

PRIME MINISTER'S OFFICE
NATIONAL COUNCIL FOR RESEARCH AND DEVELOPMENT
NATIONAL CENTER OF SCIENTIFIC AND
TECHNOLOGICAL INFORMATION



BASIC TRAINING PROGRAMME
FOR
LIBRARY TECHNICIANS IN MEXICO

LYDIA VILENTCHUK

TEL-AVIV, MARCH 1973

INFOBILA

In reply, please quote
באשורה נא להזכיר

No.

Date March 1st. 1973 תאריך

Ing. Guillermo Fernández de la Garza
Director del CSID
CONACYT
Mexico, D.F.
México

LETTER OF TRANSMITTAL

Dear Mr. Fernandez,

Ré: Proposals for a Basic Education Programme
in Librarianship in Mexico for the years
1973-1977.

I have the pleasure to submit herewith the proposals resulting from my mission on behalf of your organization, in January/February 1973.

I trust this will help you to formulate your policy and to take the necessary steps to alleviate the most pressing needs for trained manpower in Mexican libraries and information centers.

I should like to record my thanks to the members of the CONACYT staff and the many prominent librarians of Mexico, without whose help and cooperation my mission would not have been possible.

Yours sincerely,



Lydia Vilentchuk

CONTENTS

	page
Present Pre-University Education	1
Present Library Network	2
Present Education Facilities in Librarianship	3
Summary	4
Recommendations	6

APPENDIX I

Syllabus for Courses in Librarianship Leading to a Certificate of "Library Technician Assistant" and "Library Technician"	11
Part One - Library Technician Assistant	13
Part Two - Library Technician	21

APPENDIX II

Immediate Action to Be Taken for Implementing an Intensive Training Programme for Library Technicians	31
General Considerations	31
Organization of Intensive Courses	32
Time-Table for the Preparation of the First Intensive Courses	34

PROPOSALS FOR A BASIC EDUCATION PROGRAMME IN LIBRARIANSHIP IN MEXICO
FOR THE YEARS 1973-1977

1. PRESENT PRE-UNIVERSITY EDUCATION

Mexico has today a population of about 50 millions, approximately half of it in the age group of under 20.⁽¹⁾ This means that any training programmes initiated today will influence the professional life of the country for the next 45-50 years, taking the age of 65 as the normal retiring age.

The pre-university education today is free in all government schools, and is carried out in three stages: 6 years compulsory primary education till the age of 12; 3 years secondary school till the age of approximately 15; and 3 years of "Preparatoria" till the age of 17-18. This last stage is attempted by relatively few, because of a high percentage of drop-outs caused mainly by the strained economic circumstances of the working population. According to the population census of 1970⁽²⁾ the enrollment in the first grade of the primary school is over 2 millions, but only 821,363 pupils reach the sixth grade - a drop-out of about 60%. Only 13.6% of those who started the first grade are enrolled in a secondary school, and only about 4% of them reach a "Preparatoria" or vocational school. Most of those attending a "Preparatoria" are already gainfully employed and can devote to their studies only the afternoon or evening hours, after a tiring working day; the absence of well organized school libraries and laboratories also impedes their scholastic progress.

40%

2. PRESENT LIBRARY NETWORK

According to the official statistics for the year 1970⁽³⁾ there were 290 university libraries (faculty libraries are included in this number as separate entities), about 280 school libraries, 78 special libraries, and about 1,100 public libraries. These numbers, although rather low in themselves, do not, however, reflect the real situation, which is even less satisfactory than the bare statistical data imply.

The country does not have a library law, so that the few existing public libraries suffer from the absence of an adequate budget; their stock is small, haphazard, and in poor physical condition, and the personnel in charge has mostly not had the benefit of professional training. In some provincial university towns the university library is open to the general public as a sort of public library, for reference and use of books on the premises, however mostly without lending facilities.

Some primary and secondary schools have small collections of reading matter in locked cupboards in charge of a teacher who lends them to the children. In some "Preparatoria", especially those attached to universities, there are reading rooms. The stock, however, is small and haphazard, consisting mostly of donations. No catalogues are available, and the books are accessible to the readers only through the mediation of a person in charge, who in many cases is not a trained librarian. Therefore, these "reading rooms" are mostly used as a place for preparation of school assignments, but not as libraries.

The system of open shelves is practiced in only a few university libraries, like in the exceptionally well-run library of the Instituto Tecnológico de México, and for a special group of readers only, in the Colegio de México, both located in Mexico City.

3. PRESENT EDUCATION. FACILITIES IN LIBRARIANSHIP

There are about 6,000 persons presently working in libraries in Mexico, of whom only about 500 have had any type of library training. Library training is considered anything from 20 hours of in-training to "Licenciado" in Library Science - a 4-year university course, approximately equivalent to B.L.S. Only 50 of the 500 are really qualified librarians, some of them with Master degrees, mostly from American universities. (4)

The Escuela Nacional de Biblioteconomía y Archivonomía, which belongs to the Ministry of Education, is offering since 1945 a two-year evening course for graduates of the "Secundaria" (15 year olds) to be trained as library technicians. Over 700 students enrolled in these courses since its inception in 1945, but in the opinion of the director of the school only about 10% graduated (no exact figures available). Even so, as the status and the pay of these technicians are very low, a considerable number of them did not remain in the profession (exact numbers not known). The school has also offered a 3-year course for graduates of the "Preparatoria", in which during the years since its inception about 300 enrolled. The number of these who actually graduated from 1945 till 1972 was only 7.

As against the paucity of training facilities for library technicians there is a greater choice of university training programmes.

On the university level the National University of Mexico has, in the period 1956-1961, offered 3-year postgraduate courses, to which, however, it accepted also non-university graduates with a "Preparatoria" certificate. The last category had to take some additional general educational courses. Although the enrollment into these courses was rather large, and although upon graduation the title of Master was granted, only 8 students graduated during the whole 5 years. Since 1961 the programme was changed to a 4-year course, leading to a "Licenciatura". To this programme students are accepted after "Preparatoria", and during its 11 years of existence 12 students graduated. In 1968 an additional programme of 6 years study after "Preparatoria" was initiated, leading to a Master degree in Library Science. There are no graduates yet from this course. Finally, in 1972, a 2-year postgraduate programme was started for those holding a "Licenciatura" in any discipline, leading to a Master degree in Library Science.

SUMMARY

The rather haphazard and top-heavy organization of the education network in librarianship, as well as the present quantitative and qualitative deficiencies of the libraries, especially those which should serve the public in general, and the primary and high school pupils in particular, has an adverse effect on the development of the country. The situation is not conducive to fostering reading habits and use of libraries and information in general, neither among students at any level, nor among the public as a whole. It gives a picture of a

"library system which, although it includes here and there commendable examples of progress, is as the whole too retarded to cope with changing library and information requirements of a nation, that is so rapidly advancing economically, educationally and socially". (5)

The intellectual leaders of the country have a will and a drive to change matters and to compensate for years of neglectfulness and stagnation. CONACYT (Consejo Nacional de Ciencia y Tecnología), was set up in 1971 to further the scientific and technological advancement of the country. Among many other tasks, it has undertaken the improvement of scientific, technological and university libraries, to foster their use, and to develop reading habits among the population, as a tool for the technological advancement of the country.

It is a truism to say that a library consists of four parts: the premises, the stock, trained manpower to exploit the stock, and a motivated readership - in this ascending order of importance. A poor stock can still be made useful by a trained librarian, who knows how to make full use of its possibilities; a relatively rich stock is useless if it is not properly catalogued, classified, and analyzed, and the person in charge does not know how to extract its information potential. On the other hand, the best arranged and maintained library will miss its goal if the public has no reading habits and is not conscious of the fact that the library is there to satisfy many of its cultural and professional requirements.

It is the great merit of CONACYT's leadership that it recognized these problems and decided to undertake the necessary steps to promote the use of libraries and of recorded scientific and technological information, as well as to foster reading habits of the population.

RECOMMENDATIONS

The recommendations can be divided into three groups: 1. Short term actions - to alleviate the most pressing needs for trained manpower; 2. Long term actions - to standardize the training of library technicians and to achieve recognition of librarianship as a profession, by the appropriate authorities; and 3. Long range policy - to influence the general educational system of the country and to promote a library and information network which will improve the reading habits of the population and foster the use of information media on all levels.

1. Short Term Actions

- 1.1 To undertake the necessary steps for the implementation of the combined four-year syllabus of "Preparatoria / Library Technician" programme as from September 1973 (Appendix I).
- 1.2 To implement immediately the teaching of the same syllabus (Appendix I) as an intensive full-time programme, until the first technicians from programme 1.1 will graduate in 1977. Students for this intensive programme should be selected from personnel already working in libraries.

1.2.1 To start in September 1973 the first stage of the intensive programme (Appendix I, Part One) as a six-month course leading to a Certificate of Library Technician Assistant. This course should be organized and financed by CONACYT (Appendix II).

1.2.2 To repeat the 1.2.1 course, commencing March 1974.

1.2.3 To commence in ^{Sept.} March 1974 the second stage of the full-time intensive course (Appendix I, Part Two), leading to a Certificate of Library Technician, selecting as participants a group of approximately 50 of the best graduates of the two previous "Assistant" courses.

1.2.4 To repeat the procedure delineated in 1.2.1, 1.2.2, and 1.2.3, till the first graduates of the 1.1 programme are available in 1977.

1.3 [To prepare a cadre of teachers in librarianship for all levels: technicians, university trained librarians and those specially trained as library administrators. For the next several years, this should be done preferably by sending outstanding graduates in librarianship "Licenciatura" of the National University of Mexico for further formal study abroad.

2. Long Term Actions

- 2.1 To undertake the necessary steps, to have the detailed syllabus for Library Technicians (Appendix I) recognized as the only binding one for obtaining a Certificate of Library Technician for all schools offering training in librarianship.
- 2.2 To create one examining body for the whole of the country, which alone will be authorized to examine candidates and grant certificates of Library Technician Assistant and Library Technician. The Ministry of Education seems to be most suitable for this task.
- 2.3 To further the creation of combined "Preparatoria / Library Technician" courses (Appendix I) in as many parts of the country as possible.
- 2.4 To redesign and raise the university training in librarianship and information science with a view to standardize the level (not necessarily contents) of courses offered by different authorities, so that the academic degrees achieved, like Licenciatura in Librarianship (B.L.S.), Master in Librarianship (M.L.S.) or in Information Science (M.I.S.) should be compatible with one another and with those from foreign universities.
- 2.5 To introduce into the first year of university studies at all faculties short "library orientation" courses, to make students

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- 2.5 To introduce into the first year of university studies at all faculties short "library orientation" courses, to make students

familiar with the library contents, arrangements and procedures.

- 2.6 To approach the relevant authorities in government as well as in the universities to recognize librarianship as a profession, and to define a status and fix a pay scale for librarians commensurable to their professional education.

3 Long Range Policy

- 3.1 To influence the appropriate authorities to enact a law or at least a regulation making it mandatory for the Ministry of Education and the universities (for the "Preparatorias" attached to them), to introduce libraries in all primary, secondary and "Preparatoria" schools. These libraries should have appropriate budgets, premises (including reading rooms), reference collections, open shelves, and lending facilities, and be in charge of trained librarians or teacher librarians. This will raise the present educational level of the general population and foster its reading habits and information-mindedness. Incidentally, this has been advocated as early as 1960 by Prof. Roberto A. Gordillo at the Terceras Jornadas Mexicanas de Bibliotecarios.
- 3.2 To influence the appropriate authorities to enact a library law making it mandatory for the local authorities to maintain public libraries in all parts of the country, with standardized

requirements regarding budget, premises, services, and manpower, in accordance with the number and educational level of the population to be served.

References

- 1 Olizer, H. *A Guide to the Mexican Markets*. Mexico, D.F., 1970. p. 19.
- 2 Estados Unidos Mexicanos. *Secretaría de Industria y Comercio, Dirección General de Estadística. IX Censo General de Población*, 1970.
- 3 *Secretaría de Educación Pública, Departamento de Bibliotecas. Directorio de Bibliotecas de la República Mexicana*, 4th ed., 1970.
- 4 Gordillo, Roberto A. *El Servicio Bibliotecario Mexicano. Fichero Bibliográfico Hispanoamericano*. Vol. 11, No. 7, pp. 2-18.
- 5 White, Carl M. *Mexico's Library and Information Services; a Study of Present Conditions and Needs*. New Jersey, Bedminster, 1969.

APPENDIX I

SYLLABUS OF A COURSE IN LIBRARIANSHIP LEADING TO A CERTIFICATE
OF "LIBRARY TECHNICIAN ASSISTANT" AND "LIBRARY TECHNICIAN"

The syllabus is standardized and binding for all Mexican schools offering courses in librarianship.

The syllabus is divided in two approximately equal parts: Part One - Library Technician Assistant, and Part Two - Library Technician. It may be covered either in the framework of an intensive full day course of one year duration, for students who have completed their "Preparatoria" studies, or of a four-year curriculum in combination with the regular "Preparatoria" programme of studies.

It is presumed that part of the students will not be in the position to devote to their studies a full year in an intensive course, or four years in a combined "Preparatoria/Library Technician" programme, and will have to start working already after completing Part One of the syllabus. Therefore, the syllabus aims at providing already during its first stage a rounded-up training which would enable the graduate of Part One to carry out much of the library routine work.

It is further presumed, that because of the insufficient number of trained librarians in the country - a situation which will probably prevail for many years to come - an Assistant will often be the only librarian in a small library, and will have to start working without the benefit of guidance by an experienced supervisor. It has been

felt therefore that, in addition of being trained to carry out most of the routine work of a small library, like cataloguing, acquisition, lending procedures, etc., the student should possess already at this stage some knowledge of administrative problems, and the ability to use simple reference tools.

It is also suggested, that in addition to subjects in librarianship, the course should include at the Assistant's level - training in typing, and at both levels the study of the English language.

SYLLABUS PART ONE - LIBRARY TECHNICIAN ASSISTANT - will comprise 380 instruction hours in librarianship, 20 hours in typing, and 125 hours in English language, altogether 525 hours.

SYLLABUS PART TWO - LIBRARY TECHNICIAN - will comprise 365 instruction hours in librarianship and 135 hours in English language, altogether 500 hours.

Home assignments should be calculated on the average of 1 1/2 hours per each contact hour.

The syllabus of Part One, if successfully mastered, will entitle the student to a certificate of "Library Technician Assistant" and that of Part Two - of "Library Technician".

As mentioned above, this syllabus can be offered either as an intensive full day course, each Part requiring approximately 6 months, including examinations, or as a four-year combined "Preparatoria/Library Technician" programme. In this programme the studies of librarianship will be divided in Part One and Part Two, each Part spreading over two years. All the usual "Preparatoria" subjects will be completed in the first 3 years, the fourth year being devoted exclusively to librarianship and English language. The division of instruction hours in librarianship for the third and the fourth year will be 90 and 275 hours respectively. In the fourth year a greater emphasis will be laid on recommended reading and home assignments.

It should be noted that the syllabus of Part One prepares the student for work in a public as well as in a special or university library, while the syllabus of Part Two is oriented towards the special and university libraries only.

SYLLABUS PART ONE - LIBRARY TECHNICIAN ASSISTANT

1. INTRODUCTION TO LIBRARIANSHIP 4 hours

Library functions and activities common to all kinds of libraries.

2. KINDS OF LIBRARIES 10 hours

National, university, special, public, school. Characteristics of each with regard to management, legal position, budget, kind of users, kind of library material, kind of readers services, standards, etc.

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3. DIVISION OF FUNCTIONS IN LIBRARY SERVICES

3.1 Administrative Functions

30 hours

Determination of policy, planning, budgeting, division of budget for material, maintenance, accounting, manpower - quantity and quality, etc., in different kinds of libraries.

3.1.1 Library Premises: furniture and equipment, planning of premises, determination of space required for various activities, basic furniture requirements - including shelves and their holding capacity; basic equipment - card catalogues, duplication and photocopying equipment.

3.1.2 Public Relations: publications, accession lists, annual reports, statistics (initiation and processing), exhibitions.

3.2 Technical Functions

3.2.1 Accessions: selection, checking of availability, 10 hours ordering, receipt, registration, stamping, writing of numbers, preparation for the shelf. Operation of these processes with regard to different types of material. Subscriptions to periodicals, checking of receipt, reminders, renewals.

3.2.2 Cataloguing: theoretical and practical

90 hours

aspects. Filing, shelf lists, coding.

Theoretical Aspects: what is cataloguing; the function of the catalogue as a tool to aid the librarian and the readers; aims and rules of cataloguing.

Kinds of Catalogues: definition and functions of author, classified, title, dictionary, combined (author and title), authority card, printed and card catalogue, shelf list. Duplication methods (not the technical processes).

Terminology: in Spanish and in English, according to Anglo-American Cataloguing Rules.

Preparation of Catalogue Cards: main cards, added cards.

Entry: Anglo-American Cataloguing Rules, # 1-9, 11, 15, 17, 18, 27A, 29C, 33.

Heading: Anglo-American Cataloguing Rules, # 40-42, 46A, 46B, 46E, 49A, 50, 52, 60-62, 64, 65, 68-70, 78, 79, 100, 102A, 108-110, 115A-115D.

Descriptive Cataloguing: Anglo-American Cataloguing Rules, # 130-146.

Analytical Cataloguing: Anglo-American Cataloguing Rules, # 156C, 156E1.

Serials and Periodicals: Anglo-American Cataloguing Rules, # 160, 161, 167G.

Filing: filing rules according to ALA Rules for filing catalogue cards, 2nd ed., 1968 (in Spanish).

3.2.3 Classification: function of a classification scheme. 50 hours

Dewey Decimal Classification - abridged Spanish edition. Construction of number in addition to those explicitly mentioned in the tables, especially "geographical division" "divide as ..."; familiarity with the use of the index; L.C. Classification - its general layout, its notation, its enumerative aspect.

3.2.4 Subject Headings, 10 hours

3.2.5 Physical Maintenance of Library Material: 6 hours

Small repairs, preparation for binding, giving out to binders, checking upon receipt.

4. SERVICES TO READERS

4.1 Lending: registration - detailed description of two conventional lending systems (Newark, Brown); advantages and disadvantages; interlibrary loans; reserved books. 12 hours

4.2 Arrangement of Collections: various types of shelving 8 hours
(open and closed access); advantages and disadvantages.

4.3 Readers' Guidance in the Use of the Library: clas- 20 hours
sification scheme, catalogues, reference section,
reference service - orally, in writing, by telephone;
interlibrary reference service, preparation of reading
lists for groups of users with special needs, preparation
of bibliographies.

4.4 Reference Books 100 hours

4.4.1 Parts of Book: title page, contents page,
introduction, main part, illustrations, notes,
bibliographies, indexes, binding, cover;
information obtained from each part.

4.4.2 Various Groups of Reference Books: directories
(starting with telephone directory), diction-
aries, biographical reference sources,
encyclopedias, geographical reference sources,
bibliographies.

4.4.2.1 Intimate Knowledge of 33 Reference Books.

A. Directories

1. World almanac

2. The statesman's yearbook

3. UN statistical yearbook
4. Directorio del Poder Ejecutivo Federal
5. The world of learning
6. Research centers directory
7. Anuario estadístico (México, S.I.C.)
8. IX Censo general de población (México, S.I.C.)

B. Biographical Reference Sources

1. Webster's biographical dictionary
2. Diccionario Porrúa de biografía, historia y geografía

C. Encyclopedias

1. Encyclopedia Britannica
2. World book encyclopedia
3. Pequeño Larousse en color
4. Gran enciclopedia del mundo
5. Enciclopedia temática CIESA
6. Gran Omeba, diccionario enciclopédico ilustrado
7. Enciclopedia de México

D. Dictionaries

1. Diccionario de la lengua (Academia)
2. Enciclopedia del idioma
3. Diccionario español-francés, francés-español
4. Nuevo diccionario Duyas, inglés-español, español-inglés (Appleton Century)

E. Geographical Reference Sources

1. Webster's geographical dictionary
2. Atlas geográfico general de México
(Tamayo)
3. Columbia Lippincott gazetteer of
the world

F. Bibliographies

1. Winchell, D.M., Guide to reference
books
2. Ulrich's international periodicals
directory
3. Catálogo colectivo de publicaciones
periódicas existentes en bibliotecas
de la República Mexicana
4. Directorio de editoriales y editores
mexicanos
5. Subject guide to books in print - U.S.
6. Fichero bibliográfico hispanoamericano
7. Libros en venta
8. Boletín bibliográfico Porrúa
9. Union Catalog of the L.C.

5. LIBRARIANSHIP IN MEXICO AND IN THE WORLD

30 hours

5.1 History of libraries and books - general.

5.2 History of libraries and books in Mexico.

5.3 Organizations concerned with librarianship in Mexico,
their aims, structure, activities, publications.

5.3.1 Government departments.

5.3.2 Professional associations.

5.3.3 Education for librarianship.

5.4 International organizations concerned with librarianship;
their aims, history, structure, activities, publications:
UNESCO, IFLA, FID.

TOTAL 380 hours

Recommended Reading

1. *Breviarios del bibliotecario.* 13 vols.
2. Heintze, Ingeborg. *La organización de la pequeña biblioteca pública.* París, UNESCO, 1963, 66 p.

APPENDIX I - PART TWO

SYLLABUS PART TWO - LIBRARY TECHNICIAN

1. CATALOGUING

30 hours

- 1.1 Bibliographical Tools and Aids to the Cataloguer: LC, COHEN.
- 1.2 Headings for Corporate Bodies: conferences, congresses, meetings, etc., Anglo-American Cataloguing Rules, # 87-91.
- 1.3 Serials and Periodicals: Rules # 162-170, 172.
- 1.4 Non-book Material: maps, Rules # 210-212; atlases, Rules # 215; motion pictures and film strips, Rules # 220-228; music, Rules # 230, 244-248; gramophone records, Rules # 250-253; pictures, two-dimensional representations, Rules # 260-272.

2. CLASSIFICATION

30 hours

- 2.1 Traditional Library Classification Schemes (Dewey, LC, UDC): history, general characteristics, notations, use of mnemonics, suitability for different purposes.
- 2.2 Role of Classification as Retrieval Tool: classified catalogue, its comparison with a catalog arranged

alphabetically by subject headings, author, title, etc.

Broad classification as against depth classification.

3. SERVICES TO READERS

30 hours

3.1 Routing of Journals: to departments, to individuals, selected, non-selected - procedures and forms.

3.2 Library Publications: accession lists - their periodicity, arrangement, distribution; readers manuals - information they should contain, layout, charts, etc.

3.3 News Boards: information they should supply, attractive arrangements, etc.

3.4 Outside Contacts: relevant libraries, information centers and specialists in Mexico; interlibrary enquiries and loans; CONACYT: aims, organization and publications.

4. PUBLISHED SOURCES OF INFORMATION

4.1 Techniques of Retrospective Literature Searches, Preparation of Bibliographies, Bibliographic Citations.

15 hours

4.2 Types of Literature and Relationship among them.

30 hours

4.2.1 Primary Sources

- * Periodicals: technical and/or scientific, semi-popular, popular, house organs, learned societies and professional associations.
- * Monographs.
- * Reports: government, non-government, internal, progress.
- * Conference papers.
- * Patent specifications.
- * Standards: international, government, non-government.
- * Dissertations.

4.2.2 Secondary Sources

- * Reference books.
- * Encyclopedias: general and subject.
- * Textbooks (as compiled from primary sources).
- * Indexing and abstracting services.
- * Types of abstracts (indicative, informative, author) and their bibliographic citations.
- * Bibliographies.
- * Reviews of progress, "advances in ...", and "state-of-the-art" reports.
- * Current contents.
- * Guides to conventions, translations, dissertations.

4.2.3 Tertiary Sources

- * Guides to literature.
- * Listings of periodicals.
- * Listings of indexing and abstracting services.
- * Listings of institutions and organizations:
government, professional, learned, research,
higher institutes of learning.
- * Bibliographies of bibliographies.

4.3 Familiarity with selected representative publications listed below, and ability to use them to answer specific reference questions.

4.3.1 GENERAL

100 hours

1. Taton, René, ed. General history of the sciences. London, Thames, 1964-1966. 4 vols.
2. Katz, William. Introduction to reference work. Vol. 1 - Basic information sources. New York, McGraw-Hill, 1969.
3. Jenkins, F. Science reference sources. 5th ed. Cambridge, Mass., MIT Press, 1969.
4. U.S. Library of Congress. National union catalogue. Washington, 1942.
5. British union catalogue of periodicals. New York, Academic Press, 1955-1958+. Supplements and new periodical titles.

6. Dissertation abstracts international. Ann Arbor, Mich., University Microfilms, 1952-
7. American men and women of science. Tempe, Cattell, all parts. Last ed.
8. Who's who in science in Europe. Guernsey, Hodgson. Last ed.
9. Yearbook of international organizations. Brussels, Union of International Assoc., 1948-
10. Encyclopedia of associations. Detroit, Gale. Last ed.
11. Thomas' register of American manufacturers. New York, Thomas. Last ed.
12. Kruzas, A.T. Directory of special libraries and information centers. Detroit, Gale, 1966-1968. 2 vols.
13. UNESCO. World guide to science information and documentation services. Paris, 1965.
14. UNESCO. World guide to technical information and documentation services. Paris, 1969.
15. FID. Abstracting services. The Hague, 1969. 2 vols.
16. World Meetings Information Center. World meetings. Chestnut Hill, Mass., 1971-
17. McGraw-Hill encyclopedia of science and technology. Last ed. appx. 15 vols.

18. Kent, Allen and Lancour, Harold, ed. Encyclopedia of library and information science.
New York, M. Dekker, 1968-
19. International encyclopedia of the social sciences. New York, MacMillan, 1968. 17 vols.
20. Business periodicals index. New York, Wilson, 1958-
21. Applied science and technology index. New York, Wilson, 1913-
22. Chamber's technical dictionary. New York, MacMillan. Last ed.
23. UNESCO. Study abroad. Paris. Last ed.
24. Crowley, Ellen. Acronyms and initialisms dictionary. Detroit, Gale. Last ed.
25. CONACYT. Calendar of future meetings.
26. Diario Oficial.
27. Mexican statistical publications.

4.3.2 and 4.3.3 Familiarity with selected representative publications either from the list 4.3.2 - "Natural and Life Sciences" or from the list 4.3.3 - "Exact Sciences and Technology", and the ability to use them to answer specific reference questions.

40 hours

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4.3.2 NATURAL AND LIFE SCIENCES

1. Bottle, R.T. and Wyatt, H.V. The use of biological literature. London, Butterworth. Last ed.
2. Blake, J.B. and Roos, C. Medical reference works 1679-1966; a select bibliography. Chicago, Medical Library Assoc., 1967. ←
3. Amman, G.L. and Felter, J.W., ed. Handbook of medical library practice. Chicago, Medical Library Assoc., 1970.
4. Grant's atlas of anatomy. Baltimore, Williams and Wilkins. Last ed.
5. Gray, P. Encyclopedia of biological sciences. New York, Van Nostrand. Last ed.
6. Diccionario médico-biológico universitario.
7. Elsevier's medical dictionary in five languages.
8. Biological and agricultural index. New York, H.W. Wilson, 1916.
9. Index Medicus. Bethesda, Maryland, U.S. Nat. Library of Medicine, 1960.
10. Enciclopedia farmacéutica.
11. Diccionario de botánica.
12. Diccionario de biología.
13. Diccionario enciclopédico de veterinaria.

4.3.3 EXACT SCIENCES AND TECHNOLOGY

1. Houghton, B. Technical information sources. 2nd ed.
London, Bingley, 1971.
2. Parsons, S.A.J. How to find out about engineering.
New York, Pergamon Press., 1972.
3. Bottle, R.T. The use of chemical literature. London,
Butterworth. Last ed.
4. Kirk, R.E. y Othmer, D.F., ed. Enciclopedia de tec-
nología química.
5. Handbook of chemistry and physics. Cleveland, Chemical
Rubber Co. Last ed.
6. Manual del ingeniero mecánico de Marks.
7. Kempe's engineer's yearbook. Lunday, Morgan, 1894-
8. Manual standard del ingeniero electricista.
9. Electronics buyers' guide. New York, McGraw-Hill.
Last ed.
10. Sweet's catalog service. New York, S.W. Dodge Co.
Last ed.
11. Enciclopedia Salvat de ciencia y tecnología.
12. Diccionario para ingenieros.
13. Enciclopedia de la técnica y la mecánica.

5. REPROGRAPHY

15 hours

Systems and equipment. Criteria for selecting equipment.

* Reproduction: stencil, silver halide photography, Xerox,
Electrofax, Diazo, Kalvar.

- * Offset (not the technical processes).

- * Microforms.

6. STORAGE AND RETRIEVAL OF INFORMATION

6.1 Some types of non-book material and their acquisition,
storage, updating, retrieval.

30 hours

- * Standards.

- * Patent specifications.

- * Trade catalogues.

- * Maps.

- * Technical manuals.

- * Microforms.

6.2 Indexing.

30 hours

6.2.1 Principles and systems.

- * Alphabetic subject indexing, subject headings,
authority lists, coordinate indexing.

- * Pre-coordination, post-coordination, feature
cards.

6.2.2 Some applications.

- * Uniterm card indexing.

- * "Peek-a-boo" card indexing.

- * Edge notched card indexing.

N.B. The student should not be expected to carry out the indexing by himself, but only to understand its principles, and the work techniques. He should be expected to carry out the technical work connected with indexing, like filing, posting and punching, and be able to use the different kinds of indexes.

6.3	Mechanized equipment.	15 hours
	Simple mechanized equipment (like flexowriter etc.) and its use.	
TOTAL		365 hours

Recommended Reading

1. Tait, James and Anderson, F. Douglas. *Descriptive cataloguing; a students' introduction to the Anglo-American cataloguing rules*. London, C. Bingley, 1968.
2. Sayers, W.C.B. *A manual of classification for librarians*. London, A. Deutsch. Last ed.
3. Riddle, Jean et al. *Non-book materials; organization of integrated collections*. Ottawa, Canadian Library Association, 1970.
4. Varry, H.R. *Document copying and reproduction processes*. London, Fountain Press, 1960.
5. Hawken, W.R. *Copying methods manual*. Chicago, ALA, 1966.
6. Collisson, R.Z. *Indexes and indexing*. London, E. Ben. Last ed.
7. Ashworth, W., ed. *Handbook of special librarianship and information work*, 3rd ed. London, ASLIB, 1967.
8. Redmond, D.A. *Pequenas bibliotecas tecnicas*. UNESCO Bull. of Libraries, Vol. XVIII, No. 2, 1964, pp. 3-33.

APPENDIX II

IMMEDIATE ACTION TO BE TAKEN FOR IMPLEMENTING AN INTENSIVE TRAINING
PROGRAMME FOR LIBRARY TECHNICIANS TO ALLEVIATE THE ACUTE SHORTAGE
OF PERSONNEL IN MEXICAN UNIVERSITY AND SPECIAL LIBRARIES

GENERAL CONSIDERATIONS

A two-stage educational programme in librarianship should be initiated. The first stage of the programme will lead to a certificate of "Library Technician Assistant" and cover Part One of the "Technician" syllabus, comprising 380 instruction hours in librarianship, 20 hours in typing and 125 hours in English language. The second stage will lead to a certificate of "Library Technician" and cover Part Two of the syllabus, comprising 365 instruction hours in librarianship and 135 hours in English language.

This educational programme should be uniform for the whole of the country, and to achieve this, it is suggested that only one examining body will hold the examinations and grant the certificates. The most appropriate body for this purpose seems to be the Ministry of Education.

The absolute minimum of the general educational level of a Library Technician can not be less than that of a "Preparatoria" graduate. Therefore the combined Preparatoria/Library Technician programme, in which the student will have to cover all the normal subjects of the "Preparatoria" programme in addition to the professional instruction hours in librarianship, will last 4 years.

This programme should be started in the autumn of 1973, so that its first graduates will be available in 1977.

However, in view of the necessity to produce a nucleus of trained library technicians in as short a time as possible, without on the other hand jeopardizing their professional competence, it is suggested to select 100 students out of the 5,500 persons presently working in libraries without having had the benefit of any library training, and put them through an intensive training course covering the syllabus of Library Technician. For this course the above mentioned educational requirements could be dispensed with.

ORGANIZATION OF INTENSIVE COURSES

I FIRST STAGE - LIBRARY TECHNICIAN ASSISTANT

1. Duration of Course (including final examinations) - six months.
2. Commencement of Course. Two parallel courses should start on September 1st, 1973 and end on February 27th, 1974. The next two parallel courses should start on March 3rd, 1974 and end August 31st, 1974. Saturdays are to be considered as working days till lunch time.
3. Student Body. The students should be full-time students. Each class should comprise 25 students, two classes running at the same time. This procedure should be repeated twice, so that approximately 100 graduates of the first stage of the course should be available for selection of the first 50 students for the second stage of the course, to start by September 1974.

Requirements for Admission

- * Experience in library work of at least 2 years.
- * Age 20-45.
- * Motivation - probability that the student will stay in the profession (to ascertain through personal interviews).

4. Fellowships. For the duration of the course, the selected students will receive a fellowship from CONACYT which will enable them to forgo the salary they are earning now at their working places.
5. Re-entry of the Successful Students into their Previous Places of Employment. For the duration of the course the present employer will have to release the student from all his duties at his working place and will not have any financial obligations towards him.

After the completion of the course the student will return to his previous place of employment. However, an undertaking from the employer has to be secured in advance, that immediately after the completion of the first stage - Assistant - the student will get a raise in his previous salary, and after completion of the second stage - Library Technician - another appreciable raise.

6. The Teachers should be full-time teachers. One teacher for cataloguing and classification, one teacher for bibliography and administration. Each teacher should have an assistant teacher

working with him. The qualification of the assistant teachers should be such, as to enable them to function as teachers at the next course. The eventuality should be considered to engage for the first course teachers from outside, e.g., from Colombia school, as the locally available teachers can hardly be freed from their current duties for a period of six months, or even more.

In addition to the teachers in library subjects it will be necessary to secure the services of an English teacher for 2 hours per day (for both parallel courses). To be in the position of giving and checking students assignments, he will have to be employed for at least half a day.

For the first month of the course a teacher for typing instruction will have to be employed 2 hours per day (for both parallel courses).

7. Time-Table for the Preparation of the First Courses

- | | |
|---|----------|
| 7.1 Preparation and confirmation of budget | 12 weeks |
| 7.2 Elaboration of programme and selection of programme
director (for general layout see Appendix 1) | 3 weeks |
| 7.3 Recruitment of students | |

- 7.3.1 Promotion of the course among employers and potential students. The writing, printing and sending out of prospectuses to potential students and their present employers (two different texts). 4 weeks
- 7.3.2 Receipt of applications from candidates, counter-signed by employers. 8 weeks
- 7.3.3 Evaluation of applications. 2 weeks
- 7.3.4 Personal interviews with selected candidates. 4 weeks
- 7.3.5 Mailing of final acceptance notifications to applicants, together with detailed programme and list of recommended reading. 3 weeks
- 7.3.6 Unforeseen. 4 weeks
- 7.4 Selection of teachers and assistants (correspondence, contracts, etc.). 30 weeks
- 7.5 Organization of a model library for students: selection, acquisition, processing. 25 weeks
- 7.6 Hiring of boarding houses. Selection and acquisition of equipment. 6 weeks

8. As all preparations except the preparation and confirmation of the budget can be carried out concurrently, the time required for the preparation of the course will take 42 weeks (12 weeks - budget, plus 30 weeks - teachers engagement, the longest single action). However, as only 28 weeks are available if the course has to start on September 1st, 1973, it is suggested that the preliminary correspondence with teachers should be started immediately, before the final confirmation of the budget.

II SECOND STAGE - LIBRARY TECHNICIAN

The second stage of the course will start in the autumn of 1974. The procedures for its preparation will be on similar lines as those of the first stage, but will require less time, as the candidates will be pre-selected and the basic library and equipment already available. The most of time and thought will have to be given to teachers selection and engagement. This activitiy should therefore be started already in the early spring of 1974.

N.B. Parallel to the preparation and management of the first stages of the course, CONACYT should try to use its influence with the appropriate authorities to have the profession of librarianship be entered in the list of recognized professions with government as well as with university authorities.