ABSTRACT
        A classification scheme is given for materials
related to occupational and educational opportunities collected by
the Rutgers College Placement Office Library. The scheme assigns a
four digit number to each item. The first digit designates which of
the library's general areas the material covers: general,
occupational, educational, or one of the special areas to be
designated in the future. The second and third digits broadly and
then more specifically define the educational areas dealt with or
assumed as the background for the occupation covered. The fourth
digit indicates geographic location. The classes are listed and
defined, provisions for expansion are indicated, and class numbers
are given for 74 occupations. (PF)

A CLASSIFICATION SYSTEM AND MANUAL FOR PLACEMENT OFFICE LIBRARIES

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Objectives of the Library:
     The library's function is to support the services of the Placement
Office and to give access to the university community to materials on
educational and occupational opportunities.

The collection: What should be collected:
     1. Material related to occupations will be collected and made available
to the university community
     2. Materials related to educational opportunities will be collected.
These materials will usually be restricted to graduate and professional
schools and their programs rather than informal educational opportunities.
New Jersey undergraduate catalogues will also be collected.
     3. Material on financial aid will be collected.
     4. Material related to the general economic situation as it relates
to occupational opportunities shall be collected.
     5. Material related to educational and occupational opportunities
both within and outside of the United States shall be collected.
     6. Material in all formats shall be collected.

The collection: Limitations:
     Materials in areas of knowledge other than those specified above shall
not be collected.

The classification system: General considerations:
     A classification system is a representation of 'the intellectual process
by which our mental concepts or pictures of things are recognised to have
likeness or unity and by this likeness or unity are set in relation to
one another" (Sayers, W. C. B.: A Manual of Classification, London:
Grafton and Co., 1959).
     This classification system has been designed particularly for the collection
at the Rutgers College Placement Office (50 College Avenue, New Brunswick
New Jersey). It is more functionally than theoretically based.
     The system allows for multiple access to the material, both by occupation
and by educational background.
     The literature on occupational opportunities is easily accessible
from the literatuer on educational backgrounds associated with that occupation.
Further, the educational backgrounds for a particular position are accessible
from the occupational literature.
     The system was not designed to be overly technical because it will be
used by non-library personnel, both in the classification of the materials
and in the use of the material by the university community. Ease of use
has thus been the primary consideration.

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THE CLASSIFICATION OF MATERIALS: A MANUAL

Each work in the Placement Office Library will be given a four digit classification number which will identify it in relation to the other materials in the library. Each of the successive digits will further specify the nature of the material. In general, the first column will designate which of the library's general areas the material deals primarily with: general, occupational, educational or one of the special areas to be specified in the future, such as opportunities in education and occupations for minorities. The second and third columns will broadly and then more specifically define the educational areas which the material either directly deals with or assumes as the background for the occupation in question. The fourth column deals with the geographic area which the material applies to. Each column builds on the information provided by those before it. Each of these will be discussed in detail with illustrative examples.

The first column:
    The first column is a general break-down of the material according to the following table:

A	general
B	education-related material
C	occupation-related material
D-Z	special areas to be developed within the collection, to be specified in the future. Examples of this sort are:
	D minorities: education-related material
	E minorties: occupation-related material

General material is defined as those materials which relate to future trends in either education or occupations. Thus The Occupational Outlook Handbook would be classified with the first column symbol 'A', as will a booklet on education in the year 2000. Thus general material of all types would be classified with the intitial colum nsymbol of 'A'. (1)

Education-related material would be those items such as college and graduate school bulletins. These items deal with specific educational materials, either by college or university, or by subject area. Thus both the Rutgers University Bulletin and the Graduate School of Business Bulletin ffom Indiana University would be given an initial classification symbol of 'B'.

Occupation-related material deals with specific occupations. Therefore booklets entitled "Architects" and Nursing" will be assigned an initial classification symbol of 'C'.

The special areas to be developed within the collection are assigned initial classification symbols on the same basis as classes 'B' and 'C'. These areas must be specified and assigned initial symbols as areas are developed.

1. A more general and useful definition of the material which is to be placed in the general catagory is any material related to educational or occupational opportunities not included in the other catagories.

The second and third columns:

The second and third columns are highly inter-related, and shall be discussed jointly. It is suggested that in assigning classification numbers that they be considered together. The following table should be used to determine the symbols to be used in the second and third columns:

A		general
	1	general: general background
	2	other: other areas within main area
	3	general career planning information
	4	general occupational outlooks
B		business
	1	general
	2	other
	3	business administration
	4	finance
	5	accounting
E		education
	1	general
	2	other
	3	elementary
	4	secondary
F		fine arts and art
	1	general
	2	other
	3	art
	4	music
	5	theater
G		social and behavioral sciences
	1	general
	2	other
	3	psychology
	4	sociology
H		health
	1	general
	2	other
	3	medicine
	4	nursing
	5	dentistry
	6	non-professional careers in health
I		information science and library science
	1	general
	2	other
	3	information science
	4	library science
J		law
	1	general
L		language and literature
	1	general
	2	other
	3	modern languages and literature
	4	classical languages and literature

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M		mathematics
	1	general
	2	other
	3	computers
N		natural and life sciences
	1	general
	2	other
	3	biology
P		physical sciences
	1	general
	2	other
	3	chemistry
	4	physics
Q		applied sciences
	1	general
	2	other
	3	engineering
	4	agriculture
S		social work
	1	general
T		theology
	1	general
Y		general undergraduate (includes college bulletins and occupations requiring a general undergraduate background)
	1	general
	3	financial aid
Z		general graduate (includes graduate school bulletins of a general nature, as well as occupations requiring a non-specific graduate degree)
	1	general
	3	financial aid

The second and third columns specify educational areas and subjects. The second column divids the works into broad areas, and the third into more specific sub-areas of the second. As the table indicates, the second column is mnemonic as far as possible. Within each area, the third column specifies subjects within the broad areas. The numbers '1' and '2' in the third column have universal meanings, as the table indicates. A '1' indicates general (the broad area in general) and a '2' indicates other (non-specified area within the broad area). Depending on whether the material being classified is general, education-related, or occupation-related, these symbols mean slightly different things. These differences shall be illuminated by several examples.

A booklet entitled The Rutgers University Graduate School of Library Service Bulletin will be given the first column symbol of 'B' becuase it is clearly education-related. Checking the schedule for the second and third columns, one discovers that the symbol 'I' indicates information on Information science and library science, and so this work, thus far would be given the classification symbols 'BI'. Within the area 'I' are four subdivisions for the third column:

1	general
2	other
3	information science
4	library science

An examination of the work reveals that it is education-related, specifically on the areas of library and information sciences, and so it would be given the classification of 'BI1'.

If the work in question were "Occupational opportunities in Information Science," its first digit would be 'C' becuase it is occupation-related. Its second column symbol, as above, would be 'I' and since it deals specifically with information science, the third column's symbol would be '3'. Thus the three digits would be 'CI3', indicating occupational material on Information Science and Library Science, specifically Information Science.

From the above two examples it can be seen that the meanings of the second and third columns are dependent, to some degree, on the first. It can be seen from this that the occupations can be easily related to the educational backgrounds required. Similarly, a person with an educational background can easily identify occupations for which he or she is qualified. A more complicated example of this will help to illustrate these points.

A booklet "School Media Technologist" would be classified 'C' in the first column because it deals with occupation-related material and 'I2' in the second and third columns..The 'I2' indicates that the background for the occupation of school media technologist is in the field of information science and library science, but specifically with neither information science or library science. Rather there is another area within this broad field known as 'media technology' which is the specific background required. Since 'media technology' is not specified, the thrid column's symbol is '2'.

Similarly, if a school published a bulletin on its program in school media technology, it would be classified 'BI2'. This symbol indicates that the material is education-related, dealing with the general field of information sciecne and library science. and in a field which is not specified on the table: school media technology.

Material on civil service positions or opportunities in the armed forces would be given the initial column symbol of 'A', for the material is specifically about neither education nor occupations (as described in the first column's description). The second and third columns would be used to designate the more specific nature of these materials. If they were general discussions of the armed forces, they would be classified 'AA1'. If, on the other hand, the material discussed the armed forces in general for persons with undergraduate degrees, the classification symbol would be 'AY1'.

Finally, if a particular occupation requires backgrounds in two areas, the classifier must decide which area is most important to that particular occupation. For example, if a booklet entitled 'Teaching College Physics' were to be classified, the classifier would have to decide whether to place the booklet with second column education or with the materials on the physical sciences. The classifier could reason about the problem in the

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following manner: to teach physics in college, a degree in physcis would
be required, but an education degree would not be necessary. Therefore
the material should be placed with the physical sciences. By this decision
the classifier would enable the physics major to discern that he or she
might be qualified to teach physics in college. If the booklet were placed
with the second column education materialsthis discovery would be quitte
improbable. Also, if the material were placed with the second column
education material, it would indicate that a person with a background
in education would be qualified to teach physics in college, which is
completely untrue. Thus the booklet would be classified 'CP4' (occupational
material requiring a background in the physical sciences, specifically
physics).

By using the tables, the classifier, with some degree of understanding
and logic, can classify any work related to educational or occupational
opportunities, or general in nature. To aid the classifier in the making
of these decisions, a classified list of occupations (drawn from the Rutgers
College Placement Office's Occupations File) has been appended to this
manual.

The fourth column:

The fourth column's symbols indicate the geographic area which the
material is concerned with. Education-related materials will be classified
according to geography, for it is assumed that most students seek education-
related material on a geographic basis. Those students that have a particular
school in mind will be merely required to note the school's geographic
area in order to find the needed material. Occupation-related material
can also be classified in this way in some cases, though most occupations
are not limited geographically. In the cases in which the geographic
area is not relevant (the positions is not limited to a certain geographic
area) this column will indicate the fact. The following table indicates the
symbols which are to be used in assigning the fourth column symbols:

0	general: geography not relevant
1	Northeast United States
	Conneticut, Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, Washington D.C. and West Virginia.
2	Southeast United States
	Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina and Tennessee.
3	North Central United States
	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dekota, South Dekota and Wisconsin.
4	South Central United States
	Arkansas, Louisiana, Mississippi, Oklahoma and Texas.
5	Northwest United States

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	Idaho, Montana, Oregon, Washington (state) and Wyoming.
6	Southwest United States Arizona, California, Colorado, Nevada, New Mexico and Utah.
7	Alaska and Hawaii
8.	Canada, Centarl America and South America
9	Europe, Asia, Africa and Australia

The use of this table will be illustrated. by a few examples.

The Graduate School Bulletin of Rutgers University would be classified 'BZ11'. This classification number indicates that the work is education-related (B), general graduate (Z), general in nature (1), and that the school is located in the Northeast portion of the United States. Similarly, Rutgers University's bulletin on the programs of the Graduate School of Library Service would be classified 'BI11' (education-related, on information science and library science, general in nature, located in the Northeast United States).

Material on engineering jobs on the Alaska pipeline would be classified 'CQ37'. This classification number indicates that the work is occupation-related requiring a background in the applied sciences, specifically engineering, and the position is geographically limited to Alaska or Hawaii.

A work on occupational outlooks in Europe would be classified "AA49'. This classification number indicates that the material is general in nature, of a general nature dealing with occupational outlooks in Europe, Asia, Africa or Australia.

A work on non-professional occupations in health-related fields would be classified 'CH60'. This classification number indicates that the work is occupation-related, in the health field, dealing with non-professional occupations and having no geographic restrictions.

Thus the meaning and use of the symbols of the fourth column are clear. The classifier is reminded that his column, as all others, must be filled with one of the symbols specified. The the geographic region is not relevant to the material in question, this must be indicated by the placing of the symbol '0' in the fourth column.

Concluding remarks:

The classification system herein described facilitates making the connection between educational backgrounds and occupations. This is accomplished by using the same symbols to represent the educational background required and the occupation requiring that particular educational background. The system assumes that a person who is qualified for a specific position is also qualified for a more general position requiring the same general subject background. Thus the user should be advised to check for occupations both in his or her specific field and the general classification in that broad subject area.

The system groups similar material together. All occupation-related material is grouped under the initial symbol 'C' and all education-related material is grouped under the initial symbol 'B' as well as generalalities

all grouped under the initial symbol 'A'. Each column of a work's classification number further limits the scope of the work; thus the entire number characterizes each work in a specific manner.

The system is limited only by the ability of the individual actually performing the classification. This individual will be required to discern the educational background required for each occupation. To facilitate this classification, I have appended a list of classified occupations (drawn from the Rutgers College Placement Office's Occupation File). A file or chart containing a list of all the occupations and/or educational backgrounds and their classification symbols should be compiled to facilitate use by students seeking information as well as for the individual performing the classifying to refer to. Also, to help the university community who will use this library's collection, a map of the United States should be posted, indicating the geographic divisions used in this system (column 4).

Expansion of the system:

This system of classification can be expanded to keep pace with the library's expanding roles. The following is a list of expansions which are recommended if necessary in the future:

a. The first column's expansion will enable the library to open numerous special collections areas, such as material on minority opportunities in education and occupations. Since this is the first column, it insures that all material within the established special section will be grouped together.

b. If the special collections areas grow very numerous, a letter or number can be added to the beginning of all the classification numbers, thus allowing multiple additional special areas. I must caution, though, that an extreme fragmentation of the materials into special area is not advisable, and each new special area should be decided upon with special care.

c. The second column can be expanded by using the letters which have not already been assigned a meaning. This expansion should also be considered with great care, and should only be used in the event of a surge in interest in a particular field which is felt not to be adequately covered in the existing system. If other broad areas are deemed necessary, it is cautioned that the expander maintain the third column's designation for general ('1') and other ('2'), after assigning subdivisions appropriate to the broad field.

d. The third column can be expanded to further subdivid any of the broad areas simply by adding successive numbers and assigning appropriate division sub-headings.

e. The fourth column could be expanded by adding a number or letter to further specify the geographical area.

Thus it can be seen that this classification system allows numerous expansions. These expansions should be used only if their use is made necessary by the library's users and the uses of the collection, or by the materials the library acquires.

Summary Tables

Column 1:
A   General
B   education-related material
C   occupation-related material
D-Z special areas to be developed within the collection, to be specified
    in the future. An example of this would be:
            D   minorities: education-related material
            E   minorities: occupation-related material

Columns 2 and 3:
A   general
    1   general: general background
    2   other: other areas within main area
    3   general career planning information
    4   general occupational outlooks
B   Business
    1   general
    2   other
    3   business administration
    4   finance
    5   accounting
E   education
    1   general
    2   other
    3   elementary
    4   secondary
F   fine arts and art
    1   general
    2   other
    3   art
    4   music
    5   theater
G   Social and behavioral sciences
    1   general
    2   other
    3   psychology
    4   sociology
H   health
    1   general
    2   other
    3   medicine
    4   nursing
    5   dentistry
    6   non-professional careers in health
I   information science and library science
    1   general
    2   other
    3   information science
    4   library science

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J		law
	1	general
L		languages and literature
	1	general
	2	other
	3	modern languages and literature
	4	classical. languages and literature
M		mathematics
	1	general
	2	other
	3	computers
N		natural and life sciences
	1	general
	2	other
	3	biology
P		physical sciences
	1	general
	2	other
	3	chemistry
	4	physics
Q		applied sciences
	1	general
	2	other
	3	engineering
	4	agriculture
S		social work
	1	gneral
T		theology
	1	general
Y		general undergraduate. Includes college bulletins and occupations requiring a general undergraduate background.
	1	general
	3	financial aid
Z		general graduate. Includes graduate school bulletins of a general nature, as well as occupations requiring a non-specific graduate degree.
	1	general
	3	financial aid

Column 4:

0	general: geography not relevant
1	Northeast United States
	Conneticut, Delaware, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, Washington D.C. and West Virginia
2	Southeast United States
	Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina and Tennessee
3	North Central United States
	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota and Wisconsin

4   South Central United States
                    Arkansas, Louisiana, Mississippi, Oklahoma and Texas
5   Northwest United States
                    Idaho, Montana, Oregon, Washington (state) and Wyoming
6   Southwest United States
                    Arizona, California, Colorado, Nevada, New Mexico and
                    Utah
7   Alaska and Hawaii
8   Canada, Central America and South America
9   Europe, Asia, Africa and Australia

A Classified List of Occupations

accounting	B5	government: civil	
actuary	B2	service	A1
advertising	A2	health	H1
agriculture	Q4	history	G2
anthropology	G2	home economics	A1
archeology	G2	hospital administration	
art	F3		B3
astronomy	N2	inhalation therapist	H6
athletics	A1	insurance	B2
atomic energy	N2	interior decorating	F2
aviation	A1	ichthyology	Q2
biology	N3	journalism	A1
biochemistry	N3	landscape architecture	
botany	N2		Q2
business	B1	lawyer	J1
cartography	F2	librarian	I1
cartooning	F2	mathematics	M1
chemistry	F3	medical technologist	H6
chiropratics	H6	mental health	H6 or G3
college: non-teaching		meteorology	N2
positions	A1	microbiology	N3
computers	M3	museum/art galleries	A1
conservation	Q2	music	F4
criminal justice	J1	nursing	H4
dentistry	H5	oceanography	N2
ecology	N2	pharmacy	H2
economics	G2	physicians	H3
education	E1	podiatry	H2
employment counsilor	G2	photography	F2
engineering	Q3	physics	F4
fashion design	F2	psychology	G3
finance	B4	public health	H1
food services	A1	radio and television	A1
foreign languages		real estate	A2
(including		recreation workers	A1
translators)	L1	rehabilitation	H6
fund raisers	A1	religious vocations	T1
genetics	N2	salesmanship	A1
geology	N2	secretarial	A1
geophysics	P4	urban planners	G2

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