system to complete their first degree are usually ready for employment or for postgraduate study at about age 22.
- Education at the third level: second stage, of the type that leads to a postgraduate university degree or equivalent includes all education beyond level 6.

The above is a formalized sketch of the "core" intended simply to identify it for the purpose of international definition. The summary merely provides a scale or measuring rod that can be used to identify corresponding stages in any national system.

The "core", however, does not contain all the educational programmes that can be classified by level. Many programmes of "out-of-school" and "vocational" education or training (often lumped under the heading of "adult education") deal with subject matter requiring previous formal education on the part of those who undertake them. The actual educational histories of those enrolled for many non-core programmes is likely to be very mixed, so the level category into which such programmes can be fitted depends upon the minimum prior education required. It is the programme that is being analysed, not the individual histories of the enrollees. The philosophy behind this practice is expressed in the introduction to ISCED as follows:

"The decision to combine out-of-school education with the more structured school and university systems and to include adult as well as child education in a single classification system may complicate the task of data collection inasmuch as out-of-school and adult education are provided by a multiplicity of agencies. It is, however, in harmony with modern developments in educational policy and planning and with the new conception of permanent education. It recognizes that education is not an instructional 'package' provided to children and young persons in schools and universities, but is a continuing process providing opportunities for enlarging experience, understanding and skill throughout the life of the individual and responding to the changing needs of society."

Programmes of "out-of-school" education are classified by level category in ISCED, then, through their associations with the school and university programmes that constitute the educational "core". Even if the subject content of an "out-of-school" programme is not identical with that of any programme in the core, it can often be identified as requiring at least a given minimum of "core" education for admission. Most programmes of "non-core" education are of this type because of the essentially sequential nature of the educational process. Only if a programme is such that no particular minimum educational prerequisite can be determined, should it be placed in category 9 - Education not definable by level. Note again the basic difference between the residual category in the 1958 Recommendation, i.e. "Education not classified by level" and that of ISCED, i.e. "Education not definable by level."

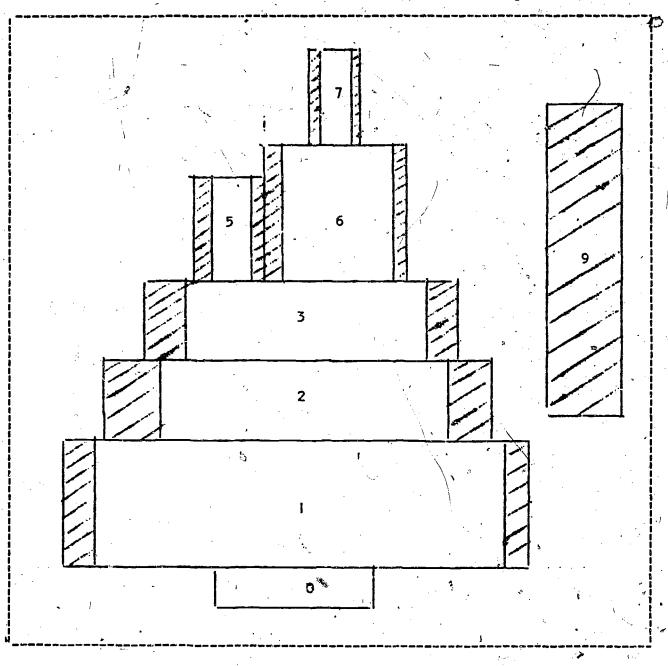
Referring again to the figure on page 6, note the heavy concentration of lines indicating transfer of educational components from the 1958 categories under Education not classified by level to ISCED level categories 1, 2 and 3, in particular, and also to 5 and 6. Apart from "special education" which is classified by level in categories 0, 1, 2 and 3 in ISCED, these transfers relate mainly to "adult education".

The following figure (page 10) illustrates the composition of the ISCED level categories in terms of "core" and "non-core" components.



A REPRESENTATION OF THE ISCED LEVEL, CATEGORIES SHOWING THE RELATIONSHIP BETWEEN "CORE" AND "NON-CORE" PROGRAMMES IN EACH

(The Numbers are those of the ISCED Level Categories)



LEGEND :







the universe of education covered by TSCED.

, Tore

non-core

Distances shown on the vertical axis are roughly proportional to the number of years spent at each level by a full-time student in a "core" programme. This is, of course, merely illustrative. Distances on the horizontal axis are assigned arbitrarily except that the whole figure is given a pyramidal shape, indicating a falling-off in total registration, etc. at each successive level category (except from level 0-1). This shape results from the characteristics of the "core" and its predominance in the whole system. Note that the noncore part does not exhibit overall reduction at successive levels. In fact it is likely that most countries will record a higher incidence of non-core programmes in categories 2, 3, 5 and 9 than in the others, i.e. "adult education" programmes are likely to be concentrated mainly in categories 2, 3, 5 and 9 except for the large enrolment in literacy programmes in category i in some countries.

Non-core programmes are shown at both horizontal extremes of the relevant level categories merely to indicate their relationship to the core, i.e. they "surround" it in the sense that their subject content may contain any of the subjects typically found in the corresponding core programmes and even some that are not typical of the core. Subject content is not in itself a criterion for determining level.

Note that level categories 5 and 6 share space on the vertical axis to indicate their hierarchical relationship, i.e. they are alternatives for students in core programmes who have completed category 3. Category 7 is related vertically only to category 6.

Category 9 is shown off by itself because it is unrelated to the hierarchical system underlying the others and is, of course, completely non-core. At the same time it comes within the "universe" of education covered by ISCED.

Some non-core programmes are virtually identical with some in the core while others are very different from core programmes. For example, programmes organized in many countries for those who have been out of school and who desire to obtain a qualification permitting them to return to school or university, though often accelerated, are very close in content to core programmes. non-core programmes such as some vocational programmes, are very different from those in the wore, yet they often require of the students knowledge of subjects such as mathematics, natural sciences, social sciences, or special reading and writing abilities that can be assessed as equivalent to the knowledge required to undertake certain "core" programmes (which, of course, have known levels). By means such as these, the appropriate levels of many, if not most, non-core programmes can be determined. The degree or certainty that can be attached to such determination will vary from very strong to very doubtful cases. theless, if any grounds at all can be found to determine the level of a programme, it is suggested that they be applied and that the programme be assigned to the indicated level category. Only if no indication of level can be discovered should a programme be placed in category 9. (1) This rule is

⁽¹⁾ Note, however, that the ability merely to read and write is a requirement for admission to almost all programmes of adult or out-of-school education except literacy programmes. If this were taken to be a criterion for determination of level, many programmes having no other indication of level would be placed in level category 1 in which the ability to simply read and write is usually a prerequisite for admission to the second and subsequent years of full-time schooling in the "core". If no other indication of level than the ability to comprehend written material and to copy written instructions etc. can be found, the programme in question should be placed in level category 9.

applied because any other approach is likely to result in category 9 becoming a repository for all difficult cases as well as truly undefinable cases. If that were to happen the reporting of statistics from different countries and for particular countries at different times would tend to be subject to undesirable differences of interpretation regarding level for particular out-of-school programmes.

(b) Level is a characteristic of an educational programme

The characteristics of e students enrolled in a programme, the kind of agency sponsoring it, or the nature of the institution providing it are not decisive in the determination of the programme's level. ISCED is a classification of programmes of education, not a classification of people, sponsoring agencies, or institutions. As explained earlier, the personal characteristics of those enrolled, or of the teaching staff involved; the characteristics of the programmes; the types of sponsors or of institutions providing the programmes; can be recorded as distributions on another axis of the totals assigned to ISCED categories. All these facts (and others) are important to statistics of education but they do not fit into the ISCED nierarchy.

Reporting on statistical units that overlap ISCED categories

(a) Enrolment

Enrolment in programmes that contain material appropriate to more than one ISCED level category should be assigned to the category in which most of the material fits (i.e. most in terms of the time spent in classroom, correspondence, or other instruction). For example, a programme in which students are enrolled may combine some elements equivalent to those found in the final phases of level category I and the beginning phases of category 2; or a programme may combine elements equivalent to those in the final phases of category 3 and the beginning phases of category 6; or a programme may cover two level categories, e.g. categories 2 and 3. If the instruction time involved in the different level categories can be determined and if one predominates, the assignment can be made on that basis. If the relative instruction times are indeterminate or if they are equally divided between level categories, then the enrolment should be assigned to the higher level category. When such an assignment is made an appropriate footnote should be given in the statistical return.

(b) <u>Institutions</u>

Many educational institutions or groups of institutions under common management offer programmes of education falling within more than one ISCED level category. When reporting data for programmes from such overlapping institutions, the programmes should be assembled into the appropriate ISCED categories. This can be done either on the basis of the number of years of full-time instruction preceding entry into the programme in question or on the prior educational attainment required to handle the material in the programme. In any case, programmes should be considered according to their "levels" as defined for ISCED purposes and not on the basis of the kind of institution

providing them - e.g. primary schools, secondary schools, universities, etc.

If, as in the case of some financial items, or certain teaching staff, the institution is the smallest unit for which data can be reported, each institution should be assigned as a whole to the level category into which the principal part of its enrolment fits. If the enrolment is equally divided the institution should be assigned to the higher level category (with an appropriate footnote in the statistical return).

(c) Teaching Staff.

Although the majority of teachers are connected with programmes that fall into a particular ISCED level category, some are involved in teaching a programme that overlaps the categories or in more than one programme in more than one level category. Each teacher should be assigned to one category, where possible on the basis of the time spent in teaching at each level. If the time spent at each level is equal or indeterminate, the teacher should be assigned to the higher level (with a footnote indicating the number of such cases).

The above examples of types of statistical units that overlap ISCED level categories are intended to be illustrative. The convention for handling cases of overlap given in the illustrations should be applied to cases of overlap encountered in reporting on other statistical units such as diplomas and awards granted, revenue and expenditure items, etc.

Subject matter

Within each ISCED level category, sub-divisions by subject-matter content of programmes are made at two stages, i.e. broad subject fields within which narrower subject categories are specified for groups of programmes. For example, in level category 3 Education at the second level: second stage, broad subject fields such as General programmes containing little or no technical education, Teacher training programmes, Religion and theology programmes, Commercial and business programmes, etc. are shown. Within these broad fields, categories for groups of programmes such as: General teacher training programmes, Teacher training for pre-school and kindergarten teachers, General commercial programmes, Secretarial programmes, etc. are specified.

Altogether, 22 categories of broad subject fields are used in ISCED, being applied consistently throughout the various level categories wherever they are applicable. Within fields, the subject-matter groupings of programmes are presented in as consistent a form as the differences in subject content at different levels permits. Consistency in subject-matter group content at different levels has obvious advantages, but it is less important for a classification like ISCED than conformity to the actual pattern of subject content found in programmes in most countries. Annexe I to this manual provides a tabular presentation of the level, field and programme group categories. It shows very clearly the increasing subject specialization of programmes in the higher level categories. The concentration of "practical" subject matter in categories 2, 3 and 5 is also significant, e.g. Transport and communication programmes; and Trade, craft and industrial programmes.



Programmes that overlap subject-matter categories

In most countries the subject content of programmes in education is constantly under review and is frequently revised. This fluidity is important if the programmes are to reflect changing social and economic conditions, plans and objectives. It is to be expected, therefore, that no set of subject-matter categories can accommodate all existing programmes with no overlap. Thus, the field and programme group categories in ISCED should be interpreted as referring to programmes primarily consisting of the subject-matter content specified. Of course, the ISCED groupings have been designed on the basis of common subject combinations and therefore many (if not most) programmes will fall into one field and often into one programme group within the field.

Programmes that do not fall entirely within one field should be assigned to the field within which the principal part of the programme falls from the viewpoint of classroom or similar instructional (including laboratory and field work) time involved. If the instructional time is equally divided between two fields (e.g. mathematics and physics, or social science and religion) the programme should be assigned to the first-named field in its title. This rule assumes that the major field is named first and the minor second, and although this assumption may not be universally correct, a definite rule is required to handle the relatively few cases involved. The same rule should be applied to the assignment of programmes that overlap categories for programme groups within a field. For example, a programme in music and drama in field 518, or a programme in agricultural economics and animal husbandry in field 562.

Conclusion

The existence of a standard classification system does not, in itself, ensure comparable statistics from different sources. Of greater importance is uniform application of the standard system in the collection and tabulation of data. This manual is designed to provide a general guide for uniform application of ISCED. With experience in its use in many countries leading to additions and improvements over the years, its value should increase. Comments and suggestions for improvement will be appreciated. Another valuable aid to uniform application of ISCED would be a more complete index of terms used to describe educational programmes in different countries and showing the ISCED code for each term. Steps are now being taken to expand the index in the ISCED volume.



EDUCATION PRECEDING THE EDUCATION AT THE FIRST EDUCATION AT THE SECOND EDUCATION AT THE SECOND LEVEL: LEVELS FIRST LEVEL LEVEL : FIRST STAGE SECOND STAGE FIELDS General programmes General programmes for 101 General elementary General programmes General programmes containing little children of pre-primary programmes containing little or no or no technical education technical education 10100 General elementary 30101 General programmes with no special 00100 General programmes for programmes General programmes containing little or no 20100 subject emphasis children of pre-primary 30104 General programmes with special emphasis on humanities and social technical education 3010R General programmes with special emphasis on mathematics and natural or applied sciences 30199 General programmes with special emphasis on other non-technical subjects Elementary programmes 104 Elementary programmes with some vocational with some vocational emphasis emphasis Elementary programmes with some vocational emphasis 08 Simple literacy 108 Simple literacy programmes programmes 10800 Simple literacy programmes 10 **Functional literacy Functional literacy** programmes programmes 11000 **Functional literacy** programmes Teacher training and Teacher training 314 Teacher training programmes education science programmes programmas 31401 General teacher treining programmes Teacher training with specialization in a 31408 21401 General teacher training specific vocational or practical subject for elementary school teaching 31412 Teacher training for pre-school and 21408 Teacher training for kindargarten teachers 31416 specialists such as those Teacher training for teachers in adult in vocational or adult aducation 31422 Teacher training for teachers of education programmes handicapped children 21416 Teacher training for 31499 Other specialized teacher training sduft literacy teachers programmes Fine arts programmes 318 Fine and applied arts programmes 31804 Programmes in drawing and painting 31812 Programmes in handicrafts
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ANNEX II - THE USE OF ISCED IN A PROGRAMME OF ADULT EDUCATION STATISTICS

INTRODUCTION

The importance of Adult Education

A growing recognition of the importance of adult education is evident on all sides. The expansion of scientific research, the knowledge explosion, the growth of world population, the accelerated rate of change in human society and its environment resulting from new technology, the dangers to the environment that many of these changes threaten - all these mean that the knowledge acquired by young people at school and university tends to become inadequate in the changed society, work and environment that they encounter in adult life.

If those who have been exposed to school and university education are insufficiently equipped for life in a changing world, how much less equipped are those who have lacked this experience. In many developing countries the population explosion has outpaced the possible expansion of the school system, so that a growing number, albeit a smaller percentage, of the world's adult population is still illiterate. For them education and training are vitally important, both for their own fulfilment and to enable them to make a significant contribution to national development. At the same time in industrialized countries, increasing possibilities for leisure arising from the new technology lead to extensive demands for adult education which will contribute to a more creative and satisfying life.

Finally, economic considerations suggest that the increasing application of scarce resources to the expansion of the educational system in countries at all stages of development be based upon an examination of the relative cost-effectiveness of expansion in the regular school system as against expansion in facilities for education and training for younger adults.

The need for Adult Education Statistics

The increasing importance of adult education should be reflected in integrated plans for life-long education as an element in national development plans. Planning, however, is impossible without adequate statistics.

Educational statistics from the school and university (1) systems have been available, in all countries and internationally, for many years. In the case of adult education, however, little or no statistical information exists. This is due in large measure to the variety of educational activities undertaken by adults and young people out of school (2), to the sporadic nature of much of this activity, and still more to the diversity of agencies, both governmental and private, which provide such educational programmes.

⁽¹⁾ In this context, "university" is taken to include education provided by all institutions of higher education, i.e. junior colleges, etc. as well as universities.

The term "adult education" is used throughout this document as synonymous with "out of school education".

The need for more adequate statistics of adult education is on record in numerous reports resulting from national and international enquiries and meetings. Most recently the Third International Conference of Adult Education sponsored by UNESCO in Tokyo in August 1972 called attention to "the absence of any methodology for listing the various forms of adult education and the imperative need for statistical data in order to work out and implement adult education plans. (1)

ISCED

Since 1966, parallel to the growing demand, the Office of Statistics of UNESCO, with the help of consultants and two international meetings of experts, has developed an international Standard Classification of Education (ISCED), as an instrument "for collecting and compiling statistics of education both within individual countries and internationally".

It is intended that "this classification (ISCED) will apply to data both from the school and university systems and to the wide range of programmes of organized education and training provided outside these systems."

ISCED thus provides a framework for the collection and analysis of statistics in adult education. But it is just' a framework. The task of establishing efficient statistical systems to accommodate adult education within countries and on a world scale will still be formidable. Recognizing these problems, the Tokyo Conference recommended (2) that Unesco:

- "I. sponsor systematic research with a view to defining the criteria for classifying adult education activities;
- 2. Invite Member States to support such research;
- 3. visualize an initial data-gathering project with a view to setting up, after the necessary analyses, assessments and adjustments have been carried out, a permanent system for the gathering and processing of the statistical data on adult education needed at the stages of evaluation and forecasting."

Purposes of this present Manual

This Manual is intended to offer guidance to Member States undertaking pilot studies of the kind envisaged in the third point of the above recommendation, and eventually, after testing and modification, to become the standard operating Manual for all countries. It suggests the type of organization required in a typical country, the need for existing statistical systems to be adapted or new systems planned, and how the collection of data should be planned.

⁽¹⁾ UNESCO, Final Report of the International Conference of Adult Education, CONFEDAD 8, Paris, 1972, Recommendation 15.



The Manual is written in a categorical style in an attempt to clarify and standardize procedures. This should not be taken to imply that the techniques and procedures proposed are definitive or infallible. Indeed, the Manual should be regarded as a working draft to be progressively amended and improved as it is tested in pliot experiments.

It suggests the application of ISCED to the collection of adult education statistics. At the same time it is recognized that ISCED itself is a working draft to be tested and improved.

DEFINITIONS

Adult Education

The term "adult education" is used as synonymous with "out-of-school education" to mean "organized programmes of education provided for the benefit and adapted to the needs of persons not enrolled in regular school, college or university and generally older than fifteen."

Application of the above definition requires a clear statement of what is meant by "education" in the widest sense. "Education" may be defined as "organized communication designed to bring about learning (i.e. lasting) changes in behaviour, information, knowledge, understanding, attitude, skill or capability)". This definition differs slightly from the one to be found in the introduction to ISCED, namely "organized and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all the activities of life." (1)

The ISCED definition excludes "self-directed learning" and "random learning", because these involve no teaching/learning relationship, and would be very difficult to measure statistically. It also excludes "activities which have no direct educational purpose or which are not planned in systematic sequence, for example, recreational activities, sport and tourism with no direct educational purpose; isolated events involving no sustained educational activity, such as one or two public lectures, conferences or meetings; entertainment; information; advertising; other social and corporate activities, such as meetings of clubs and associations or work camps involving no explicit educational aim; activities primarily concerned with the production of goods or services. (2)

The spectrum of "adult education" based upon ISCED thus excludes, at one extreme, activities which are not regarded as "education" (random learning), and activities which do not involve a teaching/learning relationship (self-directed learning); and at the other extreme, it excludes "regular school and university education" (3) as being "non-adult" education.

⁽³⁾ Regular school and university courses may sometimes be attended by 'adults' along with students of 'normal' age. Where these courses are not planned for, or adapted to the needs of adults, they should not be regarded as 'adult education' and the adults enrolled will appear in statistics as students in the regular courses, only differentiated where student age is analysed.



⁽¹⁾ ISCED 1.REV., para. 31

⁽²⁾ ISCED 1.REV., para. 31

Formal and Non-Formal Adult Education

Within this spectrum of adult education, a distinction between "formal" and "non-formal" education is useful both in statistical collection and analysis. This distinction is essentially based upon formal enrolment or registration of students which is present in "formal" education and absent from "non-formal".

"Formal" and "non-formal" adult education generally exist side by side in the same country. Indeed, a single educational agency or establishment may provide both types.

Examples of "formal" and "non-formal" adult education

A Ministry of Agriculture may, for example, organize "formal" courses of training in which farmers are enrolled to follow a prescribed curriculum. The same Ministry may have an extension service which communicates information, knowledge and skill to farmers. This latter would be classified as "nongormal" education because the "students" are not enrolled. The information and advice communicated is not based on an established curriculum, but on the immediate needs and problems of the clients. It is regarded as "education" even if called an "advisory service", because there is a teaching/learning relationship between the providing agency and the beneficiaries. This does not necessarily mean that those who learn or acquire information, knowledge or skills are called or consider themselves "students" - they may be thought of rather as "clients" or "target audiences". Equally, those who impart the information need not be called "teachers", but, for example, "instructors", "extension workers", "demonstrators", "animators" or "community development workers".

Again, an educational broadcasting agency may transmit a course by radio for which students are enrolled and another for which they are not. Both may have similarly planned curricula or programmes, the first would be regarded as "formal", the second as "non-formal".

it should be obvious from these examples that "formal" education is not a synonym for "school and university" education, nor is "non-formal" a synonym for "out-of-school" and "adult education". All school and university education is essentially "formal", in the sense that students are enrolled. Adult education, however, can be "formal" or "non-formal", the distinction is not a sharp one, but needs to be made for statistical purposes. In particular the types of data obtainable differ in some respects; for example, statistics of student enrolment are by definition unobtainable in the "non-formal" field.

This Manual therefore provides guidance in the use of ISCED for the collection and analysis of statistics for both "formal" and "non-formal" adult education and separate procedures for data collection have been devised to cater for the two different areas.



ISCED APPLIED TO ADULT EDUCATION

The ISCED system (1)

For reasons already quoted, ISCED is intended to be used for "out-of-school" or "adult education" as well as for school and university statistics. It will thus be possible, keeping pace with the expansion of adult education and the development of relevant statistics, to present a more complete and integrated picture of the total educational provision in any country and eventually in the world as a whole.

The ISCED document is essentially a dictionary of educational programmes. Each programme has a code number, a short title and a definition. Definitions are provided to assist users of the ISCED system in interpreting the short titles which are inevitably somewhat cryptic.

Programmes have been arranged in order of code number, so it will be helpful for users to understand the togic of the coding system. The code for a programme of studies consists of five digits.

Levels (digit 1)

The first digit identifies the <u>level</u>, which, as the term implies, distinguishes the broad steps of educational progression from the very elementary to the most advanced. Provision has been made for programmes which cannot be defined by level, and some formal adult education as well as all non-formal adult education, will fall into this category. The codes for level are as follows:

- O Education preceding the first level (3)
- I Education at the first level
- 2 Education at the second level: first stage
- 3 Education at the second level: second stage
- 5 Education at the third level: first stage, of the type that leads to an award not equivalent to a first university degree
- 6 Education at the third level: first stage, of the type that leads to a first university degree or equivalent
- 7 Education at the third level: second stage, of the type that leads to a postgraduate university degree or equivalent
- 9 Education not definable by level

These levels are defined in the introduction of the ISCED document, paragraphs 8 - 15.

⁽¹⁾ This section should preferably be studied in conjunction with the document ISCED 1.REV., available from Unesco.

⁽³⁾ Will not be applicable to adult education.

it should be possible to identify the "Levels" of many of the programmes and courses given in formal adult education. This will not be done by reference to the age of students but by reference to the prior educational experience explicitly or implicitly required by the student to follow the programme. In certain cases this will be explicitly required for enrolment; e.g. "In order to follow this course students should have secondary education with (a) or (b) certificates in x and y subjects" (Levels 5 or 6), or "Students should be graduates in x or y" (Level 7). In other cases programmes or courses can be compared in 'difficulty' or actual content to corresponding programmes in the schools or universities. Or again the adult education organizers or teachers can assess what sort of prior educational experience students would be expected to have, even though this is not explicitly stated in the prospectus or required for registration.

Where it proves impossible by any of these means to determine the level of any programme, it will have to be classified at the first digit as category 9 "Education not definable by level".

In non-formal adult education where registration or enrolment does not occur and where "clients", "target audiences" or "recipients" are likely to be more varied in educational background, it will rarely be possible to identify programmes by level and they will be assumed to be category 9. Therefore in the collection and analysis of statistics on non-formal adult education no category for "level" need be used.

Fields (Digits 2 and 3)

Digits 2 and 3 identify the field of study. The meaning of a field code will not vary when preceded by a different code for level. Thus, code 62 will mean "Agriculture, forestry and fishery programmes" at levels 2, 3, 5, 6, 7 and 9. Of course some fields do not exist at every level, e.g. law and jurisprudence programmes are not found at levels 2 or 3 while literacy programmes occur only at level 1. The field codes are listed in paragraph 39 of the introduction to ISCED and definitions for combinations of level and field can be found in the main section of the report. A tabular presentation of ISCED levels, fields and programmes constitutes Annex I to this provisional guide.

It is assumed that all programmes whether formal or non-formal will be identifiable as failing within one of the fields listed. Some may perhaps overlap two or even more, in which case entries should be classified on the basis of the study time (classroom or equivalent) assigned to each field, but if this information is not available, to the field that appears to be the most important.

Programmes (Digits 4 and 5)

Digits 4 and 5 identify programmes for the various levels and fields.

Although it would be possible to classify much of adult education by "Programmes" and this may eventually become the accepted practice, it is suggested that in the initial stages of building up and testing out a system for adult education, only a limited number of programmes be separately identified.



STATISTICAL SERVICE FOR ADULT EDUCATION

National Organization

The responsibility for collecting and compiling statistics on adult education should be vested in a competent central organization. In some countries, where adult education statistics are already collected, an adult education statistical unit may exist.

Where comprehensive statistics have not been collected previously in this field, and the government accepts the necessity of doing so, the first step will be to set up a new unit or to invest responsibility in an existing organization. This may be the central government statistical bureau or department, or the statistical office of the Ministry of Education (though it must be remembered that in many countries adult education does not fall within the responsibility of this, or any other, single Ministry). Other possibilities are non-governmental organizations, national adult education associations, or adult education institutes or departments within the university system.

The functions of the national unit responsible for adult education statistics might appropriately be defined as follows:-

- to study the present Manual and accompanying documents, and in particular ISCED, and to determine how they can be applied within the country;
- 2) to make a survey of agencies providing adult education;
- 3) to plan the collection of data;
- 4), to collate and process the data;
- 5) to arrange publication of the data and to submit it to Unesco and other interested bodies.

in larger countries, and especially those operating under a federal system, many of these functions will have to be decentralized to regional, state or provincial government or other agencies.

Initial Study and Planning

The first task of the national unit will be to make an initial study of this Manual and of ISCED. The aims of such a study might be :-

- to consider their applicability, nationally and locally, to the task of collecting and analysing adult education statistics;
- to consider any changes and amendments required in the proposed procedures, forms and instructions;
- 3) to communicate to the Statistical Office of Unesco any comments, criticisms or proposed amendments to the Manual and/or ISCED.



Where there is already an established system for collecting adult education statistics it will be for the national unit to decide how far this could and should be modified to bring it into line with the Unesco system. Conversely it may be considered desirable to add elements which may be required for national purposes to the Unesco system, particularly to the data collection forms.

Once the applicability of the Manual and of ISCED to the task in hand is accepted, the national unit will need to develop a plan to carry it out. The following five sub-sections suggest the procedures that might be incorporated in such a plan.

A Survey of Adult Education Agencies

The first procedure proposed for the national unit, working where appropriate through authorized regional units, is to carry out a nationwide survey of agencies providing adult education of all kinds. The aims of this survey should be :-

- i) to draw up a complete register, directory or "map" of adult education agencies;
- 2) to identify those agencies which could and should supply relevant data.

Some countries already possess information, for example in reports, directories or yearbooks, which may make a survey unnecessary or at least lighten the task. Where such information is not available or not sufficient, the task of locating agencies may be considerable.

Collection of Data

An analysis of the responses to the survey should indicate the agencies which claim to provide adult education and which are able and willing to supply data. Their addresses will presumably be transferred from the Register to a mailing list.

The next step will be to send to each agency a standard letter requesting them to provide the information required, together with detailed instructions and guidance on how to do this - and the requisite forms.

Use of ISCED in collection and collation of data

It is assumed that copies of ISCED I.REV. will be available to the staff of national statistical units but not to the agencies actually providing adult education, whose staff will be responsible for collecting and submitting the primary statistical data. It is therefore suggested that instructions to these agencies should simply indicate the existence and significance of ISCED and should be so framed as to ensure that the statistical returns are coded as nearly as possible within the ISCED framework. The responsibility for checking and verifying these returns and reconciling them with the ISCED issification will therefore rest with the national statistical panization/unit.

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The assumption has been made that the data available for "non-formal" adult education will differ considerably from that for "formal" education and therefore that the collection and collation of statistics for each of these Neids should be done separately, although ISCED can be used for both. In other words, whilst it may be possible and sometimes desirable to integrate formal adult education data with the school and university statistics and to present them together, the non-formal adult education statistics should be kept separate at least until they can be examined in detail.

Since the value of the national statistics will largely depend upon the accuracy and completeness of the primary data provided by the adult education agencies, detailed instructions and guidance will certainly have to be given to these agencies, together with the standard forms which they are required to complete. Two draft forms (one for formal and one for non-formal education) are attached.

These forms are purely illustrative and do not indicate an intention on Unesco's part to collect such data at present. Investigation and experimentation is now planned to test the feasibility of collecting such data but there are no plans for a general programme of collection. The importance of adult education statistics has been mentioned. It is expected that the need for such information will gain wider recognition and therefore adult education has been used as the example of a statistical programme in this provisional guide. If such a programme is undertaken it will be much more effective if it is planned on a sound uniform basis in all countries from the beginning.

REPUBLIC OF XYZ

CENTRAL STATISTICAL OFFICE

Formal Adult Education Programmes for the Calendar Year 19...

Form completed by : Name of Agency :

ISCED Code		Expected Number of			Number successfully completing programme in 19		
Level	Fleid of Study	Pro- gra- mme	Contact and Independent Study Hours per Student	MF	F.	MF	F
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Principal medium of instruction (check appropriate box)

Total Dire Teaching		Potal other
Full-time	Part-time	Support Staff
1	J	k ·

America Com

Teachers	
Corres.	
T.V.	_
Radio	

REPUBLIC OF XYZ

CENTRAL STATISTICAL OFFICE

Non-Formal Adult Education Programmes for the Calendar Year 19..

Form completed by

Name of Agency

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ISCED Code		Areas cov- ered by pro- gramme sq. km	Total Popu- lation in area by 000s		Estimated Target Audi- ence (clients)		Estimated Audience (clients) Reached or Contacted In 19	
Fleid	Pro- gramme	54. NII	MF	F	MF	F	MF	F
a	b	С	d	е	f	9	h	ı
/								•
		i						·

Total Teach	ning Staff	Total Other
Full-time	Part-time	Support Staff
J	k	1

Principal Methods	Oral
Met/hods	Written
Media	M/V Alds
Used ' · ·	Cinema
(check	Pacio
appropriate	TV
box)	

