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# Introduction to Class J Education

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- 1 This schedule continues the radical revision of Class J Education begun in the second edition of the Bliss Classification. Where appropriate, this class has now been linked systematically with the schedules of other published classes of BC2, and examples of these links are given in section 8 below.
- 2 The summary outline of J, on page xxv, is designed to give a clear view of its basic structure. Outlines of other relevant classes are also given so as to make clear the method by which links have been made. As further revisions to those classes are published, it will be a simple matter to add them to this class. As in previous editions, the schedule is an 'inverted' one, and the summary shows both the general sequence of classes and the basic operational rule for applying the classification. This is the rule that compounds involving more than one class are located under the class which appears lower down in the schedule: for example, Primary school curriculum is located under JM Primary education and not under JK Curriculum. This is because in this scheme, the Educand facet is considered to be more special than the Curriculum facet, and is the preferred location for this compound.
  - 2.1 There are two main orders to be determined: citation order and filing order.
  - 2.11 Citation order is the primary principle and is the order in which characteristics of division are applied. In this case, the literature of education will be divided first by the person taught, and then by the subject taught, and not vice versa. This criterion decides the order of the broad facets of the class and the order of arrays and terms within the facets.
  - 2.12 Filing order is the order of a classified set of documents and of the entries in classified catalogues and bibliographies. It determines, for example, whether Primary education files before or after Secondary education, and before or after English in the curriculum.
  - 2.13 Both these problems are considered in more detail in sections 5 and 6 below.

## 3 Facet structure

The main feature of the schedule is a strict adherence to the principle of facet analysis. The terms of the discipline education are first organised into broad facets. Terms representing concepts which all stand in the same relationship to the main class education are found in the same facet. For instance, all terms which express the concept of a recipient of education are brought together in the same facet; all terms which express the concept of something taught are brought together in another facet; and so on. The main facets are these:

1. Recipients of education (types of educands, pupils, students)
2. What is taught (the curriculum)
3. How it is taught (teaching aids and methods)
4. The agents of teaching (teachers)
5. The context within which teaching and learning take place. This includes the activities and attributes of educands (student life, etc.), and the psychology of the learning and teaching process.
6. Common operations (administration, management, etc.) and their agents (personnel, buildings and equipment, etc.)
7. Viewpoints from which the subject of education is examined (its theory, philosophy, sociology, etc.)
8. Place and time
9. Common subdivisions (e.g. information on the subject of education, form of presentation of this information)

4 Some of the broad facets display a number of subfacets or arrays. For example, the facet Educand is divided by a number of different characteristics: by age, by sex, by vocation, by mental or physical health, etc. Each of these characteristics gives rise to an array of terms. Arrays therefore reflect specific characteristics as distinct from the relatively general characteristics from which the broad facets are derived.

## 5 Citation order

The importance of this has already been mentioned above in 2.11. In essence, it determines what aspects of the subject are kept together, and what aspects therefore have to be scattered. Decisions on citation order should reflect how workers in the subject would prefer their documents to be grouped. This schedule observes what is known as ‘standard citation order’, and is designed to reflect the logic inherent in the subject of education. The primary purpose of education is to educate people in a particular skill, subject or accomplishment. So the ‘end product’ of an educational system may be defined as a *person*, called here an educand, who may be a child or an adult, or an immigrant, itinerant or handicapped, or an individual of any other type. The educand is educated in a *skill*, which may be reading or chemistry or leadership. *How* the subject is taught, and what *agents* or *methods* are used to assist in the process, are essentially contributions to this end. *Place* and *time* are the contexts in which the whole process operates.

5.1 To this logically clear sequence of categories (educand — thing taught — teaching agents and methods) have been added several other categories. These contain concepts drawn from other fields of knowledge that are not specific to education, but they describe the behaviour and attributes of educands as persons (their psychology, personal performance, social life and customs, etc.). All of these, like the first four core facets, may require further qualification by ‘common’ operations and agents such as management, ancillary services, or buildings and

equipment, which provide the administrative and physical framework within which the technical processes of education are conducted.

- 5.2** The schools facet calls for an explanation. This facet can easily be logically distinguished from the facet *Educand* according to facet principles, and is ostensibly a part of the category of Agents of the educational process. In practice, however, the two facets are almost indistinguishable in the literature; primary education and primary school are defined essentially by the implied recipient—children of a certain age. Similarly, the concept of a teacher training college is defined essentially by the recipient—a person training for a certain occupation.
- 5.21** Consequently, this facet is treated here as a dual facet, incorporating in it the twin concepts: *educand*, and school defined by *educand*. Where necessary, the distinction between the two concepts is made automatically, in practical classification, by the process of further qualification. For example, qualification by a concept from psychology clearly implies the notion of *educand*, whereas qualification by a concept from management implies the notion of educational institution.
- 5.22** Insofar as primary, secondary etc. may be considered levels of education, that is, stages of education irrespective of the age of the recipient, there is need to provide separately for the *educand* by age, and to allow the different age groups to be qualified by stage of education. This is done at JPS/JPV. So Primary education of adults, which may occur anywhere where there is a problem of illiteracy, would be JPV M Adults—Primary education. Other categories of *educand per se*, apart from any particular type of school, are also provided, for example at JV.
- 5.3** The overall citation order is therefore the order given in the listing of all facets in section 3 above. *Educand-cum-School* is the primary facet, to be cited first in the classmark for any document in which this concept occurs; what is taught, the *Curriculum*, is the secondary facet, to be cited next where it occurs, and so on.

#### 5.4 Citation order within facets

This is the order of arrays in the same broad facet. The orders here are largely empirical, and are based on consideration of where a compound subject containing more than one array would most helpfully go on the shelves and in a classified subject catalogue. This means that for documents dealing with *educands*, for example, the characteristics which have the most critical effect on their educability will be cited in the classmark before other characteristics. So the teaching of blind refugees would be classed as Blind persons — Refugees, and not as Refugees — Blind persons.

- 5.41** Examination of the schedules will quickly show the citation order preferred. The inverted filing order within facets, explained in detail in the general introduction to BC2, requires that a term from an array which appears *later* in the schedule is cited in a classmark *before* a term which appears *earlier* in the same schedule. So the filing sequence:

|      |                |
|------|----------------|
| JH   | Teachers       |
| JHNW | Women teachers |
| JHQX | Head teachers  |

implies that a document on women head teachers would be classed under head teachers, and if the full classmark were used this would be JHQ XNW.

- 5.42 The same principle applies when forming a compound subject from terms which are not strictly in different arrays but occur in a subsidiary hierarchy special to the facet in which the arrays occur. Citation order is the reverse of filing order. The sequence:

|     |  |
|-----|--|
| JFB | Measurement and testing (of educational performance) |
| JFH | Marks, marking                                       |
| JFM | Objective tests                                      |

implies that a document on marking objective tests would be classed under objective tests, and the classmark would be JFM FH.

## 6 Filing order

Filing order is defined as the order in which the documents in a collection, and entries for them in a classified subject catalogue or bibliography, are filed. Filing order also has two components.

### 6.1 Facet filing order

The schedules follow the principle of inversion. The order in which the facets file is the reverse of the order in which terms from facets are cited when classifying a compound subject. So the primary facet Educand appears last in the order in which the facets are scheduled, the secondary facet Curriculum appears next to last, and so on. This produces a general-to-special order of terms in the schedules, and of documents on the shelves and in classified catalogues. When classifying a compound subject fully, on the other hand, the term cited *first* in the classmark is that which appears *last* in the schedule. This principle of inversion applies throughout the whole of BC2, and it ensures that literature is grouped at the most important or specialised aspects of a subject, where workers in the subject would expect to find it. A document on the curriculum in the primary school is classified under primary school and not under curriculum, because in this scheme the Educand-cum-School facet is scheduled from JL onwards, while the Curriculum facet comes at JK. Curriculum comes first in the filing order of facets, but second in the citation order for building classmarks. In 5.41 above, the general subject of women teachers files before the more special one of women head teachers; if the filing order were not inverted, the special would file before the general:

|        |                     |
|--------|---------------------|
| JH     | Teachers            |
| JHQX   | Head teachers       |
| JHQXNW | Women head teachers |
| JHNW   | Women teachers      |

- 6.11 Similarly, within each facet the arrays are inverted: the array cited *first* in a classmark for a particular document files *last* in the schedule. Special educands file last in the Educand facet but are cited first in a particular classmark.

## 6.2 Orders in array

The classes in an array are mutually exclusive, and cannot normally be compounded together. The class Children 5–11 years old cannot be compounded with the class Children 12–15 years old. In this situation, the filing order in the schedule cannot be determined by the preferred citation order in the normal way, and so has to be determined by other factors. In some cases, there exists an obviously useful principle which can be adopted to produce a sensible systematic arrangement. One array in the Educand facet is arranged by an evolutionary order, that is, educands by age. Where there is no particular systematic principle available, the order is pragmatic.

## 7 Alternative orders

A number of alternative arrangements are provided for, and the notation has been specifically designed to allow alterations to be made in the basic, preferred arrangement. The main ones are listed below in section 7.3.

**7.1** Usually, but not always, the notation is slightly longer when an alternative is adopted.

**7.2** *Decisions should be taken on all alternatives before the scheme is adopted.* The principle of alternatives is meant to apply to complete parts of the schedules; it is not meant to apply to decisions on where to classify any particular document. So, when a library or information service has decided to adopt one alternative arrangement and not the other, the rejected arrangement should be clearly deleted from the whole schedule and never used for classifying. This will simplify the use of the whole scheme.

### 7.3 Alternative citation orders

Curriculum (JK) may be located at JY and cited first, the relative sequence of the other facets remaining unchanged.

Curriculum may be cited first and Teaching methods and aids (JI/JJ) second and third (in which case they would be located at JW/JX).

Buildings and equipment (JCC/JCD) may be cited before functions and located at JCE/JCO.

Personnel (JCP) may be cited before function and located at JCQ T/JCW.

## 8 Application of other disciplines to education

The general problem of disciplines in relation to phenomena is considered in the general introduction to BC2. In two cases here, the ‘pull’ of the other discipline is strong enough to warrant alternatives: Sociology of education (JAK) and Educational psychology (JE) may each be subordinated to their respective disciplines sociology and psychology.

**8.1** In this alternative, Sociology of education appears in Class K as KKV J, to be subdivided by the divisions given here in Class J. Educational psychology appears as IYJ in Class I.

**8.2** Many new subdivisions have been brought into this edition from other classes published later than the 1977 edition, particularly from Classes H, I, K, Q and T. In special education, for example, I, K and Q have been drawn on extensively, in order to gain a better sequence of

terms with improved specialisation. By these means, educands affected by some problem can be distinguished from the problem itself:

|                              |         |                |
|------------------------------|---------|----------------|
| Deprived persons as educands | JVH GP  | (from Class Q) |
| Deprivation                  | JDX CEN | (from Class I) |

Some subjects are formed by compounding classes from other schedules:

|                       |           |
|-----------------------|-----------|
| Society and education | JAK       |
| Community development | JAK MTC P |

This is derived from the following schedule in Class K:

|                                     |        |
|-------------------------------------|--------|
| Social processes: development       | KCP    |
| Local communities                   | KMT    |
| Community development in<br>society | KMT CP |

Some additions have been made from a more recently published class to divisions previously taken from an auxiliary schedule:

|           |  |
|-----------|--|
|           | * Add to JHN letters V/X following KN<br>in Class K Society, e.g.: |
| JHN V     | Sex groups   |
| JHN VKN L | Sex equality   |
| JHN W     | Women  |
| JHN WIP   | Discrimination against women                                       |
| JHN WKV A | Feminism   |
| JHN X     | Men  |

- 8.3** An attempt has been made to schedule sufficient examples from these other classes to meet most subjects occurring in the literature of education, in order to avoid the necessity of frequent recourse to the full schedules of those classes.

## 9 Notation

The notation is fully faceted and synthetic. A compound subject, formed by the coordination of two or more separate and distinct concepts or classes, is given a classmark built up, or synthesised, from the classmarks of its component concepts.

- 9.1** Number (classmark) building is always done in reverse schedule order. Start with the classmark that comes last in the schedule, and add to it the one that comes second last; then add the third last, and so on. This procedure is required by the principle of inversion explained in section 6.1, and notation which allows building backwards is called retroactive.

- 9.2** Any classmark in Class J may be combined with any others that come earlier in the schedule. The rules for building classmarks are described in detail in the general introduction to BC2, but a summary is given here.
- 9.3** When classmarks share only the initial letter J, this should be dropped from classmarks which are added on.

|           |                                    |
|-----------|------------------------------------|
| JC        | Management of schools              |
| JMO       | Primary schools                    |
| JMO C     | Management of primary schools      |
| JH        | Teaching                           |
| JKH       | Reading                            |
| JKH H     | Teaching reading                   |
| JVM X     | Underachievers                     |
| JVM XKH H | Teaching reading to underachievers |

- 9.4** When classmarks begin with the same two initial letters, both can usually be dropped from classmarks which are added on.

|         |  |
|---------|--|
| JDD S   | Student participation                    |
| JDE J   | School councils                          |
| JDE JDS | Student participation in school councils |

- 9.5** At the beginning of some facets, the first subdivision 'A' is reserved so that all preceding classmarks may be added to it.

|         |  |
|---------|--|
| JF      | Educational performance                        |
| JFA     | * Add to JFA letters A/E following J in JA/JE. |
| JEF K   | Cognitive processes                            |
| JFA EFK | Cognitive processes in educational performance |

There is now more notation available for the subdivisions of JF, which can begin at JFB with Measurement and testing.

- 9.6** Whenever 'A' is used like this at the beginning of a facet, number building *within* the facet is different. Although classmarks begin with the same two initial letters, only the initial J can be dropped from classmarks that are added on.

|        |                         |
|--------|-------------------------|
| JFH    | Marking                 |
| JFM    | Objective tests         |
| JFM FH | Marking objective tests |

Warning notes about this are printed at the beginning of JF, JG, JI, JK and JV, and the same procedure is necessary throughout JL.

- 9.7** There are many instructions in Class J for adding notation drawn from other classes or from auxiliary schedules. A classmark built like this with notation from outside Class J, may need to be qualified in turn by other classmarks earlier in Class J or by common subdivisions. *This must be done by using the intercalator 2 to introduce common subdivisions, and the intercalator 3 to introduce earlier notation from Class J.*

|                |  |
|----------------|--|
| 8KH            | West Germany                                   |
| JH             | Teaching                                       |
| JVE ME         | Guest workers (formed from KOU E in Class K)   |
| JVE ME2 8KH    | Guest workers in West Germany                  |
| JVE ME3 H28 KH | Teaching guest workers in West Germany         |
| JDE N          | Boards of studies                              |
| JDF RMS        | Decision making (formed from TRM S in Class T) |
| JDF RMS 3EN    | Decision making by boards of studies           |

Notice that in the second example, after the intercalator 3, the letters JD common to both classmarks have been dropped in accordance with 9.4.

- 9.8** An alphabetical device is required at JR8, JS8 and JSA/JSZ for named institutions in higher education. The first two or three letters of names are unlikely to be sufficient always to distinguish institutions, so a device is recommended similar to Cutter numbers that uses letters of the alphabet. It is best demonstrated by an example.
- 9.9** The letter B in English is likely to be followed only by the five vowels and letters l, r and y. So names beginning Bo... could be given alphabetical devices beginning BN, BO and BP, and names beginning Br... could be given devices beginning BQ, BR and BS. So some British universities at JS could be:

|    |          |
|----|----------|
| BQ | Bradford |
| BR | Bristol  |
| BS | Brunel   |

Each of these could be subdivided indefinitely to accommodate new or smaller institutions and keep them in alphabetical order.

|     |             |
|-----|-------------|
| BRD | Brixham     |
| BRH | Broadstairs |
| BRV | Broughton   |

When you assign the third letter of the device, and if necessary a fourth letter, keep in mind the range of names to be accommodated. For instance, in this example, the subdivisions of BR must accommodate names from Brit... to Briz..., all names beginning Bro..., and names from Brua... to Brum...

Do not end an alphabetical device with letters A or Z. Keep an authority list of devices assigned, and an index of the names for which devices exist.



## 10 Practical classifying

This is discussed fully in the general introduction, and only a summary of the main points as they apply to the literature of education is given here.

**10.1** On first use of the scheme, decide which alternatives are to be used and delete clearly those which are rejected, because they should never be used.

**10.2** Decide which terms collectively constitute a specific summarization of the overall subject of the document. The following are taken almost directly from titles in a bibliography:

1. Hearing-impaired school leavers
2. Displays (as) teaching aids (in) primary schools
3. Audiovisual aids (in) teaching English (to) non-English speaking students
4. Extension training (in) agricultural skills (in) rural schools (in) developing countries
5. Selection (for) universities (in) UK
6. Peripatetic teachers (of the) deaf
7. Remuneration (of) teaching staff (in) vocational education
8. Education (in) hospital schools (for the) mentally handicapped

**10.3** Write the string of terms in citation order according to the rules given here (section 5). This can be done in semi-mechanical fashion by taking first the term lowest in the schedule, then the term next lowest, and so on.

1. Hearing impaired — School leavers
2. Primary schools — Displays
3. Non-English speaking students — English as a foreign language — Audio-visual aids
4. Vocational education in agriculture — Extension training — Rural schools — Developing countries
5. Universities — Selection — UK
6. Deaf persons — Peripatetic teachers
7. Vocational education — Teachers (of) — Salaries
8. Mentally handicapped — Hospital schools (for)

**10.4** Translate this string into notation, observing the basic rules for classmark building (considered above in section 9).

1. JVV DNV V  
This demonstrates simple retroactive classmark building.
2. JMI FS

This demonstrates simple retroactive classmark building.

3. JVG KOK IE

This demonstrates simple retroactive classmark building of relatively high specificity.

4. JTV A4R 3LD F28 BD

This demonstrates modified retroactive classmark building of relatively high specificity. It also demonstrates the special instructions used when a class is divided first like the whole classification and then by further concepts.

5. JS9 3MF P

This demonstrates the use of special instructions.

6. JVW DHP L

This demonstrates the use of common subject subdivisions (L is from TL in Auxiliary Schedule 1A).

7. JTA HBP

This demonstrates the use of ‘A’ as an intercalator (to which are added any preceding letters in Class J).

8. JVK LEM

This demonstrates the use of a set of classmarks reserved for special contexts (JLE M/JLE X are reserved—the first one LEM is taken here to represent Hospital schools).

## 11 The new BC and edition one

This 1990 revision of Class J serves to consolidate and maintain the currency of the second edition of the Bliss Classification in the field of education. The detail of the work for this revision is given in an article in the journal *International Forum on Information and Documentation*.<sup>1</sup>

The 2nd edition of Class J was first published in 1977 and represents a radical revision of the first edition of the Bliss Classification. The nature of the revision is detailed in the 1977 volume and in the general introductory volume to BC2.

## 12 Acknowledgements

The members of the Classification Research Group in their meetings and discussions have contributed to the development of the scheme. Many people have taken an interest in the scheme—more than can be listed—but the encouragement and feedback provided was, and is, essential to the continuing efforts to ensure an adequate classification for education.

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<sup>1</sup>Thoughts on revising a bibliographical classification scheme / D.J. Foskett. *IFID*, 14, 1, Jan 1989, 3–7.