Some Effects of the 'Science of Science' on the Education of the Library User in the D.D.R.

Dieter Schmidmaier

Mining Academy Freiberg
SOME EFFECTS OF THE 'SCIENCE OF 'SCIENCE' ON
THE EDUCATION OF THE LIBRARY USER IN THE D. D. R.

by

DIETER SCHMIDMAIER.

1. The Science of Science and some of its problems.

The objective character of the laws governing the development of science and under them the increasing application of science to direct productivity together with the dialectic of specialisation and integration in science have led to the creation of a 'science of science' (1). According to Dobrov (2) this investigates the functioning of scientific systems and seeks to strengthen their scientific and research potential and to increase the effectiveness of scientific processes by application of organising methods. The groups of sciences investigated by our subject 'science' (i.e. science of science) can be classified into 4 groups:-

1. Disciplines which treat science from the philosophical angle as an ideological and unifying relationship between the different subjects covered by the science of science (philosophical theory of science).

2. Disciplines whose subject matter relates to the main structure, the logical arrangement and the language of a science and to the methods used for gaining knowledge (scientific logic or methodology).

3. Disciplines which deal with science from a social angle (scientific sociology or organisation) such as economics, planning, management, prognosis, sociology and the history of science.

4. Disciplines which cover the popularisation and educational dissemination of scientific results (teaching of science).

The first three groups were indicated as far back as 1936 by the Polish Scientists Ossowska and Ossowski (3) who, together with Kotarbinski (4), were the first to use the term 'science of science'. The fourth group up to now has received little, if any, mention except as a supplementary possibility. The part of scientific education which covers the contribution of library science to the study, research and practice of the science of science can be briefly designated as 'education for science by librarians'.

The scientific and research potential as defined by Dobrov includes the personal and material resources which influence the ability of a scientific system to solve its problems of scientific and technical development. Among the parameters which delineate this potential (5) are:

- The number of scientists, their creativity and their collective organisation

- The number of scientific institutions and their equipment.
The state of scientific terminology.

The situation with regard to scientific information.

The last named is increasingly the concern of the science of science, library science and 'informatics'. The supply of literature emphasises the main problem which is the information explosion (arising as a result of the dialectic of specialisation and integration of science) and to control this one must undertake an evaluation of scientifically valuable items of information either by traditional or (partly) automated methods. Maintenance of information can only continue when two conditions are satisfied, viz:

1. The information source is well organised with rational procedures and good publicity.

2. The scientist is ready to accept information, and will take the trouble to make his knowledge of scientific working methods available to the information services.

An important condition for effective information activity is knowledge of the interests and working methods of the scientist (the beneficiary of the information process), and a good relationship between scientist and information is the key to fruitful work in this field. An example should make this problem clearer. It has been established during the last decade that the number of joint publications has risen sharply. At the beginning of the twentieth century 82% of all papers were by a single author, whereas now this figure has fallen to 33%. The proportion of publications by 2 authors has risen from 16% to 43%, those by three authors from 2% to 15%, and those by more than 3 authors from 0.5% to 9%. This regular pattern in the development of science is due to teamwork and to the change from individual to collective methods of research. Information methods have also changed and a different type of scholar has developed with new interests and methods of organisation. For collective work it is also essential to understand the best methods of scientific work and to introduce appropriate division and co-ordination of labour. The continued further education of scholars, according to Kleczkowski (6) means the following:

- Current awareness of advances in their own disciplines.
- Being conversant with new methods of working and mastering them both in practice and at the writing desk.
- Mastering and perfecting methods for presenting and evaluating the results of research.
- Being conversant with fringe subjects, an essential for the extension and application of research.
- Knowledge of foreign languages.

However, what is the position with the time-budget of scientists? What part does knowledge of methods and techniques in scientific work play with regard to this budget? Is rationalisation at all possible and does the scientist see this? These are questions with which library sociology and the sociology of 'informatics' must concern themselves. One can only attempt a preliminary answer to these points.

The time-budget of the scientist is an important criterion of scientific and research potential. Recent methods of measuring time-budgets have made it
possible to obtain comparable statistics about the economic use of people's work
time and free time. The work (7) was based on the assumption that the working
time of scientists represents an important part of the national assets and that
correct utilisation leads to faster application of research results to production.
The results show that there are considerable reserves available which until
recently, were not thought to be very important. In this category comes time
occupied by the proliferation of meetings, the execution of numerous non-scientific
duties and the frequent failure of communication between the older (experienced)
generation and the creative activities of younger people. Urgently necessary
also is a warning of dangers in the over-organisation of scientific work through
written recommendations for the respective work places and through instruction-
and hand-books. Today the loss of time through administrative work hinders the
productive and effective work of scientists. Reserves also lie in knowledge of
the methodology and technique of scientific work especially in early acquisition
and evaluation of information since this determines the starting level of all
administrative, economic and scientific-technical decisions. There must be
precise analyses at the highest levels, a thorough study of the literature, and
information exchange by personal contact. For all this it is essential to have
knowledge of the methods of library and information science and of the development
of information services by data processing. These can influence the usefulness
of research and development since ignorance of available information or delayed
application of new knowledge to material production can hinder the competitiveness
of products in the world market.

2. The library and its educational function.

In the socialist state, library and information centres play an important role,
serving as headquarters for preparatory work on decisions over social processes.
Only when this is fully implemented can one profit from the three sociological
functions of libraries - scientific, cultural and educational. The socialist
library develops, as will be shown later, together with other centres for the
dissemination of information, on the basis of an officially designated educational
theory of the teaching of science by librarians which fulfills the requirements
of the scientific - technical revolution. What progress can be shown in this
scientific education? The conclusions of a dissertation recently prepared by the
author (8) are as follows:-

1. In the early (German) Enlightenment (1690-1760) there developed in Germany,
- greatly influenced by libraries - one of the requirements for building a
community corresponding to the science of science. This was eclectically
organised and was completely under the influence of Pietism. The librarian
exercised his educational function as the high point of library work and taught
about bibliography and libraries as a single subject, often quite separately from
the archaic approach to book title scholarship. The Founder of this movement was
the librarian of Jena University (Burcard Gotthelf Struve) and subsequently
important contributions were made by Peter Lambeck as librarian of the Gymnasium
Johanneum at Hamburg and Daniel Georg Morhof, the University librarian at Kiel.
The University Libraries in Kiel, Jena and Gottingen were the centres of this
first phase of scientific education in libraries.

2. In the High German Enlightenment (1760-1830) the Gottingen school of
German lexicography and subject bibliography developed and reinforced an increase
in source research. The science of science, strongly influenced by rationalism
and the ideas of Immanuel Kant, supplanted theology as the leading branch of
study. The selection of popular writings on the science of science grew
considerably under the strong influence of librarians and although the approach
was still scholastic and eclectic, yet it sustained the mental and economic
development of the middle classes. University Libraries in Gottingen, Erlangen,
Ingolstadt and Greifswald played an important part in disseminating both biblio­
graphic and scientific knowledge to students. The most important contribution
however, came from the aristocratic academies for court education at Braunschweig
and Vienna through the prophetic writings and lectures of the librarians Johann
Joachim Eschenburg and Johann Michael Denis.

3. After 1830 there was stagnation in the bourgeois science of science.
Librarians sought a way out by making their profession independent and emphasising
the organisational-technical and historical side of their work.

The librarians' chief services lay in the founding (1650-1690) and influencing
(1690-1760) of the science of science as their contribution to the education of
the younger generation as well as in the creation of classification theory and
practice. This pedagogic tradition must be taken further (thus fulfilling the
duty of a socialist state to enrich the community's classical inheritance) since
the creation of a sophisticated social system should afford every citizen a high
level of liberal and special education. The law of the dialectic of specialisation
and integration in science must also find expression in education. Our law passed
in 1965 unifying the socialist education system (9) states that a general education
should include mathematics, science, technology, civics, social sciences, ethics
and languages together with aesthetic and physical education and training. The
general education lays the foundation for later specialisation. Basic features
of the education system are:

- The establishment of pre-school education.
- The 10-class, general, polytechnic, modern (i.e. non-classical secondary)
schools.
- The establishment of vocational training.
- The establishment of education leading to the Universities.
- Engineering and technical schools.
- Universities and Polytechnics.
- The establishment of in-service training and further training.

In our law it is clearly set out that a good education must include knowledge of
the methods and technology of scientific work. General educational, and scient­
ific libraries and information centres must promote education and scientific work
by the preparation, publicising and dissemination of the literature.

Documents concerning university education and based on the legal requirements
have been published and discussed (10). Considerable attention has also been
paid to the methodology and technique of scientific work. In basic study this
is taught "to encourage the acquisition of rational methods of independent
scientific work"; in technical study this includes 'instruction in the methodology
of the scientific work of the subject", while in special study and research the
student is trained to develop independent creative activity and to become part of
a highly qualified cadre. Through all forms of study there runs the scarlet
thread of preparatory training in the science of science, to facilitate later
work in research, teaching and applied science.

The conditions laid down in the new law will also make it necessary for librarians
in all kinds of libraries to increase the quantity and quality of education which
they provide. Translation of these requirements into practice is to be brought
about through an ordinance from the cabinet council (11), regulating the establishment and working methods of libraries (in a way similar to that already in force for education). This lays down the scientific, cultural and educational aims of scientific and technical libraries on the one hand, and of State general educational libraries on the other. So, at present, a library system is developing which is in a position to provide people, at specified points in their education, with knowledge of the methods of scientific work, of the results of work done in libraries and of the knowledge stored in information centres, archives and museums.

General educational libraries can point to considerable success. Children's libraries, together with the schools run introductory courses for certain age groups. Numerous primers have been written on this subject and have been reviewed in the literature (12). In 1969 the Leipzig Bibliographic Institute published 'Die Bibliothek und Du' (The library and you), the first popular scientific introduction to the library scene in the DDR which is useful to both teachers and pupils (13). The Central Institute for Information and Documentation has run several courses for teachers who have to provide "user training" in technical colleges and universities and must introduce the students to the methods used for information and documentation through lectures and practical work. Numerous results of this work have been published (14).

Bearing in mind our legal requirements, publishers, booksellers, library scientists, information specialists, and archivists, have all got educational problems to solve. It is especially important to deal with the following points:

1. Introduction of the methodology and techniques of scientific work as a branch of study at all stages of the educational system according to a centralised teaching scheme.

2. Creation of a comprehensive general education and documentation.

3. Publication of suitable textbooks, handbooks, and introductory works suitable for all stages of the educational system.

The following science teaching problems must be solved by librarians in connection with documentation:

1. Preparation of a forecast of science teaching by librarians and preparation of an outline working plan for this activity in all kinds of library.

2. Checking the outline plan (through obligatory discussion with Ministers and agents for training and further education) and laying the foundations of modern coordinated forward-looking science instruction by providing training lectures for the required teaching staff.

3. Publication of textbooks and manuals graded in difficulty according to the stage of education reached by the prospective users.

4. Review of modern techniques of teaching and learning, office management, electronic data processing, newly developed information sources and data carriers and of modern development in cataloguing theory and practice.

Librarians make use of the following means of preliminary instruction.

1. Verbal.
   - During the first visit & registration of a reader.
- For supplying information in all departments.
- For introducing library and bibliographic procedures and teaching the methodology and technique of scientific work.
- For assisting with other aspects of documentation.
- For broadcast talks.

2. Written.
- Instruction sheets for users of equipment.
- Guides to library use and libraries, and library address books.
- Independent and co-operative publications on library topics especially guides to individual libraries, reference books and use of the catalogue.

- Exhibitions on special subjects and for anniversaries.
- Lectures on Film or Television.

Armed with these tools library science can help in the rationalisation of scientific work, improvement of the processes of teaching and learning, and attainment of the highest world standards in certain branches of the political economy.

The usefulness of scientific work, earlier described as the scientific and research potential, is also affected by knowledge of the literature. This already shows itself in:

- An increased number of users.
- Improvement in both quality and quantity of library loans.
- Faster and more efficient tracing of stored information.
- Decrease in misdirected information.
- The tendency to individual card indexes.
- Centralised preparation of source, citation and literature indexes.
- Improved teaching, learning and reading techniques.
- Faster completion of technical and organisation work.

3. Pedagogic problems of technological university and university libraries.

These libraries form a considerable part of the library system in the DDR, and are responsible for the comprehensive collection, development and availability of the scientific literature for those disciplines studied at the universities. A central technological university library undertakes the supply of literature to students for basic and professional studies through graduated textbooks and by supplying standard works and textbooks in the reading room, and is also responsible for obtaining journals and loans for inter-disciplinary studies. It directs and co-ordinates library work throughout the whole university and forms a single organisational entity with departmental branch libraries. In the area of scient-
If information it is responsible for instruction, control coordination, the use of modern techniques and qualifications, and the issue of central information material. (In the departments there are information centres which deal with specific subject information). The branch libraries stock literature of specific interest to the departments, and resemble professional subject libraries in their contents, functions and use. They work closely with the information centres.

The educational work of the technological university library must be dovetailed with the organisational structure of the university. There follows a brief report of the scheme which is now being developed in the library of the Bergakademie Freiburg (DDR) and which will be in use, at the latest, at the beginning of the academic year of 1971. The objective is to provide all students of the Bergakademie with a solid foundation in the methodology and technique of scientific work so that their studies are scientifically productive and they emerge capable of making a maximum economic contribution to teaching, research and practice. The scheme makes use of Soviet, Hungarian, Polish, British, American, and Swedish experience and continues the work of German librarians in the years gone by. It makes full use of the knowledge gained by colleagues in technical and university libraries of the DDR while carrying out the reorganisation of the technological universities (Dresden, Weimar and Berlin). Now to the Model itself. It can be divided into 4 phases.

First Phase

Introduction to general methodology and technique of scientific work by library staff as agreed with the Bergakademie directorate for education and training. This is compulsory for students on basic courses and instruction is given in a reading room of the technological university library. Here the newly enrolled student is made familiar with the scientific working methods which he will meet during his first year of study. After an introduction to the basic concepts of the science of science the course covers classification methods and systems, suggestions for the organisation of work, reprography, the different methods of acquiring knowledge by word of mouth (through lectures or from colleagues), printed sources (literature and centres providing documentation), with special reference to the use of scientific libraries and general bibliographies, reading of books and evaluation of their contents. Length of this course 12-15 hrs.


Second Phase

Introduction to the specific subject methodology and technique of scientific work by staff from the departmental branch libraries and the head of the information section for the department in conjunction with the central library and the subject teaching staff. This is compulsory for students doing a special subject and is given in the seminar rooms of the departments. In this phase students need knowledge of the following:- Working methods of the special subject (chemistry, biology etc); printed sources such as information centres, archives and subject bibliographies, documentation of journals and special literature and storage for retrieval (information); planning and execution of scientific work (reports, note taking, examination work). Length of course: 10-15 hrs.

A pamphlet on the use of information which will be issued in 1970. Individual teaching material.
Third Phase

Introduction to special methods and techniques of scientific work by staff of the University library and the head of the department information centre in conjunction with and under supervision by the teaching staff. This is compulsory for students on specialised or research courses and is given in the central library or in the department. In this phase the student needs specialised knowledge of the working methods of his subject area, must be able to provide his own information and documentation (e.g. to prepare literature reviews) and must know exactly how to prepare a dissertation (from planning via working up to final preparation for printing). Length of course: 8-12 hrs.

Literature: one's own material.

Fourth Phase

Instruction in new methods and techniques in scientific work by the staff of the Technological University library in conjunction with the Directorate for further Education. The course is intended to take the form of colloquia for graduates of the University, but experience has yet to be gained about this phase.

In order to carry through the carefully worked out teaching plan this scheme requires the training (especially in information retrieval) of a fairly large staff, the issuing of instructional material and the utilisation of new methods of teaching and learning combined with the use of modern techniques in the library. It also needs continuous consultation with colleagues in general educational libraries and the information/documentation both to study the whole system of literature provision and to make use of it. The library staff of a technological university are only a part of the overall library system and have the duty to apply its specific resources to educational and scientific purposes.
**SUMMARY**

(1) Scheme for a system of general education in the science of science, and methods and techniques of scientific work.

<table>
<thead>
<tr>
<th>Main Content</th>
<th>Educational Bodies</th>
<th>Participants</th>
<th>Form of Instruction</th>
<th>Instructors</th>
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<td>3</td>
<td>Basic knowledge of the literature.</td>
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<tr>
<td>5</td>
<td>Highly specialised development of 4.</td>
<td>Technical Insts. Technolog. Unv. Training of research teams.</td>
<td>Students on special courses or doing research. Leaders of Research teams.</td>
<td>as 1-3 as 1-3</td>
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<tr>
<th>Main Content</th>
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<th>Instructors</th>
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<td>6 Information retrieval and extension of items 1-3.</td>
<td>Adult education classes.</td>
<td>Practising workers.</td>
<td>as 1-3.</td>
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<td></td>
<td>Univ. extension courses.</td>
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<td>Business school.</td>
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<td>Further education of teams, assocs., and organisations.</td>
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(2) The results of the General Education in the science of science, methodology and technique of scientific work and in the use of the literature.

<table>
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<tr>
<th>Students leaving secondary school and vocational school.</th>
<th>Students graduating from technical institutes and universities and practical research teams.</th>
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<tr>
<td>Awareness—</td>
<td></td>
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<tr>
<td>1. Of the important part played by use of the literature and by methodology and technique in scientific work.</td>
<td>1. Of the importance of the science of science, methodology and technique in scientific work and the use of the literature for furthering the teaching, research and practice of science and especially for the forecasting, planning management and execution of scientific, technical and economic problems.</td>
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<td>2. Of the way these can benefit the learning process.</td>
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Basic Knowledge of—

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<tr>
<th>Students leaving secondary school and vocational school.</th>
<th>Students graduating from technical institutes and universities and practical research teams.</th>
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<tr>
<td>1. The general methodology and technique of scientific work such as the collection, classification and storage of material, report writing, technical aids for rationalisation of simple processes.</td>
<td>1. The organisation of science technology and economics in their historical context, and as reflected in the present day life of the DDR.</td>
</tr>
<tr>
<td>2. Libraries, the equipment for information/documentation and of bibliographic aids.</td>
<td>2. The historical development of each student's subject field.</td>
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<td></td>
<td>3. The specialised methodology, and technique of the individual subject areas including the organisation and methods of the special subject literature.</td>
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<td>Specialist Knowledge of-</td>
<td>Specialist and Tech. Knowledge of-</td>
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<tr>
<td>1. Reading and evaluation of belles-lettres and subject literature.</td>
<td>1. General methodology and technique of scientific work such as the collection, classification and storage of material; the use of technical aids to rationalise important processes; methods of teaching, learning and reading.</td>
</tr>
<tr>
<td>2. General educational value of libraries in the DDR.</td>
<td>2. The most important information sources for general and specialised use.</td>
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**Ability-**

1. To apply knowledge of the methodology and technique of scientific work.
2. To use general, educational, and general scientific libraries.
3. To collect information on sample subjects, to arrange it, profit from it and in some cases to evaluate it.
4. To make simple card indexes.
5. To summarise the important parts of an event or lecture.

1. To apply knowledge of the science of science and the methodology and technique of scientific work to one's own work.
2. To make use of bookshops, technical libraries, information/documentation, and archives.
3. To work independently in one's subject area and to give lectures or read papers to others.
4. To collect information for one's work, to evaluate it, arrange it and profit from it; also to use title abbreviations according to the rules.
5. To construct card indexes.
6. To prepare a scientific project methodologically and technically, to carry it through and write it up.
1. In connection with information sources, books, newspapers and journals.
2. In the use of library catalogues and card indexes.
3. In connection with literature for scientific work.

1. In reliable handling of all information sources.
2. In the use of catalogues and card indexes in libraries and information centres and in some cases in the use of archival material.
3. Reliable handling of literature for scientific work.

General Teaching and Study Plan of the methodology and technique of scientific work which also contains details of the librarian's contribution:

- Concepts of the science of science.
  0.1 Laws of the development of science.
  0.2 Philosophical theory of science.
  0.3 Logic of science.
  0.4 Sociology of science.
  0.5 Pedagogy of science.

1. Fundamentals.
  1.1 Pedagogy.
  1.2 Psychology.
  1.3 Medicine.
    1.31 Ethics of work (practice).
    1.32 Health and hygiene.
  1.4 Linguistics.
    1.41 Composition, Rhetoric.
    1.42 Terminology.
  1.5 Technique.
    1.51 Classification theory.
    1.52 Classification methods and systems.
      1.521 Series formation (alphabetical, numerical, temporal).
      1.522 Group formation (subject, geographical).
1.523 Individual systems (Decimal classification, Soviet classification, important library catalogues, book trade systems).
1.524 Subject headings, descriptors, thesauri.
1.54 Card indexes (Format, colours, paper, arrangement guides, storage).
1.55 Punched Cards (hand-, edge-, peekaboo).
1.56 Suggestions and apparatus for saving work (arrangement of work place and work rooms, typewriters and type, aids to arrangement and order).
1.57 Reprography (duplicating, gelatine and alcohol reprint processes, blueprints, microfilms, photocopies, physical copying methods).
1.58 Standardisation.

2. Verbal communication of knowledge.

2.1 Individual forms.
2.11 Lectures.
2.12 Talks, reports, conversation.
2.13 Colloquium.
2.14 Seminar.
2.15 Other.

2.2 Collaboration.
2.21 Joint authorship.
2.22 Discussion.
2.23 Learning.
2.24 Preparation for examination.

3. Communication and acquisition of written knowledge.

3.1 Literature and clearing centres for documentation.
3.11 Sources.
3.12 Information sources and the value of information.
3.121 Storage of knowledge.
3.122 Books.
3.123 University publications.
3.124 Periodicals.
3.125 Manuscripts.

3.126 Other literature (patents, standards, trade literature, conference proceedings, research reports, audiovisual material).

3.13 Cataloguing.

3.14 Bibliographies. Reference works.

3.141 Bibliography of bibliographies.

3.142 International general and special bibliographies.

3.143 Library catalogues.

3.144 National bibliographies.

3.145 Indexes of university publications.

3.146 Catalogues and bibliographies of periodicals.

3.147 Encyclopedias. Reference works. Bibliographies.

3.148 Subject bibliographies and reference works.

3.149 Other.

3.15 Book trade.

3.151 Definition. History. Types.

3.152 Prospectuses and forthcoming publications.

3.153 Methods of work.

3.154 Role of the antiquarian bookseller in scientific work.

3.16 Libraries.

3.161 Definition. History. Types.

3.162 Catalogues, Cataloguing.

3.163 Library use (registration, lending ticket, local loans, reading room, long distance loans).

3.164 Literature routines.

3.165 Practical exercises.

3.17 Information.

3.171 Definition. History. Types.

3.172 Fundamentals of library and office techniques.

3.173 Methods of documentation and of processing information (outlets for information activity, planning of subject information, data processing, exercises).
3.174 Utilisation.
3.18 Archives.
3.182 Archival material.
3.183 Methods of working.
3.184 Utilisation.
3.2 Reading.
3.21 Ways of utilising the literature.
3.211 Different kinds of reading (scanning, studying, comparative reading, corroborative reading).
3.212 Systems of marking symbols.
3.213 Literary evaluation of books.
3.2131 Plot or scheme.
3.2132 Thesis.
3.2133 Excerpts.
3.2134 Conspectus.
3.214 Utilisation of derivative publications (descriptive, reference and analytical).
3.215 Literature reference work.
3.22 Specialised reading knowledge.
3.3 Layout and execution of scientific work.
3.31 Method of procedure.
3.311 Written & verbal reports.
3.312 Verification work. Diploma work.
3.32 Note taking.
3.321 Arrangement.
3.322 Working up of notes (introduction, literature review, research, methods, results, discussion, summary, comments, bibliography).
3.323 Index.
3.33 Printing.
3.331 Printing technique.

3.332 Preparation for printing.

3.333 Proofs.

3.334 Publishing.

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DISCUSSION

R.A. WALL: Will Dr. Schmidmaier tell us what practical instruction, i.e. practice in information retrieval, is given in the early years?

D. SCHMIDMAIER: Four hours general introduction are given in the first year. Later the students receive instruction in specific subject methodology by the library staff working in collaboration with the departmental teaching staff. Our main difficulty is finding teachers for the aspects we wish to cover.

L.J. HARAVU: Are students undertaking the courses examined on their work, and if so what part of it relates to knowledge of the use of libraries, exploitation of information sources etc?

D. SCHMIDMAIER: There is no formal examination. However, the course is compulsory and exercises set as part of the course are also compulsory and credits given for them. The objective is to develop subject specialists who will ultimately function both as researchers and information specialists in their day to day work.

L. VAN DER WOLK: Dr. Schmidmaier will be organising the integration of the library, specialised information sections, technical services (reprography etc) and audio-visual methods. May we have some further information on how this is visualised?

D. SCHMIDMAIER: The Minister of Education has issued a decree (not yet published) in which it is laid down that the director of the library is charged also with the co-ordination and execution of the information work of the University. The organisation chart therefore will be changing from

![Organisation Chart]

E-17
Each of the three divisions has a deputy director and the chief of the departmental information sections is in future also chief of the departmental libraries.

As a general research library, the university library promotes study, teaching, research and practice by collecting, and disseminating the special literature in the disciplines of the university. As a central library it provides the students during their general and special study with the necessary literature by means of graded textbooks and by making standard works and textbooks available in the reading-room; it is also responsible for subject matter of general interest, the supply of periodicals and the exchange of publications. It guides and co-ordinates library work within the university system and forms an organisational unit with the departmental libraries.

It is the task of the departmental library to provide the special literature of the section, i.e. the permanent literature for teaching, research and special study. The library acts as a reference library, but is also a lending library within the university and for inter-loans.

P. KÄEGBEIN: There are similar changes coming in West Germany. At the moment the Berlin Technological University has three levels, the university library, the department libraries and the institutional libraries - the last two being quite independent of the university library. The position will change because of two new developments:

1) The Wissenschaftsrat has concluded that the departmental libraries should be part of the central university library.

2) The general reform of the universities will lead to a transformation of the separate institutes and chairs into departments which, in their turn, will generate departmental libraries that are part of the university library.

The University library system will therefore become a single unit and the organisation chart will look something like this

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University Library

- Central library
- Technical Services
- University Archives
- Systems analysis
- Literature Documentation
- Publications (University Press)

Departmental libraries
(one per department)
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At the moment we have 6 departmental libraries: chemistry, physics, architecture, geosciences, agriculture and town planning.

R.A. WALL: May I ask Dr. Schmidmaier about the cataloguing situation within the organisational framework that he describes? Does the library catalogue contain all material together with its location and what is the catalogue treatment for audio-visual aids?

D. SCHMIDMAIER: The Central Library caters for first year requirements. All other advanced or specialised material is catalogued at Information Institute level. The problem of audio-visual aids has not yet arisen.