Library and information education in Algeria: a framework for curriculum development

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LIBRARY AND INFORMATION EDUCATION IN ALGERIA:
A FRAMEWORK FOR CURRICULUM DEVELOPMENT

by

BEHDJA BOUMARAFI (Bariza)

A Doctoral Thesis submitted in partial fulfilment
of the requirements for the award of the degree of
Doctor of Philosophy
of Loughborough University of Technology

August 1989

Supervisors: Professor John Feather
Dr Jo Haythornthwaite

Department of Library and Information Studies

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DEDICATION

To the memory of my Parents:

"My Father who died when I was too young to appreciate the meaning of fatherhood; my Mother who suddenly passed away while I was preparing to start this study.

May ALLAH have mercy upon their souls and grant them peace in heaven".

* * * * *
ACKNOWLEDGEMENTS

The completion of this study has been made possible through the assistance and help of many people and institutions, both in the UK and Algeria; to those I sincerely extend my gratitude.

First, I am grateful to my successive supervisors: Dr Jo Haythornthwaite, whose guidance and advice helped me start this study, and Professor John Feather who provided an invaluable stimulus through his sound comments and personal interest and helped me to complete successfully.

I would also like to thank Professor A J Meadows, my Director of Research and Head of DLIS, for his support. It is with a great deal of gratitude that I acknowledge the contribution of all colleagues and students of the three institutes of library education in Algiers, Constantine and Oran, whose objective discussions have helped to identify gaps in the curriculum.

I am also grateful to the Algerian Government for the financial support and the members of Constantine University Council for granting me study leave.

My thanks are also due to my family and friends for their encouragement. My most important debt is owed to my best friend, a sister like Ghania and her family who did the most delicate task of taking care of my personal matters during my absence. I also wish to thank the Zeroukis who always made me feel at home in London.

Particular thanks are due to all my friends in Loughborough, especially Bavand and Jilla who generously gave me all the moral support at a time when most needed.

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ABSTRACT

We live in an era characterised by the explosion of information. As societies are becoming more and more dependent on information, not only for the generation of knowledge but also for the generation of revenues, it is imperative that each society develops its own information infrastructure. Such development depends to a great extent on the availability of qualified library and information staff. These should be well trained and equipped with the proper knowledge, skills and attitudes to engage in library and information development programmes. Good training requires, among other facilities, an efficient library education system and a relevant curriculum.

The intention of this study is to provide a framework for approaching curriculum development in Algerian library schools. Included is an overview of the process of curriculum development as seen through a review of the literature, and a look at different approaches to curriculum development and how curriculum design and planning has changed over the years.

In surveying library education programmes in Algeria it was found that among other findings there is strong evidence of the lack of qualified teachers and poor teaching/learning facilities to attempt innovations in the curriculum. These issues are examined in the light of accepted standards in order to establish contrasting features, and measure the adequacy of library education in Algeria.
The study reviews curriculum development activity in the Algerian general education system with emphasis on library education. It brings to attention the essential facts necessary for understanding the environmental factors which led to the current problems and tensions in the Algerian library and information scene.

Whilst agreeing that the basic principles of librarianship are universal and should be studied by every library student everywhere, there are needs peculiar to individual library systems. These must be reflected in the curriculum, to show its relevance to the society and environment where the library school is located. The importance of an improved curriculum which features Algerian librarianship, local and regional information sources is therefore stressed.

The study comes in eight chapters, starting with an introductory chapter specifying the research methodology which involves unstructured interviews and free discussions. Chapter 2 provides a descriptive account of the Algerian general environment and conditions. Chapters 3 to 7 are concerned with the library and information scene and provide a framework for curriculum development. The study reaches significant conclusions in Chapter 8 and makes a number of recommendations, leading to the improvement of library education and its curriculum in Algeria.

Key Words
- Curriculum Development
- Library Education in Algeria
- Libraries and Information in Algeria
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CHAPTER 1

ELEMENTS OF THE STUDY

1.1 INTRODUCTION

The availability, utilisation and development of crucial resources provide a yardstick against which the development of a country can be measured.

Information as a source of income (as valuable as any other resource) is a concept which is rapidly gaining ground. An efficient information infrastructure as an essential attribute of social and economic development is almost a fait accompli. The level of library development also reflects the social, economic and educational development of the society it serves. Society and libraries therefore are closely related to each other. Better social conditions provide better circumstances for library development; and library services provided under better environmental conditions will in turn contribute to national development. It is now a "cliche", at least in developed countries, that libraries are social agencies influencing, and being influenced, by the environment in which they operate. Libraries, however cannot be developed unless they are properly supported. For instance, government support and recognition, proper financial assistance and appreciation of the users and the public at large are important elements. Moreover, library and information personnel can make the Library's contribution to national development
effective or otherwise. Library education thus has a crucial role to play in equipping future graduates with the right attitude and the working qualities to enable them to discharge their duties in a variety of circumstances.

Technological changes have generated sophisticated means of handling and disseminating information. Conversely the role of library and information personnel is becoming more and more complex as information is being increasingly handled by machines. The implications for library schools need not be spelt out; they must, however, be seen in their education programmes to produce graduates with a good degree of general and professional education in order to fill adequately the various library and information positions within and outside information institutions. Library schools have to find ways of providing the growing market place with qualified staff who have the enthusiasm and the competence to carry out their duties in a variety of circumstances. Educators and professional writers have discussed the need for challenging and forward looking curriculum development to reflect the changes in the profession and in order to train information specialists who will fit comfortably in a work environment modified by technological, economic and social changes.

The history of professional education in Algeria is comparatively short hence library education has not accomplished much because of many environmental factors which will be discussed later. This study has revealed considerable dissatisfaction and many complaints about
library education programmes and the learning/teaching facilities. It was also apparent that even though there may be ways to improve the present situation, many factors that are beyond the control of library schools stand in the way of change. It is suggested therefore that the best way to improve, under the present circumstances, is through the development of a curriculum which produces graduates with a sense of duty, trains them in problem-solving, and renders them creative, innovative and adaptable to change. Such a curriculum must be designed in the light of the country's socio-economic and cultural needs, the required knowledge, skills and attitudes, of future professionals.

1.2 BACKGROUND OF THE STUDY

Basically this study is the result of many years of experience in library administration and library education at junior and senior levels. This confirmed a strong belief that a library can be no better than its staff. Only if the people who work in the library have a positive approach to the profession and commitment to their work will the services be a success. A positive approach will stem from the knowledge, attitudes and skills of library educators who must pass this on to their students - the future professionals - through a well designed curriculum fitted to both the general trends of international library and information practice and to national needs and objectives in this area. The logical place for professionals to acquire such values is in a positive and forward looking library school in an institution of higher education.
There have been considerable changes in the socio-economic, cultural and educational systems of Algeria since 1962 (the year of independence). It is therefore appropriate to examine their impact on libraries and information services and, at the same time to determine the responsiveness of library education programmes to the general development of the country and especially to that of the profession.

Since libraries and information institutions are expected to respond to changes in the society which they serve; the changes which affect the profession, especially in the last decade or so have been phenomenal. The complexity of knowledge, the application of sophisticated technology in handling it, the increased awareness of all age groups of the value of information, the diversified need of various users etc add a new dimension to the problem of curriculum development. Library education should reflect these changes in their programmes to produce staff capable of providing and maintaining the services required.

Algeria is going through a period of active development. Hence an efficient information service is essential to support such a process. Unless this need is met, development plans, which are not sufficiently supported by the information infrastructure, may never reach their targets. The only way to achieve the results targeted is by ensuring the availability of an efficient information infrastructure that performs the functions of collecting, organising,
It is assumed that Algerian libraries and library schools are affected by, and reflect, developments in the country. This study surveys those factors that influence libraries and library education developments in the country. Thus, the adequacy or inadequacy of library services needs to be questioned in relation to environmental conditions surrounding them. Problems must be identified and measures for eventual solutions should be taken on a nationwide basis. In other words library services should be largely defined by the political, social, cultural, economic and educational factors of the country.

Library education in Algeria is provided by three Institutes geographically well distributed: the leading institute was opened in 1975 as part of the University of Algiers (the mother University located in the centre of the country). The second most important Institute, was established in the University of Constantine in 1982, which is situated in the eastern part of the country. The third one is part of the University of Oran in the west, opened in 1984. These Institutes are expected to adapt and be responsive to recent changes in the country. This study sets out to examine those changes, while seeking to build up a frame of reference against which the relevance of library education can be assessed. Despite the good intentions of the authorities regarding the development of libraries and information services, a good library and information system has
failed to emerge. The question is: how can the library education curriculum be developed into an effective curriculum that produces staff capable of coordinating and exploiting information sources, and availing themselves of international information sources and systems. This study proposes to address this issue in relation to the following factors:

1. The authorities' attitudes towards libraries, information and library education;
2. The teaching/learning facilities of the existing institutes of library education;
3. The degree of cooperation between library and information institutions and the institutes of library education

These and other factors are discussed, using the results of the analysis of data collected during visits to the three institutes and selected information institutions.

1.3 STATEMENT OF THE PROBLEM

During her work experience, the writer became aware of the problems and weaknesses of library education programmes. The hypothesis of this study, therefore, can be framed as follows: does the present library education curriculum reflect and respond to the needs of Algeria's evolving society? The answer to this question is sought in relation to environmental factors, as their harmony with the
objectives of library education will result in greater relevance to the profession and to national development.

1.4 PURPOSE

This study is undertaken:

1. To identify the positive and negative factors that have affected the development of library education in Algeria
2. To review the information infrastructure in the country
3. To provide an historical survey of library education
4. To examine the present curriculum in order to assess its responsiveness to national needs in libraries and information and identify gaps
5. To provide a framework for curriculum development that will ensure adequate library education in order to promote library and information services to open channels for easy flow of information to all.

1.5 ASSUMPTIONS

1. It is assumed that information is a national resource which should be generated, organised, and conscientiously distributed to the nation according to individual needs. Therefore, it requires qualified manpower capable of performing these tasks resourcefully and efficiently.
2. It is also assumed that any framework for national development must recognise the importance of libraries and information and their contribution to the socio-economic and cultural sectors.

3. Library education is the concern of the government, library educators and professionals alike. Therefore it should
   a) make provision for the improvement of the curriculum to match the objectives of national and educational policies
   b) make provision for the improvement of the qualifications of educators as well as professionals
   c) feature continuing education and engage in research in librarianship and related areas.

1.6 SCOPE AND LIMITATIONS

The scope of this study is confined to Algeria. However, examples from developed and developing countries were used to support conclusions reached and balance personal views.

The study also focuses attention on the period from the 1970s onwards which coincides with the time when the idea of curriculum development began to receive more attention worldwide. It was during this period also that formal library education was recognised as a university subject in Algeria, in 1975.

A major limitation encountered in researching this is the lack of documented literature on Algerian libraries and library education. It is relevant to mention this factor early in the study since this
absence both increased the difficulty of the project and also will, hopefully enhance the usefulness of the findings.

1.7 VALUE OF THE STUDY
This study has the unique advantage of being a pioneering effort in the area of curriculum development for library education in Algeria.

It contains a lot of empirical knowledge derived from first hand experience of the researcher during the foundation of the Institute of Library Education at the University of Constantine. The writer also attended the IFLA General Conference in 1987 which provided contact and fruitful discussions with educators and professionals from developing countries.

This study will be valuable if it sheds light on library practice in Algeria and stimulates a commitment to solving the problems of library education curriculum, staff, status, qualifications and their equivalences with other sectors of education. It is to be hoped that it will also stimulate the need for regular revision of the curriculum so that library graduates will be better equipped to discharge their duties in a variety of situations.

Finally it fills a gap in the professional literature by bringing attention to the situation of libraries and information in Algeria and opens avenues for further research in this field. It coincides moreover with the time when a thorough review of the Algerian
The educational system is being undertaken to update curricula and ensure their social relevance to the country. The real value of this study will be seen in the implementation of its recommendations and their application for curriculum development in Algerian library education.

1.8 METHODOLOGY AND DATA COLLECTION

The method used in this thesis consists of analysing, assessing and presenting data gathered in the course of face-to-face extended interviews. This method was preferred to questionnaires, with which there is a high risk of not receiving replies. The interview method is also believed to produce more spontaneous answers and therefore more accurate and revealing data.

Participants involved in this study were not selected in a systematic way. They were students, lecturers from the three institutes of library education in the country and a few professionals who were available at the time of the survey and were willing to cooperate. Each category of participant was asked different questions [see Appendices 1 and 2]. The answers served as a basis for the identification of the main trends in attitudes and opinions held by library and information students, lecturers and professionals. These were then categorised and analysed to bring together points which could be utilised to propose and support suggestions for a suitable framework for curriculum development for Algerian library education (for more details see Chapter 6). Data for this study has also been collected from various sources including:
1. Published material collected by an extensive literature search using the manual and mechanical facilities of the Loughborough University Library.

2. Unpublished material was obtained through discussions with colleagues and people in education in general and library education in particular.

3. The scarcity of documented literature relating to Algeria led to a reliance on the researcher's years of experience in library profession and education.

4. Finally close attention to literature about similar countries formed a vital source of information for this study.

A wealth of literature was gathered and reviewed to form a framework for identifying the gaps in Algerian library education and reflect on probable and desirable future development.

It should be noted that other information is also based on interviews (Appendix 3) of a few library and information professionals and educators in major UK library schools: Professor M Line, Professor L Cantor, Department of Education at Loughborough University, Professor Bottle of City University, Professor Cronin of Strathclyde, Mr R Shimmon of the Library Association, Mr McGarry of the Polytechnic of
North London, Mr F Hogg and Dr Thompson of Aberystwyth, Professor P Havard-Williams, and Dr A Booth to mention a few.

1.9 ARRANGEMENT
This thesis is divided into eight chapters.
The introduction brings to light the general trends in library education. A brief review of sample studies from developed and developing countries is aimed at showing the concern of professional writers in each of these parts of the world. Information on general characteristics of Algeria i.e. sociology, education, economy etc, is needed in order to set the study within the Algerian context and to supply the specific factors to complete a frame of reference against which library education in Algeria can be assessed. Such information is necessary, because neither libraries nor library education exist in a vacuum, they exist in an environment which enhances or hinders their development. Therefore, by becoming familiar with such factors one is able to relate the development of libraries and information to the environmental conditions and be aware of circumstances that led to the present library situation in the country. The chapters on information infrastructure and library education show the national capacities and capabilities that are responsible for the development, gathering and distribution of information and the provision of manpower.

To match an appropriate curriculum with the local environment, one must first understand the factors and facilities that will help shape
a curriculum designed to serve the type of society in which it operates. The importance of qualified manpower to work in libraries as providers of information services and educators of the masses is discussed in connection with the development of the educational level and the current awareness of the population. Such arguments may convince the policy makers of the value of investing in library education.

Finally a survey of the three institutes of library education is included; their curricula, human and material facilities are discussed and analysed to identify local facilities for trying out innovative ideas, and their limitations are itemised.

Chapters 5, 6 and 7 concern themselves with future prospects, seeking to build a framework for the development of a curriculum to serve Algerian needs in libraries and information. Much of the results will be derived from analysis and interpretation of opinions of 80 participants interviewed during one month's special field work in Algeria.

The remainder of this section deals with the identification of those elements which could constitute a framework for curriculum development in Algeria.

(The study ends with some recommendations aimed at improving libraries and information in general and library education in particular.)
1.10 LITERATURE REVIEW

This review is by no means exhaustive, it is aimed at bringing to light only a few major studies that seem to have been seminal in inspiring curriculum change. At this point it was thought important to review some retrospective studies to acquire an acquaintance with the evolutionary trends in library education and grasp problems involved in curriculum development. The insights acquired into the historical development of library education clarified what were the probable circumstances that led to the need for curriculum change in the past. Studies seen to be important included: C. White *An historical introduction to library education*, 1976 and G. Bramley *Apprentice to graduate: a history of library education in the UK*, 1981. These two publications helped the researcher to understand how library education developed over the years; from Dewey's apprenticeship, to technical training, to university education and finally to the development of a graduate profession.

As societies evolve and education develops knowledge becomes more complex and specialised and so does the work of library and information specialists. Education programmes therefore are being re-examined in the light of these developments. Increasingly, library educators and professionals began to deplore excessive emphasis on the traditional core subjects. Furthermore, in the light of all the technological developments which are transforming environmental conditions, the traditional training is no longer adequate for the preparation of the new breed of information
specialists required. Hence there are calls for changes in library schools curricula for going beyond the traditional core in order to produce graduates better prepared to work in a variety of situations. In this course, a phase of reflections on the possibility of bringing together elements of the core curriculum into a coherent and unified whole was initiated by Unesco. The latter sponsored an international conference in 1974 on harmonization of library education programmes. Suggestions about a common core for the training of librarians, information specialists and archivists were made. Fundamental to this approach is the belief that librarianship, information and archives are three categories of the same discipline. Students should therefore acquire a common body of knowledge to be able to operate interchangeably according to job opportunities at hand.

In the beginning such an approach received widespread acclaim and was widely quoted in subsequent studies about library education programmes. Soon these theories were exposed to vociferous criticisms for being too traditional in content, limited in scope, too rigid and irrelevant to the environment in which they operated. Writers began to seriously question the relevance of a core curriculum. Such criticism drew the attention of library schools to the need for a serious revision of their curricula leading to a major British library report: Curriculum Change in the Nineties (1983). This thus paved the way to many studies on curriculum development where a serious inquiry was undertaken to reveal weaknesses in library schools' curricula and provide for remedial measures. Burrell's doctoral thesis
Curriculum development in librarianship, 1982 stands as something of a landmark for its analysis of library education programmes and curricula in British library schools.

Three major pressures that were to shape library education curricula could be identified in the literature survey:

1. That the curricula should respond to present and future manpower requirements.

2. That the curricula should allow for a variety of special competencies to undertake information work within and outside information institutions.

3. That the curricula should identify and incorporate new knowledge generated by use and application of IT in handling information.

1.10.1 Studies on Curriculum Development in Developed Countries

These three major pressures were identified by writers in developed countries i.e. America, UK, France, Canada and so on, and are used as pointers for curriculum development. Surveys which address themselves to the issue of the market place and manpower requirements and their relationship to education programmes were undertaken. The most noteworthy are those by N. Moore Manpower Planning (1980); Guidelines for conducting information manpower survey (1986), who conducted an intensive study of jobs advertised in British daily newspapers, to determine what type of information personnel are required by the
market place. The use of job analysis as a method for determining knowledge and skills needed to perform certain tasks. Such an approach to curriculum development has been seen by many writers as a worthy method and led to further research in other countries such as Dosa (1983) in America, and in France Perenou-Soenen (1984) inspired by Moore's approach in the use of job analysis as a means of identifying the knowledge specifications needed to perform the tasks identified. Hence the knowledge base for such tasks could be incorporated into the library schools curricula, to determine their relevance to practice. However, it should be noted that none of these studies identified such a knowledge base. All these enquiries provided statistical data to support the conclusion that the market place expanded to business and industry and provided a new approach for inquiry into curriculum development and a methodology for linking library education to library practice. The studies warned library schools that it is their responsibility to integrate environmental changes into their education programmes in order to produce graduates capable of operating in the new technological environment.

Another group of research consists of studies which investigate environmental changes and their impact on users and their needs to lay down foundations for enquiry into curriculum development. The British Library sponsored surveys pertinent to this issue. The most outstanding is Curriculum change in the nineties, 1983 using economic development, social and demographic mobility, educational and technological development changes in users' needs generated by such
developments as pointers for change in library schools curricula. Also in 1986 a Library and Information Services Council report Professional education and training for library and information work reinforced this approach to curriculum development. Evident in both studies is the growing realisation that curriculum development must be based on an understanding of the environmental changes in the attempt to identify the new knowledge for inclusion in library education programmes.

Also evident from the review of the literature is the increasing realisation that the introduction and use of Information Technology (IT) in information work is undoubtedly a major factor in determining change in education programmes. For instance, studies by M. Brittain (1987): Curriculum development in information science to meet the needs of the information industry in the 1990's and M. Cook (1986) Guidelines on curriculum development in information technology for librarians, documentalists and archives illustrate this approach by discussing curriculum development in the light of the post industrial society characterised by information as a source for development. Library schools are urged to take a serious look at their curricula along these lines and assess their relevance to the technological environment in which they operate.

Other writers have been concerned with individual aspects of the curriculum. Pertinent in this context is an extended study by J.M. Griffiths and D.W. King (1986) New directions in library and
information science education who set forth new directions for the education of information personnel. They concentrated on changes in society and define the types of knowledge, skills and attitudes required of future graduates. They went on to identify the desirable level of implementation, thus providing the only study so far that has done so, since other studies limited themselves to discussing curriculum development in general terms.

One can observe that library professionals and educators alike are focussing attention on new trends in library practice to identify the opportunities of producing a personnel that is problem-solving, innovative and resourceful many come to look at the environment and society's needs as a means for determining the knowledge base for professional activities. The extent to which this can happen will depend on the ability of library schools to innovate and develop their curricula to incorporate and keep pace with changes occurring around them.

1.10.2 Studies on Curriculum Development in Developing Countries

The concept of curriculum development in library schools has grown to be of such importance that it has become a matter of international concern. However, in developing countries a review of the literature reveals this concern, though on a smaller scale than that noted in developed countries. There is little evidence of concern for curriculum development in these countries. The colloquium held in Australia in 1973 on Curriculum design in librarianship: an
international approach in which a number of recommendations as to the planning and design of library education curriculum were made, reflected increasing concern for the curriculum to be made locally relevant. However, one finds little evidence that this colloquium had any major impact on curriculum development in these countries or initiated a fundamental revision of library education philosophy as it should have done.

Another interesting study by M.M. Kashyup (1979) *Curriculum development and design process: a system approach*, considers curriculum development in the general educational context and proposes a system approach to curriculum development, explaining that curriculum is a system of interrelated tasks.

Library education in developing countries is still subject to controversy. There are those who argue that the library pattern is predetermined by colonial experiences. Lundu (1982) *Library education and training: at home or abroad* calls it a "continuation of the colonial legacy" arguing that curriculum development in relation to its environment is lacking in developing countries who tend to adhere to the inherited system. These arguments are still valid and raise some issues as to the need for curriculum development in respect of objectives, content and methods appropriate for the environment. Madkour (1984) *Education for librarianship in the Arab World: the problems and prospects* too rejects the wholesale import of education programmes and makes recommendations for home made solutions.
A number of writers have looked for practical solutions for improvement of library education in relation to the evolving environment of developing countries. For instance, Aman (1981) Education for library and information science in the Muslim world: a quest for enrichment argues that the type of accelerated development plans envisaged for developing countries require well trained information personnel able to move comfortably from one work environment to another. They find it difficult, however to escape the belief that change in the curricula can be achieved through imported ideas and methods suggesting that scholars trained in developed countries will bring back home new ideas and concepts to use in the classroom. This confirms that library education in developing countries cannot stand on its own. It has to rely on developed countries experiences. It will be facing the problem of originality and social relevance as long as local facilities and resources are not made fully available for curriculum development locally.

1.10.3 Curriculum Development in Arab Countries

There does not seem to be any extensive study that has dealt with this topic. The latter is incorporated in studies about library education in general. For instance, Sharif (1980) Library Education in Arab Countries, in reviewing the curricula in different Arab library schools complained that inexcusable weaknesses exist in their curricula. He recommended that changes were necessary in the light of
the new trends in library education suggesting more bias towards information sciences.

The need to improve library education programmes and develop the curricula was recognised almost immediately by most Arab countries. In 1981 a Symposium on Library Education in the Arab World, Riyadh, 7-12 November 1981, was held in Riyadh under the auspices of Alesco. It had a committee on "curriculum teaching methods and evaluation". This found that there is a real need for curriculum development. Library educators are aware that they must evaluate and plan their existing curricula to ensure their relevance to library practice now and make provision for future requirements. The committee revealed that library educators face problems related to:

a) how to determine future requirements; ✓
b) how to identify areas in which change is needed; ✓
c) how to implement changes. ✓

Members of the committee discussed these problems and set forth avenues that might be profitably followed by library schools for improvement of their education programmes.

The immediate outcome of this symposium is Tashkandi's Master's thesis (1984) Professional Education in Library Studies in the Kingdom of Saudi Arabia. This study was more than a survey of education programmes in Saudi Arabia in that it touched upon Arab countries and evolved recommendations for curriculum development and
improvement of library education that might be implemented in Arab countries in general. In relation to curriculum development the author suggested the introduction of more information technology related courses, he also stressed the importance of research programmes and practicum in library schools.

One curriculum experience (1986) at the Ecole des Science de l'Information l'Esi (Morocco) should be reported here for the attempt it made to use job analysis to identify areas of improvement in library education and develop the curriculum accordingly. This unique experience brought into Arab library schools the current approach to curriculum development and the new methodology of research into the field. It should stimulate research and provide innovative ideas for curriculum investigation all over the Arab World to prove social relevance of their library education programmes.

1.10.4 Studies on Curriculum Development in Algeria

The literature search did not reveal any study on curriculum development for library education in Algeria. The reason for this lack of documented literature in this area of study is that library education in Algeria is too young and lacks the major facilities to engage in research. Writing about library education in general Chafai (1984) La formation en matière de bibliothéconomie et de documentation en Algérie revealed that the philosophical approach to curriculum development in Algerian library schools should be re-examined in the light of local needs but the author did not evolve a
proper methodology for doing that. Boumarafi (1988) Library/information education in Algeria revealed that many weaknesses exist in the organisation of the curriculum. She also revealed that the lack of facilities in library schools deprived the education programmes of innovative courses and narrowed avenues for curriculum development. Like Chafai, Boumarafi did not suggest proper methods for reversing this trend.

In 1983 Algerian library schools took some interest in looking at their education programmes. The Institute of Oran then in the creation process held a three days workshop in November 1983. The workshop brought together professional educators from all over the country to discuss library education programmes. Guests of honour from England and France were convened to the workshop. Professor Havard-Williams (then Head of the Department of Library and Information Studies, Loughborough University), Miss Kelly (British Council Library in Algeria), Mr Merland (then Head of the National School of Library Studies, Villeurbanne, France) and Mrs Wolfterroine (then Head of Cancernet in CNRS, Paris). Members of the workshop addressed the issue of relevance of library education to practice, showing dissatisfaction with the present state of library education. The workshop, however, did not accomplish anything except bringing together a number of opinions that remain unacted upon.

In 1988 the same experience was repeated by the Institute of Constantine which sponsored a two day workshop. The latter came as an
outgrowth of the concern with the introduction of innovative knowledge in an attempt to develop the curriculum. Apart from leading to a magister in documentation which started in the same Institute in 1989 and which is still too new to permit evaluation. The workshop did not make any enrichment of library education or a change in its curriculum. Improvement however is needed. This study sets out to suggest what might be a suitable framework for change.

1.11 SUMMARY AND EVALUATION OF THE LITERATURE REVIEW

This brief review of a few studies to relate the content of the curricula to the practice of library and information work has revealed a number of trends and shortcomings. In the last twenty years or so there has been an unprecedented concern with curriculum development in library schools. This led to a wealth of literature where efforts were made to relate the content of the curriculum to the environment in which it operates and to the practice of librarianship within that environment. This concern indicates the willingness of library schools to keep up with the expanding market place and respond to the changing needs of society generated by new environmental conditions. Using such changes to determine the knowledge base needed for changing practices appears to provide a potential solution to curriculum development, in that writers draw attention to the analysis of the environment and job specifications to determine the knowledge-base required of future graduates. Theoretical studies, however, outweighed actual practice,
understandably for lack of expertise and resources to fully integrate these changes in the library schools curricula.

There is widespread agreement that IT should be integrated in the core curricula but the question of the specific knowledge required and the level of integration remain unresolved. Part of the problem is the complexity of IT and the lack of funds and expertise in library schools to engage in a proper shift in their curricula. Meanwhile most library educators adhere to the opinion of giving students a good grasp of IT as it applies to information work rather than confusing them with details about the technological advancements.

In developing countries, and certainly in Algeria, any change in the curricula should tie in with the level of the profession, the educational development and the general environment which may not be ready for introducing sophisticated ideas.

In summarising the foregoing the following points emerge:

1. There is an international difference in the amount of research in the area of curriculum development. Very little on curriculum development is done on the part of developing countries (not an unusual feature).
2. Theoretical discussions exceed by far actual attempts to put them into effect owing to lack of facilities (funds and faculty expertise).

3. Some studies are one sided over-stressing IT and thus painting a rather unrealistic picture of the future of libraries and the library profession, and neglecting the traditional foundations of librarianship which are still the reality in many parts of the world.

CONCLUSION
A survey of the literature reviewed leads to the conclusion that the curriculum has to be designed to produce the type of manpower required for present and future practice based on local conditions.

The pattern of library education in a country should emerge as part of its cultural, social, educational and economic development. There cannot be any common model curriculum applicable worldwide. International guidelines (Unesco and IFLA) can only help individual countries in the design of their own curricula with which to train and produce indigenous information staff. They do not provide a curriculum blueprint.
CHAPTER 2
GENERAL CHARACTERISTICS OF ALGERIA

2.1 GEOPHYSICAL FEATURES
The Democratic Republic of Algeria is situated in the North West of the African continent. It spreads over 2,353,000 km$^2$[1] of territory on to the Mediterranean Sea in the North. It shares borders with Morocco to the West, Tunisia to the East, Libya and Mauritania to the South East and Mali and Niger to the South. Geographically, the land can be divided into four regions: the Tell, the Atlases, the hauts plateaux and the Sahara Desert. The climate can be described as mediterranean with fairly high temperatures in summer and moderate to slightly cold weather in winter.

2.2 POPULATION
The population has been increasing rapidly at a rate of 3.2% annually [2]. The latest census for 1987 reported a total population of 22,971,558 [3].

The distribution of the population is very unbalanced with the major concentrations around the Universities and government departments in cities like Algiers (the national capital), Oran, Constantine, Annaba, Skikda and Blida. The population can be grouped into five ethno-linguistic groups; these are: the Arabs, the Chaouias, the Kabyles,
the Mozabites and the Touaregs. However this diversity does not cause any major social problems, as Islam is the official religion and widely practised by the masses and is a dominant factor in Algerian life. The Arabic language, traditions and customs are officially endorsed in the National Charter (Algeria's written Constitution). "Algeria our mother land, Islam our religion, Arabic our language" is the motto which strengthens Algeria's homogeneity and unity.

The total active population is estimated at 4.5 million [4] most of whom are civil servants. With the improvement of their education most of them are attracted to work in the big cities. This puts an increasing pressure on the facilities in urban areas and accentuates socio-economic problems including housing, unemployment and transport. Furthermore it widens the gap between the cities and remote areas. Seeking an immediate solution to such problems, the government embarked on the creation of new wilayates (governorates) around the small towns and villages to relieve the pressure on the big cities and create a balance between urban and rural developments. Education and industry were decentralised and more job opportunities and social services were provided to encourage settlement in the new wilayates for which master development plans were drawn up in accordance with the standards of big cities and the requirements of modern life.
2.3 HISTORY

Algeria was ruled by France for more than a century. In 1830 French troops arrived in Algeria to mark the beginning of a long conquest. In the early days of occupation, the traditional educational and judicial systems were replaced by the imported one with the idea of integrating Algeria into the French administration. In 1848 the new French constitution proclaimed Algeria a "Departement Francais d'outre-mer" directly administered from Paris through a governor general. Thus the total political and administrative assimilation of Algeria was achieved. This was reflected in, for instance, the Algerian educational system whose curriculum was redesigned to emphasise European culture using the French language as a medium of education. The social and cultural values of the native population were gradually replaced by imported values and models keeping the indigenous population in inferior positions. This caused resentment within the Muslim community leading to disturbances in various parts of the country. This uprising forced France to redefine the political status of Algeria in order "to legislate a form of home rule bill for Algeria that would permit the local population more control of its own affairs, recognise the distinctiveness of the Algerian personality by according new rights to Muslim culture, and determine the character of the ties between France and Algeria [5].

The French "mission civilatrice" continued to be opposed by the indigenous population partly because "a large native mass, its traditional, social structure fragmenting, the modern French system
unable to incorporate it, Algeria became available for radical political mobilization" [6]. In due course, the demand for Algeria's independence became stronger with the emergence of the National Liberation Front (FLN) in 1954 which engaged in a fierce war with France. The opposition to French presence in Algeria grew stronger from within and outside France. Negotiations for peace started in 1958 but it was not until March 1962 that a cease-fire was signed. Finally, French sovereignty over Algeria ended with the declaration of independence in July 1962.

The new state was in total chaos. Salinas described it in the following statement "Une Nation independante est née en 1962, ses débuts ne sont pas prometteurs, l'Algérie est privée de ses cadres par le départ des Européens. Une contradiction sociale le risque d'accroître ses difficultés, l'élite musulmane a une formation française, la masse une "culture arabophile" l'économie est au point mort. L'anarchie est complète" [7].

2.4 POLITICS AND SOCIAL CHANGES

The new Republic was challenged by many crises in all spheres, at all levels. The first government formed and led by Ben Bella did not last long. It was overthrown in 1965 in a bloodless coup bringing into power Houari Boumedienne. This new Government busied itself establishing the country's national and international politics. It set out:
- to maintain political stability and social order;
- to reinforce the democratic state through a well defined national policy;
- to recover the national identity through the enhancement of the Arabic language and Islamic culture and values;
- to embark on a development programme by regaining total control over the country's wealth with the aim of utilising its revenues to industrialise the country and upgrade the population's standards of living.

In pursuit of these objectives, the Government sought to establish strong links with the Arab World. It was also determined to gain an international reputation. Thus, in 1967 Algeria became a member of non-aligned countries and in 1969 it hosted the latter's general conference. In 1971 it joined OPEC and became very influential in formulating its marketing policies. In 1973 the late President Houari Boumedienne addressed a United Nations conference calling for a new economic order; he also played a key role in negotiating peace for Guinea-Bissau, with Portugal [8].

The Boumedienne' Government defined the country's general orientations in a written constitution in 1976 - the National Charter. In December 1978 Boumedienne died after an illness. A new Government came into power under the Presidency of Chadli Benjedid. The President was elected in 1979 for a five year term, as postulated by the National Charter and was re-elected in 1985, and again in 1989 for a third
term. The Benjedid Government reset priorities, where more attention was given to domestic policies over external ones. Under the slogan "for a better life" the Government endeavoured to raise the standards of living of the masses.

The rather rigid social policies of the previous Government were gradually replaced by moderate ones allowing for more freedom in every sector. Changes were evident in the encouragement of private enterprise, also the public sector was decentralised to improve management and reduce bureaucracy. In 1985 the National Charter of 1976 was submitted to the public for revision, amendments were proposed and approved by referendum which resulted in a new constitution produced in 1986. This was again subject to some alterations in 1989. Agricultural reforms took place with the aim of improving productivity and reducing the country's dependency on imported food. All in all, the social welfare of the masses was greatly improved, more services were created, more freedom was given to citizens in acquiring property and in expressing their views. Political power was decentralised and shared, in that citizens can now elect their representatives in a National Popular Assembly (APN) and ask for its dissolution if they feel they are ill represented. At present there are five major political structures, these are:

1. The Head of State elected every five years;
2. The FLN - the only legally recognised party;
3. The Council of Ministers;
4. The High Security Council - armed forces;
5. The National Popular Assembly (APN) whose members are elected, every five years, by the people.

Being representative of the people, the APN bridges the gap between the Government and the masses.

Algeria has recently deployed special efforts in improving its relationship with the neighbouring countries. It initiated the creation of "the Grand Maghreb Arabe" which would unify the five states of North Africa: Algeria, Libya, Mauritania, Morocco and Tunisia.

In order to achieve this goal the Benjedid's government displayed greater flexibility than his predecessor with regard to relations with these countries. Little by little Algeria resumed diplomatic relations with each one of them. In 1983 The Treaty of Fraternity and Coordination signed by Algeria and Tunisia provided a real framework for the Grand Maghreb Arabe. At present five commissions are studying areas of regional integration and cooperation. Among these are education, culture and training. There are greater implications for education programmes. Curriculum development is therefore bound to pay considerable attention to regional features. In library education curricula there must be scope for including regional information sources, and systems, comparative librarianship etc. to familiarise students in each country with the library and information scene of the
others. Areas for inclusion however, should be the result of serious investigations.

2.5 ECONOMIC DEVELOPMENT

Despite all the problems facing the new independent state, the Government was determined to make better lives for its citizens in the vacuum created by the war and by the massive departure of Europeans in 1962. The Government turned to economic plans aiming to improve the social welfare of the population and raise their living standards. Early economic plans concentrated on establishing an industrial base. This process has been accelerated by the oil boom of the 1970s and early 1980s. In 1971 Algeria recovered total economic independence by nationalising its hydrocarbon wealth i.e. oil and gas which were until then under French control. Algeria was then able to use the large revenues earned from these resources to establish a semi-industrial sector. The Government's ambitious plans to purchase Western technology and to establish local industries began to show signs of success. Many industrial sites sprang up throughout the whole country, examples of which are the:

- steel plant "Al-Hadjar" in Annaba
- petrochemical plant in Skikda
- textile plants in Bejaia and Tizi Ouzou
- lorry assembly plant in Rouiba
- tractor and agricultural equipment plant in Constantine
- gas liquefaction plant in Arzew
- cement and construction materials plant in Hamma-Bouziane
- refineries in the Sahara (near the oil and gas wells)
- paper factory at Reghaia
- electronics and household appliances factories in Bel-Abbes, Tizi-Ouzou and Blida.

In addition to these there are also many more small factories for manufacturing goods. The 1974/77 economic plan involved a total investment of 110 million Algerian Dinars (AD) of which 65.5 million went into industry. This, in turn, increased the GDP by 50%. The oil revenues have helped Algeria develop its industrial sector and pay back its debts, bringing its balance of trade to an equilibrium. However, the depressed oil market of the mid and late 1980s, had detrimental effects on the country's oil production which fell sharply from 373.3 million barrels in 1980 to 233.4 in 1984, bringing back the trade balance to a sizeable deficit [10]. Meanwhile the demographic growth rate did not show any significant decrease. This caused serious socio-economic problems and weighed most heavily on the country's decreasing revenues, resulting in:

1. A slow rate of technological transfer to carry on the industrialisation process;
2. A drastic reduction in the rate of foreign exchange earnings;
3. A drastic cut in the importation of consumer goods;
4. A prevalence of shortages in many sectors;
5. An endemic rate of development of the black market corrupting the citizens and challenging the Government's economic solutions, despite its protection and control.

While the Government has been handling this crisis with care, natural disasters, i.e. drought and locusts, added to the total economic problem putting more strain on the population by increasing the social ills mentioned above. Tensions rose to the level of rioting in many parts of the country, forcing a change in the political structure and early economic reforms.

In the face of the declining revenue earned from hydrocarbons the Government became aware of the danger of relying almost entirely on such a diminishing resource which counted for over 90% of the country's economy. The Government undertook a thorough review of many aspects of its economic strategy and has made significant adjustments to resources allocation according to new priorities and economic policies. The major changes are:

1. Less concentration on heavy industry
2. Priority was given to completing hundreds of partially executed projects over starting new ones
3. The policy of major use of external borrowing to raise investment levels was reversed
4. The social sectors - especially housing and urban infrastructure - as well as agriculture, were given high priority
5. A more positive view was taken of the private sector and efforts to encourage it were made [11].

The five year economic plan 1985/89 gave adequate consideration to the following sectors which are expected to grow. For instance:

- Water and energy by 10%
- Manufacturing industry by 9%
- Housing and public works by 9%
- Public services by 7.2% [12].

The GDP is also expected to grow at 6.5% annually [13]. These forecasts, however, are likely to be challenged by a further decline in hydrocarbon prices, the swift drop of the dollar and recent hostile climatic conditions. In spite of these difficulties the Government is determined to reach the 1989 economic targets.

In order to diversify the economy, and reduce dependency on food imports, huge new development programmes have been launched under the motto "After oil" aiming to develop the agricultural sector and to achieve food self-sufficiency, and even possibly the exporting of food. In pursuit of such goals an agricultural bank was established in 1982, Banque Agricole de Developpement Rural (BADR), to finance agricultural development projects, to provide credits for land owners for the purchase of equipment and fertilizers, so as to modernise agriculture and increase output. Agricultural marketing, which was in
the hands of the Office des Fruits et Legumes Algeriens (OFLA), was restructured giving birth to small marketing boards ensuring efficient distribution and management. Research was encouraged and undertaken to bring new life into the agricultural sector and improve the amount of arable land.

2.6 THE GROWTH OF EDUCATION

When the French arrived in Algeria, they found a traditional system of education whose curriculum was heavily slanted towards religious studies. For instance, students had to understand and memorise the sixty (60) chapters of the Koran before they could proceed any further. Education was widespread in rural and urban areas; it was provided at primary, secondary and tertiary levels. Studies could be undertaken in law, theology, mathematics, grammar, history, astronomy in institutions in Bejaia, Constantine and Thémenen [14]. Also the rate of literacy in Algeria was said to be as high as that of the metropolitan [15]. This situation, however was soon to be changed by the imported educational system. The traditional schools became inoperative as French schools increasingly took over and the curricula stressed European culture using the French language for teaching and learning. This education policy was meant to:

1. indoctrinate the young people by teaching only French culture and European civilisation

2. monopolise education and administration in the colony

3. strengthen the European community's social and political position.
Meanwhile the indigenous population was kept in an inferior position; for a highly educated population was seen as a threat to the colonial power. Education for the indigenous population was designed to produce cheap labour and clerks to serve the colonial administration, so much so that at independence 95% of the total population were illiterate. The Government perceived education as one of the most efficient tools with which to combat poverty and a prerequisite for economic and technological development and gave it considerable attention.

Tremendous efforts were deployed by education authorities to provide learning facilities for the masses; correspondence courses were created and evening classes too were soon in operation nationwide. Special attention was given to primary education in order to get as many children as possible into schools. Early economic plans invested generously in education. For instance, between 1973 and 1977 the Government contracted a loan of 105.5 million US dollars and asked for international assistance to develop and reform education programmes and provide more facilities. In 1978, 27% of the total budget was allocated to education [16]. As a result the number of children attending schools increased greatly. In 1988 the local media reported a total number of 6,700,000 pupils in about 2000 primary and secondary schools. These results are attributed to the Government's determination to make education the right of all children by introducing compulsory education and by combining primary and middle schools into the fundamental schools. The major feature of
fundamental schools is the elimination of the final examination at the end of the six (6) years primary schooling. This means that pupils are regularly assessed and they proceed to secondary education on successful completion of nine (9) years of fundamental education.

As far as higher education is concerned, Algeria inherited only one University and a few colleges with an elitist educational system patterned after the French one. The University of Algiers was created in 1909. In the 1970s and 1980s many factors came into play and worked in favour of the expansion of higher education. Amongst these are:

1. Demographic growth
2. Expansion of primary and secondary education
3. Recognition on the part of the people and the Government that education is a means for development and social mobility resulting from the oil boom
4. Development of employment opportunities for the highly educated
5. The need of specialised manpower for the mushrooming business and industrial sectors.

These are also the same factors that laid down the basis for the reform of higher education, initiated in 1971 with the aim of expanding higher education and making it responsive to its evolving environment. Texts regulating entrance requirements, determining course duration and degrees were published. The 1971 reform of higher education had six major objectives [7]:

41
1. To make the University into a training and problem-solving institution in order to accelerate the socio-economic development of the Nation

2. To expand the University's tasks beyond those of mainly training graduates

3. To revise programmes so that students will be trained to understand and rectify the problems of the Nation and also to implement recent developments in all fields of science and technology

4. To promote knowledge and use the national language (Arabic)

5. To modernise the methods of teaching in order to increase the output of students

6. To orient students towards interdisciplinary transfer in order to develop a sufficient number of specialists in fields where manpower is needed and to avoid an over production of professionals in fields of lesser needs.

These issues seem to have touched upon all problems faced by higher education in the country. Some are very pertinent to curriculum development i.e. 3, 4 and 5 are significant to this study for they bear some similarity to its findings, namely the need to determine the extent to which library education curricula is meeting the manpower needs in libraries, and information. In general, the results of this reform have been in many ways highly satisfactory but none has been more significant and far-reaching than the developments of the last 15 years or so. In brief these include:
1. The creation of more universities and university centres
2. The standardisation of entrance requirements, students' evaluation and degrees
3. The reorganisation of the academic and administrative structure
4. The review of the curricula to ensure their relevance to the students, to the market place and meet the objectives of the country's development plans
5. The emphasis on science and technological subjects to produce the manpower needed to accelerate the process of industrialisation
6. The inclusion of professional education i.e. library education in universities.

Consequently the number of students rose sharply. The following table bears testimony to the expansion of higher education in the 1980s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81</td>
<td>66,445</td>
</tr>
<tr>
<td>1981/82</td>
<td>72,590</td>
</tr>
<tr>
<td>1982/83</td>
<td>90,145</td>
</tr>
<tr>
<td>1983/84</td>
<td>97,000</td>
</tr>
<tr>
<td>1984/85</td>
<td>103,013</td>
</tr>
<tr>
<td>1985/86</td>
<td>119,665</td>
</tr>
<tr>
<td>1986/87</td>
<td>146,200</td>
</tr>
</tbody>
</table>

Source: Bulletin des statistiques Courantes (Algeria)

TABLE 1: STUDENTS INTAKE IN ALGERIA

43
This table represents only undergraduate students in addition there are 9,843 postgraduates reading mainly for masters in all sorts of subjects, including library science. A publication of the Ministry of Higher Education reports a total of 582 students in library science for the year 1985/86. Also in the constant drive to industrialise the country there has been an increase in the percentage of students studying science and technology as can be seen in the following table.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>19.4</td>
<td>19.5</td>
<td>18.9</td>
<td>21.5</td>
<td>26.0</td>
<td>31.3</td>
<td>34.4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>8.8</td>
<td>7.8</td>
<td>8.0</td>
<td>9.1</td>
<td>7.0</td>
<td>6.9</td>
<td>7.2</td>
</tr>
<tr>
<td>Medical Sciences</td>
<td>24.9</td>
<td>28.9</td>
<td>30.4</td>
<td>30.2</td>
<td>28.7</td>
<td>24.4</td>
<td>22.8</td>
</tr>
<tr>
<td>Economics &amp; Commerce</td>
<td>8.8</td>
<td>5.6</td>
<td>4.6</td>
<td>4.9</td>
<td>5.4</td>
<td>6.2</td>
<td>7.6</td>
</tr>
<tr>
<td>Law, Politics &amp; Journalisn</td>
<td>12.2</td>
<td>11.2</td>
<td>11.6</td>
<td>10.5</td>
<td>10.5</td>
<td>9.3</td>
<td>8.6</td>
</tr>
<tr>
<td>Biology and Earth Sciences</td>
<td>8.2</td>
<td>9.2</td>
<td>10.0</td>
<td>9.0</td>
<td>9.5</td>
<td>9.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Social Sciences, Literature, Languages</td>
<td>18.3</td>
<td>17.8</td>
<td>16.5</td>
<td>14.8</td>
<td>12.8</td>
<td>12.8</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Source: Bulletin des Statistiques Courantes (Algeria)

TABLE 2: STUDENTS DISTRIBUTION BY DISCIPLINE
There are 9471 Algerian lecturers and 1860 expatriates [20]. In order to maintain some cohesion throughout the country, higher education was decentralised and a number of universities were established as well as university centres. At present there are seven (7) universities of which two (2), for Science and Technology, are in Algiers and Oran and one for Islamic Studies in Constantine, and there are 22 university centres, as can be seen in the following map.

In addition to these, there are a number of technical colleges and special training institutes established and supported by ministries, government departments and industry in order to train staff for para-professional positions in various areas. There are 32 institutions
involved in such training, in 1985/86 a total of 40,568 [21] were being trained. These figures seem frightening if we try to match them with the higher education institutions (that is only universities and university centres) whose library holdings stood at 1,363,000 only in 1987 [22]. However, their usefulness lies in the fact that they are perhaps the best indication of the urgent need for library development, and, more fundamentally, of the amount of work required of institutes of library education to meet this development in terms of library staff who will provide the library services required by the nation.

SUMMARY

Apart from the need to produce the qualified manpower for all socio-economic sectors, the current expansion of education has also created an urgent need for supportive resources and library services. For the maintenance of accepted standards, libraries and information will have to improve where they exist and be provided where they are lacking. This can be achieved through library education programmes which produces the recruits who will then strive to establish and maintain information services to the education community, the public at large. It is on this basis that the country's educational development can be seen as a factor influenced by and having influence on library education.
REFERENCES


8. ALGERIA in Encyclopaedia of the Third World.


12. Op cit (Handbook of National ...).

14. ALGERIA in The International Encyclopaedia of Higher Education.


CHAPTER 3

INFORMATION INFRASTRUCTURE IN ALGERIA

3.1 HISTORICAL OVERVIEW

Many civilizations swept over Algeria for centuries: the Phoenicians, the Romans, the Vandals, the Byzantines, the Arabs, the Turks and the Europeans. Each of these civilizations has exercised its own influence on the country and its original inhabitants. Of all these, the Arab civilization is said to have been remarkable in spreading religious education and the Arabic language in the country. During the era known as the "Rise of Islam", Algeria witnessed a remarkable flourishing of knowledge [1]. Obviously during that period there must have been libraries to keep the recorded knowledge for future use. It is believed that libraries, in a form different from libraries today, existed then to stock books for the reading and teaching of the "Koran" and other subjects related to religious education. Unfortunately there is no documentary evidence to expand on this point.

During the period immediately preceding the French occupation, Algeria was under the Ottoman Empire which was a period of stagnation in terms of culture and knowledge. With the French occupation of Algeria in 1830, the country became a venue for European culture and written civilization. The first French settlers reported a
satisfactory cultural situation in the newly acquired colony which compares to some extent with the metropolitan in terms of learning institutions and literacy figures [2].

During the years of occupation most of the Arabic schools were closed and library collections either destroyed or confiscated and under the circumstances a new pattern of education inculcating European civilization emerged with libraries to support it. "Books, newspapers, and most of the print and non-print media were in French ... libraries acquired, stored and circulated the literature in French to strengthen the imported system of education [3].

As a result libraries began to develop and by 1954 it is reported that Algeria had about 238 library institutions [4] including a National Library, education libraries, public and special libraries of various sizes and importance. Undoubtedly the collections and mission of these libraries depended on the level of interest of the occupying power, in the upgrading of the intellect of the indigenous population. These libraries were generally stocked with donations from the National Library and other institutions. They were voluntarily staffed and funded by the local authorities. Generally speaking, they were merely a room in the town hall (for a municipal/public library), a classroom in the school (for a school library) etc where a small collection of books were shelved. To draw a general picture of librarianship in post-independent Algeria one can quote Bouayad (the Director of the National Library):
"a la date de l'indépendance, en 1962, à l'exception de quelques employés subalternes et leur nombre était insignifiant, il n'y avait parmi les Algériens ni éditeurs, ni imprimeurs, ni libraires. L'Algérie ne comptait qu'un seul bibliothécaire; à cela s'ajoutaient le manque d'équipement d'impression et la disparité de développement et d'infrastructures dans les secteurs de l'imprimerie et de la librairie entre les régions" [5].

3.2 ADVENT OF MODERN LIBRARY SYSTEM IN ALGERIA

From the above, it can be ascertained that libraries in a traditional sense (as collections of books) are not a new phenomenon in Algeria. It can also be argued that collections of books are not in themselves libraries nor do they give any indication of services to the users. To be called libraries collections of books and related materials must be organised in a systematic way for use, they must be made available to readers, they must be developed and regularly updated, staff and equipment must be available so that all types of users are assured the service they require of a library. If one accepts this view, it would be fair to maintain that the early libraries (for instance, those attached to mosques) in Algeria did not reach the expectation of the modern definition of a library.

In retrospect, it is fair to acknowledge that Algeria has inherited the French legacy of modern library institutions, launched with the establishment of the Bibliothèque Nationale d'Alger in 1835 which then endeavoured to activate the library movement in the country. In general, the progress has been slow and by and large deplorable. For little enthusiasm was shown in contributing to library development in general and in promoting library services to the public. One possible
explanation that may be advanced in respect of the lack of provision for libraries is the lack of public demand for them. For in the early years of the French occupation, the indigenous population opposed all sorts of changes introduced by the French, especially education and libraries which were seen as a threat to the existence of religious education and the library collections supporting it and for that matter also a means of depriving Algerians of their own identity.

The French settlers, on the other hand, feared that a good library system would eventually create a social, economic and political awareness among the indigenous population which would become a threat to their position in the country; all this has been interpreted as a lack of interest in promoting libraries and information.

This interpretation was still prevailing at independence. There was a lack of interest on the part of the authorities in library provision though for very different reasons. Furthermore, in the early 1960's, the need for libraries was too insignificant to measure for libraries were seen as being only of use to those who could read, and at that time the literacy figures were very discouraging. The economic and developmental situation of the country and the citizens' needs of housing, health and welfare combined to ensure that the use of libraries was minimal and, therefore, weakened the government's concern to improve library provision.
3.3 THE NATIONAL LIBRARY

The idea of a national library for Algeria was put forward, first in 1832, by the governor of the regency of Algiers "Gentry de Bussy" [6]. Although it was received with enthusiasm, it did not materialise until October 1835 when the "Bibliothèque Nationale d'Alger" was officially created. Algeria became the first Arab country to have a national library, establishing one even before Egypt. In 1956 [7], it became the legal depository for all Algerian publications by the French deposit law of 27 September 1956 [8]. This legal deposit law was amended in 1975 to accord with Algerian requirements [9]. The collection of the Bibliothèque Nationale has grown from an insignificant stock to its present size of some 1,000,000 volumes. It subscribes to about 3000 periodicals. Among the collections are valuable print and non-print materials. It stocks Arabic manuscripts and other very rare items on the history of Algeria. It holds a fine music library inherited from the Société des beaux arts d'Alger.

The Bibliothèque Nationale is well known for its outstanding Africana collection which contains unique items about North Africa dating from the eleventh, twelfth and thirteenth centuries [10], which attracts researchers from all over the world. The Bibliothèque Nationale issues a National Bibliography - the Bibliographie de l'Algerie - BDA since 1964. The BDA appears twice a year, it is described as being one of the best bibliographies produced by a developing country:
"The overall excellence of this publication makes it one of the most attractive, complete and efficient services from the Third World. With a few adjustments in indexing plus the addition of periodical articles and overseas publications about Algeria to its coverage, the Bibliographie de l'Algerie could become a model of excellence" [11].

Since its creation the Bibliothèque Nationale has moved to many buildings as it has grown. It finally moved to a new purpose built building with all modern facilities for storing and using library material in all its forms. The library is planning to double its collections, acquire modern equipment for its use and recruit more qualified staff to help readers and assist researchers.

With respect to the functions performed at present by the national library, it has been noticed that they are limited to:

a) acquisition and conservation;
b) circulation and reference;  
c) publication of a national bibliography.

Some major functions essential for Algerian librarianship have not yet been met. These are, for instance, providing leadership amongst the nation's libraries, serving as a coordinating agency for cooperative activities within and outside the country, engaging in continuing education programmes and taking responsibility for active publication programmes in librarianship, which is very much in need. From this one can safely say that the National Library functions are
very inefficient', considering its age as a National Library. For a National Library to be national in name and function, it has to be more active in these areas. This can be accomplished by a thorough revision of its present status and reissuing a comprehensive library legislation that governs the role and function of the National Library in a national framework as affected by modern developments in Algeria and worldwide.

At this juncture it is worth considering the suggested revision of the functions of a national library provided by (line in a recent publication [12]. These come in three categories:

A. Fundamental Functions:

1. The central collection of a nation's information media, built up by legal deposit and in other ways, and including duplicators for the purposes of loans and photocopies. Manuscripts of major national relevance and importance would also be included;

2. Central loan/photocopy collection of foreign literature, designed to satisfy a high proportion of the more vital and urgent document needs of the population efficiently and speedily;

3. Planning and coordination of interlibrary lending, as a supporting system to the duplicate national collection and the foreign collection;
4. Publication of the national bibliography, current and retrospective;

5. National bibliographic centre, planning and coordinating access to databases and the use of bibliographic information resources;

6. National repository, for the receipt, storage, preservation and supply, by loan or photocopy of items withdrawn from other libraries;

7. Exchange centre, national and international. Essential for duplicated and other surplus material.

B. 'By product' functions:

1. Publication of catalogues of large or especially important national libraries;

2. Exhibitions as desirable;

3. Research on library techniques as necessary;

4. Professional training for the staff of the national library itself, including perhaps some trainees who will be employed subsequently in other libraries;
5. Expertise in library techniques, which may be called upon as required by other libraries;

C. Other Possible Functions

1. Collection of information media relating to the country but issued elsewhere;

2. Books for the blind;

3. Collection of manuscripts other than those of national relevance and importance.

3.4 ACADEMIC LIBRARIES

Historically the first institution of higher education bearing the name of the University of Algiers was created officially in 1909 and certainly along with it the required library to support its teaching/learning activities. The library has been growing in size and services to its users to such an extent that it has had to build a new extension to accommodate its growing collections and readership. In 1962 it had some 600,000 volumes most of which were destroyed by a fire ignited by the Organization de l'Armee Secrete (L'OAS); a terrorist organisation opposed to Algeria's independence who expressed their opposition by barbaric acts including demolishing and setting fire to government departments and institutions of learning.
In 1964 an international committee known as Le Comité International pour la Reconstruction de la Bibliothèque, Universitaire d'Alger was set up to rebuild the library which officially reopened in 1968 [13]. The library grew steadily acquiring more books, a good number of periodicals and other library materials. The library had a total of eight qualified staff in 1981. The level and quality of staffing has improved since. In 1988 during the present writer's visit to the library, this had a total number of 74 of which 37 were qualified library personnel; 11 professionals and 26 sub-professionals. Its collection consists of around 950,000 books, 150,000 theses, and in the area of 4600 periodical titles of which 904 are current. The library had, in the same year, a total readership of 12,490 users.

Academic libraries mushroomed as higher education expanded. Algeria has many academic libraries which differ in size and quality of their collection, service, and facilities. There are seven major University libraries including two in science and technology and one in Islamic studies; in addition to this there are a number of libraries, in various stages of development, attached to the University centres, National Institutes and other colleges of higher education. The Repertoire des Bibliothèques Universitaires published in 1987, lists 72 academic libraries.

As Algerian universities expanded and the student population grew, decentralisation of library facilities became commonplace in the Algerian university because no one university has a purpose built
campus; as a result teaching departments are scattered all over the town where the university is located. Each department has its own library with its own collection and staff. Such decentralisation weakens the library services efficiency and creates too many gaps in the libraries' holdings in addition to duplication and wastage.

These deficiencies in library collections were recognised by the government in 1980 at a national conference [14]. This conference was the first attempt to discuss problems of university libraries nationwide. Apart from addressing itself to the urgent problems of these libraries (staff, collections, space, etc) the conference provided a unique opportunity for all university librarians to exchange their views on the problems they face in their individual libraries and make recommendations for eventual solutions. Discussions concentrated on problems related to collection building. Participants agreed that there were serious gaps in the library collections, they also showed general dissatisfaction in relation to services and strongly recommended that these trends must be reversed to enable libraries of higher institutions to contribute effectively to the provision of the "cadres" needed to upgrade the educational system and engage in research.

Participants at the conference made it clear that University libraries contribute very little to the improvement of education in the university, especially in science and technology. To meet the national objectives, library holdings should support education and
research programmes [15]. The validity of this statement becomes clear as one examines the library holdings and listens to students' and lecturers' complaints about the inadequacy of the collections and the lack of proper bibliographical services via which to get access to them. No one is under any illusion as to the inadequacy and inefficiency of University library services. It is difficult, however, to expect anything else of Algerian libraries with all the problems they encounter and which can be itemised as follows:

1. No library except Constantine and L'USTO* has a purpose built library designed in accordance with accepted standards for library buildings in terms of storage, reading, seating and other facilities.

2. Poor collections and lack of material urgently needed for study and research; for instance, no library has a short loan collection (except L'USTO) or a proper A/V, and reference sections.

3. No library has a well defined collection development policy. Weeding, discarding and stocktaking are almost unheard of in Algerian libraries and, as a result, it is very difficult to know the state of library collections in terms of quantity and quality; however, they are certainly unsatisfactory.

* Universite des Sciences et de la Technologie d'Oran
4. No library issues a proper library guide to its users, they do not arrange guided tours for first year undergraduates, there is no information service, the services are very primitive, and inefficient, good catalogues and photocopying are a luxury that almost no library can afford; finally, interlibrary loans are not widely practiced as there is no definite policy for this.

5. The most distressing aspect of University library provision is the quality and quantity of their staff. For instance, some major university libraries are still run by non-professionals.

What is even more distressing is that libraries do very little to redress this deplorable situation. M. Line attributes this to the lack of maturity of these libraries. In a short visit to the major libraries in Algeria in 1983 he noticed that they are in a sense competing with one another, they are not likely to cooperate easily and willingly. He even sensed a certain amount of institutional jealousy [16]. It seems that Professor Line has found the right way of describing a situation which is jeopardizing the profession as a result of mistrust exhibited in the University library's "milieu". It is hoped that University librarians find a better ground of understanding each others needs and collectively meeting them enabling their individual users to make extensive use of what exists in all libraries all over the country.
In the light of this situation inter-library loans - ILL - is one of the major forms of cooperation. Apart from reducing the amount of unnecessary duplication, wastage and expenditure it maximises the use of national information sources and systems. To accomplish this a good ILL formulated under appropriate legislation in which each library has to understand that it should concentrate on acquiring what is highly demanded and heavily used and that marginal needs can be economically catered for by ILL.

In 1986 the Ministry of Higher Education issued and circulated a number of special regulations about the exchange of library materials amongst university libraries. These regulations have emphasised the importance of ILL and directed the attention of libraries to the fact that they must cooperate in this area to make better use of library materials at national level. As a result some steps in maximising the use of such materials have been taken by University libraries in that a Union Catalogue of periodical holdings and that of theses are prepared to serve as a basis for ILL. In 1987 a report of the Comite Pedagogique National de Documentation revealed the limited scope of cooperative and coordinated activities between University libraries and made recommendations towards improvement through a good ILL system.

In 1988 a DSB dissertation by Ramoul "Reflexion sur un systeme de pret entre les bibliothèques et centres de documentation en Algerie" (PIB) enforced this idea and provided a framework for the formulation
of a comprehensive interlending policy nationwide. This study is outstanding for its pioneering efforts and because it is inspired by the two best known Inter Library systems i.e. the British Library Lending Division (BLLD) and Centre National de Pret (CNP) of Paris. The writer made 16 recommendations concerning the establishment and functioning of the system. It is unfortunate to note that neither the Ministry's regulations nor Ramoul's recommendations are fully implemented. The reason for this can only be attributed to the higher degree of mistrust that exists between libraries. This alone overrules any kind of cooperation between them.

Problems of University libraries are not ignored by the authorities for they have been the subject of discussion at the 1980 national conference and re-examined in 1987 by the Comité Pedagogique National de Documentation and in both events the members insisted on the provision of highly qualified staff to tackle these problems and bring about the appropriate solutions. They strongly supported cooperative efforts and coordinated actions on the part of all university libraries to reach this objective. Most important, they emphasised that such action should be undertaken in a national framework and the development of university libraries should tie up with the national development policy. The most important result of the 1980 conference was the request for a postgraduate course, to produce highly qualified staff to take charge of the development of university libraries. This, with other events, has certainly helped to give greater prominence to library education in the country and
set things in motion for the establishment of the postgraduate course of Constantine in 1982.

Boumarafi examined the development of University libraries in Algeria [17] and made recommendations for their development. The most important one relates to acquisition policy whereby the author recommended that an acquisition policy should be designed to improve the libraries' individual collections and that very expensive books should be purchased only if they are going to be used by more than one library or are essential to a significant research programme within the host university.

Saying that "Universities are as good as their libraries" indicates the intimate relation between the university development programme and that of its library. The latter is expected to promote the educational and research function of the university. Its development programme should be determined to a large extent by the education and research programme of the university. Gelfand outlines four functions of a university library in a developing system. It should provide:

"Firstly, for the foundation of an effective service, a standard of library service objectives, component staff with authority as well as responsibility for developing the library service, a plan of organisation and adequate financial and administrative support;

Secondly for the physical facilities, library resources and services which will be required;
Thirdly, for continuous maintenance and development, and for cooperation and coordination of library services within the university and with libraries and other information agencies outside;

Finally, it should provide for periodic evaluation of services to ensure that the library is fulfilling its mission effectively" [18].

Considering the situation of Algerian university libraries in the light of the above requirements one realises that they have a long way to go to meet them. At present most, if not all, university libraries in the country are poorly managed, understocked and they contribute very little to both student and staff academic activities, they have no clearly defined objectives. The failure of a good university library system is attributed to many factors of which the most telling one is the nature of the educational system based on prescribed textbooks, chalk-and-talk and notes memorisation to pass examinations. As a result libraries are poorly attended for reading for self-improvement and thus very poorly attended out of examination periods. This has led perhaps to the belief that there is no need for better library services since they may remain poorly used. Another factor which handicaps the development of university libraries is the lack of highly qualified staff. The 1980 Unesco study revealed that these libraries had only 15% [19] of the number of qualified staff required at that time. This is not only because library education then could not meet the demands, but because recruitment is not controlled in that some library positions, even at a very high level, are not obtained on merit but through other considerations. As a
result some major university libraries are run by non-qualified staff. Obviously, these have no commitment to their job. Firstly because they are not interested in it and secondly because they have no knowledge of what it involves. This situation has affected libraries negatively and in most cases confined them to being storehouses and reading rooms.

3.5 PUBLIC LIBRARIES

Public library services are provided through municipal libraries and cultural centres. Apart from the Bibliothèque Nationale which performs the role of the major public and research library for Algiers and the public library of Oran known as the Bibliothèque Regionale, there is no properly organised public library network. Instead what one may see mainly in major cities, is a small collection of books in a room attached to the town hall and called the municipal library. As the country has developed, the illiteracy figures have dropped and society has evolved, it has become clear that the public library system in Algeria is in need of better organisation in order that it can guarantee services to the general public. The government has acknowledged this need and embarked on a series of actions aimed at improving the situation. Evidence of this is seen in the creation of L'office des bibliothèques and La Sous direction de la lecture publique, both under the patronage of the Ministry of Culture. The aim is to support the development of public libraries throughout the country and encourage reading habits among the public at large. Also the institution of La foire
internationales du livre and La semaine culturelle where there is a rush to purchase books by the general public, indicate the willingness of the government to provide public reading facilities. Public libraries can only develop and mushroom if there is firm commitment of the government for their provision nationwide.

To realise this objective, the 1970-73 economic plan made provision for the creation of 1000 public libraries [20]; one within each town to support the literacy campaign undertaken at independence. Furthermore the idea of the 1000 libraries which came to be known as Le projet des 1000 bibliothèques was endorsed in 1979 by the Third Congress of the Party [21] whose members expressed their deep concern about the establishment of a public library at least within each town of a reasonable size. The landmark in the government's efforts to develop public libraries was the declaration of the National Charter - Algeria's constitution - that a book policy should be organised to respond to the needs of students, researchers, workers and the layman. It emphasises the need for:

"Un réseau très fourni de bibliothèques communales et de quartiers des moyens audio-visuels de toutes sortes seront a même de diffuser une culture attrayante de qualité" [22].

Recently the revision of the constitution in 1989 made it clear that information is the right of every citizen. From the foregoing it is obvious that the government is endeavouring to establish and maintain a good public library network, it is equally obvious that this should
have a profound effect on libraries, but a closer look at the pattern of progress in the field reveals the contrary. There are many reasons for this i.e. the lack of qualified public librarians to commit themselves to the development and organisation of the network, there is also less close involvement of the government with control of implementation of its policies. This tendency can probably be explained by the fact that there is no highly qualified librarian amongst the decision makers, nor is there a strong professional voice to spell out the needs and requirements of public librarians. So all the library activities are carried out on an ad-hoc basis and general assumptions, results are therefore vain because public libraries find it hard to meet the basic needs of the community they serve i.e. proper reading materials and space for information and recreation.

Although the government has repeatedly stated that public libraries shall be established in every town and although many local authorities have organised reading rooms with book collections, there has been no real commitment as to proper organisation of the library in terms of staff, funds, collection and space. In order for public libraries to make the necessary impact on the community they serve, they need to stimulate thinking about their role within their environment, give themselves a purpose and a sense of duty towards their community and strive towards their goals "through public relations work ... as a significant group of institutions for the cultural, economical and technical future of the society, they have the task to use their influence to achieve the approval of the
necessary means for their work from the appropriate funding sources" [23]. These funding sources, when well allocated and wisely spent, will eventually lead to a well organised public library service providing that such organisation is carried out by staff who are well educated and professionally competent.

The Unesco public library manifesto defines the public library as a:

"practical demonstration of democracy's faith in universal education as a continuing and life long process in the appreciation of the achievement of humanity in knowledge and culture ... it is the principal means whereby the record of man's thoughts and ideas, and expression of his creative imagination are made freely available to all" [24].

No one disputes the fact that these requirements are met by public libraries in developed countries where they are viewed as living forces for education, culture, information and leisure. They are playing a major role in modern society by fulfilling these functions. In Algeria, a public library is just a reading room with a few shelves of books lying idle. Furthermore most citizens are unaware of the existence of public libraries.

To redress this situation the prime objective of a public library in Algeria should be to capture and educate potential users to its purpose, its importance in their everyday life if they are to benefit fully from the democratic policies of the government. To achieve this the library has:
"to contribute to sustaining the quality of life in all its aspects - educational, economic, scientific and cultural - and promote the concept of a democratic society in which equal opportunity exists for all to develop into true citizens with whole and balanced personalities leading to an increase in the sum total of man's happiness and awareness of himself, his fellow men and his environment. This contribution is effective through the public libraries as a multi-purpose information, education culture and leisure agency. It should make freely available the records of man's experience in the form of books and related materials to all who may ask, and thus promote and foster the free flow of information and ideas" [25]
(Underlined word added)

Although these objectives may seem too demanding for the potentialities of today's Algerian public libraries, it is important that they are studied and attempted when facilities permit.

3.6 SCHOOL LIBRARIES

The government decisions of the early 1960's aiming to provide education for all children, has resulted in a considerable increase in the number of schools and pupils attending them (Chapter 2). In the 1970's and 1980's the change in educational orientations with the introduction of the "fundamental school" has resulted in a change of content, structure and scope of the school curricula, emphasising learning by discovering rather than memorising. This necessitates efficient educational facilities i.e. a good library, to enable children to grow as citizens fully aware of their role in a changing environment which will affect their education and work.

In theory this gives the impression that school libraries are developing in support of the new educational growth, unfortunately
practice shows the contrary. For, in general, the concept of school libraries as resource centres has not caught the attention of the education authorities. This is evident in the lamentation of Bouderbane who in a review of the school library system in Constantine, concluded that:

"the deplorable organisation of our school libraries (where they exist), the total absence of a proper school library network, the lack of qualified school librarians, the inadequate collection (to support pupils-centred education), the lack of space and equipment make the school library service alarming" [26].

The author made a number of recommendations of which the most important is the establishment of a Direction des bibliothèque scolaire [27] within the Ministry of National Education to take charge of the development of school libraries in the country. Serious thought should be given to this proposition for it is important to realise that

"the school library is the most suitable place to make children acquainted with (the use of library resources and the tracing of information) and in a way make later research methodically easier" [28].

The major importance of the school library is to support the school curriculum and to enlighten pupils on their future roles as mature and responsible citizens who will embark on the future developments of their country, bearing in mind that
"the impression which a pupil obtains from good or poor service of his or her library during younger years and which can become stronger during the course of life, will doubtless be a determining factor in forming later attitudes towards libraries and librarianship in general" [29].

To manage this requires a group of qualified staff aware of the importance of reading for pupils at a formative age. It is essential that school libraries should be developed in the modern sense to satisfy the study and curiosity needs of pupils. Besides it is the only way of developing the reading habit as a social and cultural habit in a society like the Algerian one where books play little, if any, role.

3.7 SPECIAL LIBRARIES/DOCUMENTATION CENTRES

Special libraries, better known in Algeria as documentation centres, are mainly found in research institutes, government departments, ministries, industrial and commercial enterprises, foreign embassies etc. The majority of these centres are located in Algiers where most of these institutions are based. So the existence of these documentation centres is not well known outside their host organisation because they have little impact on research and development (R and D). Their collections are necessarily specialised in content and vary in size and quality with funding and expertise. The most important documentation centres in the country are: the Centre National de Documentation Economique et Sociale (CNDES) established in 1971 with the help of Unesco. The centre provides information on economic and social development of the country and
issues statistical data. The Documentation Centre of the Chamber of Commerce collects and disseminates information on commerce and industry.

There are an important number of other documentation centres attached to research institutes such as the Institut Pasteur well known for its research collaboration with the Institut Pasteur de Paris. The various Ministries host comparatively good libraries such as, for instance, the Ministry of Defence and that of Energy. The Arab Union of Iron and Steel Organisation put forward plans for the establishment of a regional documentation centre in Algeria [29], for the acquisition, analysis and dissemination of information in metallurgy and related material. It is most likely that the centre will be established within the steel plant of Annaba: the steel capital of Algeria and indeed of the Arab World. Plans are well underway for the establishment of a Centre National de Documentation pedagogique for educational research and development within the Ministry of Higher Education.

With the government's emphasis on science and technology, business and industry, special libraries will become an important factor for the attainment of successful results in these sectors of development. Most of these libraries will have not only to serve the needs of their special community but also actively participate in R and D by stocking relevant and up to date information, providing prompt access to it, devising efficient means of disseminating it nationwide, and
extending their services at regional and international level. A well
organised and properly utilised, special libraries represent
instruments of technological development and guarantee prosperous
research activities.

With the socio-economic changes of the country, the educational
development and other environmental circumstances, Algerians are
becoming more and more dependent on the use of appropriate
information to be found in print and non-print sources. Such data is
frequently not available to them for purchase, instead they will have
to turn to a library to fulfil the resulting information needs. The
biggest challenge for Algerian libraries and information centres is
to take the responsibility to look for ways and means in order to
satisfy their users needs; whether these means are within or outside
the country. Here comes the importance of a good inter-library loan
and proper cooperative systems designed to operate efficiently within
and outside the country.

3.8 BOOK INDUSTRY

In 1980 the major national newspaper, El Moudjahid reported that 95%
of the books in the national market are imported. This leads to the
conclusion that in general the book industry in Algeria is very poor.
A Unesco publication by Bouayed [31] has tried to trace all possible
publishing and printing houses in the country. Amongst the most
important ones are state owned, the SNED renamed ENAL, the OPU and
the IPN.
The Societe Nationale d'Edition et de Diffusion or SNED was created in 1966 to be nationally responsible for and monopolise printing, publishing, importing and exporting books and related materials then became involved in importing and commercialising stationery for schools and offices. Thus it became a profit making organisation and this dominated its activities inasmuch that publishing has been greatly affected and dropped from 100 titles in 1974 to 18 titles in 1980 [32]. From 1966 to 1980 the SNED total output was only 475 [33] titles including publications in both the Arabic and French languages. Such an output is convincing enough, as regards to the inefficiency of the SNED, to warrant a total reorganisation. It was restructured and decentralised to improve control and management and, in due course, it was renamed Entreprise Nationale Algerienne du Livre or ENAL.

In November 1973 the Office des Publications Universitaires - OPU was created with the aim to "edit, print, publish, translate and distribute the pedagogical media, i.e. handouts, manuals, journals, books and other materials for the University community" [34]. In 1977 the OPU imported 225,349 volumes in French and Arabic; between 1975 and 1980 it published 233 titles in both languages [35] and about 143,780 volumes with the great majority in science and technology in 1980. In the same year the total student population was 66,445, not including lecturers. This comes to less than three books for each student. The accepted ratio of books to students is over 100 books.
The third important publishing house is the Institut Pedagogique National IPN; the creation of the IPN is perhaps a conscious result of the education system based on prescribed textbooks to support the national curricula in schools. During the school year 1980-81 the IPN published and distributed 14,948,100 volumes [36]. Books are supplied to pupils at a symbolic price.

In addition to these major publishing houses, there are some 48 publishing [37] and printing houses, public and private. The publishing industry in Algeria can be described as very unsatisfactory owing to many factors. For instance "the publishing and printing activities have never been the result of the book market investigation based on habits and motivations for reading" [38]. The book industry is very much criticised for being unorganised and poorly managed; evidence of this is seen in the lack of marketing infrastructure resulting in a very unsatisfactory book market where "on vend le livre, comme on vend du savon ou du sucre" [39].

As far as publishing in librarianship is concerned, it is very distressing to note that at present there is no specialised journal. Instead scattered articles about the Algerian library situation can be traced in local newspapers, generally written by non-librarians and in some overseas library journals. The lack of published material has been one of the major limitations of this study. Since there is now considerable emphasis on the social relevance of the education programme, and the government is striving towards Arabization of
education and Algerianization of staff, there is a need for more books in Arabic, conveying examples with which students are familiar and with which they can identify. This is very important in all education areas and maybe more so in librarianship where the lack of textbooks describing the Algerian library situation is the major handicap when attempting to bring to students' attention the problems of libraries and information in the search for solutions.

Turning back to the problem of the lack of a professional journal, it is worth noting that, on many occasions, the wish to create a library journal or at least a newsletter has been expressed by professionals. More important, in 1983 at the Oran Workshop, the proposal was again put forward by participants. Dr A Bererhi [40], then Minister of Higher Education, welcomed the proposal at the closing session, but for some unknown reasons nothing happened in practice. One suspects that librarianship being a pioneering discipline in Algeria there are no professionals active in the field of publication and very few, if any, have the aptitude for writing and/or translating books and papers. Furthermore, the curriculum content does not bring to young graduates attention the local problems to attempt solutions through publishing.

In general publishing in Algeria encounters many problems such as a lack of expertise and modern equipment, problems of technical know-how, and difficulties in obtaining adequate maintenance and spare parts. Both public and private publishing and printing houses alike
face these problems. The paper industry is poor and the importation of equipment, paper and ink are subject to tremendous bureaucratic problems. In spite of all the efforts which are being made these problems are unlikely to be solved in the immediate future unless the government and the publishers look to the future with well thought out plans to improve the quality of education and upgrade the intellectual situation of the nation through relevant library materials such as the book, the journal and the report and non-print media.

3.9 NEW DEVELOPMENTS: IMPLICATION FOR THE INFORMATION INFRASTRUCTURE

One of the major yardsticks by which development of an information infrastructure of a country is nowadays measured, is its communication and telecommunication systems. Furthermore "the extent of the sophistication of a nation's communication system is considered an important index to its development" [41]. It is corollary that the communication system of a country determines its development and that of its library system and information infrastructure in general. In that information in its primary and secondary form can circulate efficiently only if means for that i.e. roads, post offices, telephones, telex, satellites, etc are efficient and reliable.

In Algeria the development of these means of communication and transport was given a great deal of attention in national development
plans. In 1987 Algeria had about 82,000 km of roads [42]. The economic plan 1984-89 [43] invested AD 10 billion to modernise the road system and expand it to reach the most remote areas. Now roads are made suitable and faster through a well developed network of motorways. The major achievement in this field is the Transsaharienne linking Algeria to Niger through the Sahara desert. Roads are well maintained and continue to improve. Now Algeria is connected to Libya, Morocco and Tunisia by land (in addition to air and sea), therefore coaches and railways are in use to transport passengers and merchandise in both directions. Port and maritime transport is also improving with five major international ports linking Algeria to many parts of the world.

An efficient air transport network with over 35 airports links Algeria to most parts of the world via Air Algerie. Inter Air Service provides domestic flights which have operated efficiently since 1984, after Air Algeria was reorganised.

There are six daily papers, including two evening ones, which started in 1985; one in French, which even has a page in the English language, "Horizon 2000" and one in Arabic "El Massa" (the evening). All papers have good readership. There are also three weeklies; one carrying sports news "El Hadef" (the goal). Algerians are also kept informed about the outside world by the foreign press of which "Le Monde" is the most popular owing to ease of use in respect of language.
Radio and television are very popular in carrying information to the masses. The Radiodiffusion and Television Algerienne or RTA is, in fact, playing a major role in support of education programmes and in informing the general population on the economic, social, political and health situation of the country and provides advice on problems related to these. This can be regarded as the best way to inform those who cannot read. The RTA was created in 1965 and by 1985 about 4.8 million homes received radio programmes in Arabic and French and about 1,557,000 had television receivers [44]. The RTA is considered the "talking library" of the masses, and it is of special importance for those who cannot read.

Furthermore the telecommunication system is being given special attention by spending heavily to improve and develop the telephone, telex and telegraphy networks. The present economic plan intends to reach a target of 1,050,000 lines and purchase 7000 telex machines [45]. The telephone system, although far from perfect, operates quite efficiently locally and internationally. Recently the introduction of a code area system has made it much easier to contact many places within and outside Algeria at a reasonable rate and within reasonable time.

In its increasing drive to modernise the country the government launched many plans to boost the use of information technology - IT. In 1969 the Commissariat National a l'Informatique - CNI and the
Centre d'Etudes et de Recherches en Informatique - CERI were established. Within a decade the CERI produced 150 engineers, 300 analysts and 450 programmers [46] to take charge of computerisation in various sectors.

As more qualified staff and equipment are made available more economic and socio-cultural sectors are managed and run using computers. Computer literacy is actively undertaken: a few selective high schools have been used to launch a pilot scheme for the application of computers in teaching/learning. This seems to be well received by pupils and is proving challenging to them as they are growing up in a more favourable economic and technological environment compared to the early 1960's. In 1986 a module of "Introduction a l'Informatique" was introduced in high schools and universities to expand computer literacy and raise IT awareness and its use in education.

Algeria continued to strive to develop its telecommunications in order to keep abreast with the developments that are going on around the world. It transmitted its first television programme via the Arab satellite - ARABSAT - in 1985. This satellite is now regularly used to exchange cultural and other programmes between Algeria and all Arab countries, thus fostering understanding amongst them.

Finally two other important events worth mentioning here are the International Colloquium on Telecommunications entitled "Les
Nouvelles technologies de communication" held in Algiers in 1985 [47] and bringing together experts in the field from all over the world including the USA, UK and USSR, the leading countries in the field, to discuss new developments in Information Technology (IT). A direct consequence of this colloquium was the two day workshop on IT held by the Institute of Library Studies of Constantine University where library educators and professionals and computer specialists from all over the country, as well as Tunisia and Morocco, met to discuss the importance of IT and its integration within the library schools' curricula to match developments in the country and keep in line with world's current trends in the field of library education.

From the foregoing it is certain that telecommunications in Algeria hold greater potentialities for libraries and information in the circulation of knowledge and the flow of information within and outside the country. The future of library education is also envisaged as being directly affected by such developments insofar as curriculum development is concerned, and its shift towards information technology. Used for the benefit of libraries, telecommunications could result in a more efficient information infrastructure, an effective inter-library loan system, the development of the publishing industry, improved book distribution and the expansion of research by supplying information to researchers. It could also help to improve relations with the external world by providing timely and accurate information to whoever seeks to be kept aware in any area of knowledge and research.
just to mention some of the advantages of using IT in the processing and disseminating of information. Unfortunately libraries and library schools are not seen by the government as direct users of these new technologies so much so that only very few libraries venture in online search. While all major libraries have their direct telephone lines no one except the National Library has its own telex installation, some have access to the host institution's telex where available. What libraries need is a high calibre of staff politically influential to put forward a sound plan for the introduction of IT for information handling in libraries and information institutions and to argue the case for generous funding to be spent in training staff and acquiring equipment to translate this wish into reality.

3.10 FACTORS AFFECTING THE DEVELOPMENT OF LIBRARIES IN ALGERIA

This cursory study of the general situation of libraries and information in Algeria has revealed many weaknesses in these areas. The most obvious lack of development can be noted in library services to the masses, especially school and public libraries. What seems to be lacking is the perception that the library is an education, information, cultural and leisure agency, vital to every individual in society, regardless of sex, age and creed. Without such perception it is understandable that libraries rank low. Although this account gives the impression that there is a good deal of willingness to reverse this trend, in practice efforts to do so came to nothing mainly because they
were unplanned, uncoordinated, fragmented and sometimes even conflicting.

The recurrent factors that lead to and/or hinder the development of libraries are reiterated over the years and their analysis can be found in a wealth of literature. It is, therefore, pointless to repeat them here, instead attention will be directed to those factors that are peculiar to Algeria and which have some bearing on its library system. In the absence of a proper survey, it is difficult to ascertain exactly the conditions of libraries and information concerning their present situation. From what preceded, however, it is not so difficult to note that library services have encountered many challenges, some of which are seen by the present writer as being double sided blades and can have dual effect on libraries in that while they hinder their development, they may be used as pointers for the former, such as for instance:

1. The growth of education.

2. The development of the curricula at various levels bringing about new learning/teaching methods.

3. The attempt to shift from agrarian to technological economy.

4. The impact of worldwide technological developments and information explosions which altered information needs and generated new ones.
5. The social mobility meant that more people flooding to the cities need more information to cope with the changes affecting their lives.

Other reasons such as:


7. People are unconcerned with information, they also consider libraries as a place for the elite. This demonstrates that Algerians are still ignorant of the social worth of libraries.

8. A disturbing trend which characterises librarianship in Algeria is the lack of unity amongst professionals and educators as well as amongst themselves. All seem to overlook the fact that both professional and educational development stem from unity. Such a unity it seen in coordinated and cooperative professional activities, the lack of which leads to overall failure of the profession and education to set right their common as well as individual objectives and integrate them into the national ones in search for status and recognition.

9. The lack of a code of conduct amongst professionals and educators. These exhibit neither interest in nor respect for the users which in turn deprives the profession of any form of respect, authority and freedom in comparison with other professions.
10. Personal interest overrides anyone of social responsibility towards the community. Viewed from this perspective it is not surprising to see that the profession is failing to get any social recognition. For this to be accomplished, librarians need to show primary commitment to the user and to society at large.

11. Another of the root problems of libraries is the lack of integrated planning and the solution to it lies in the understanding on the part of planners of the socio-economic, cultural and educational value of libraries and fully integrate them when formulating the country's development policies in those areas. One aspect of this integration can be seen in the resources allocated to them from the national budget.

The basic assumption that underlies any development programme, for example in the field of libraries and information, should be: is there a need for libraries? Any answer to this derives from the values and aspirations of political economic and cultural systems in which these services are conceived. In Algeria they are an expression of the authorities' and community's attitudes to librarianship.

In general these are not so positive to warrant a development programme for libraries and information on the same scale as for instance education and industry. In emphasising the importance of planning for the development of libraries, Perua quite rightly states that
"without planning, most library systems will remain poorly organised and equipped; without a clear definition of their cultural, educational, social and economic roles they will continue to be unenterprising and unable to win the political support and obtain the resources that are essential to them if they are to develop" [48].

In Algeria it seems even more important to realise that proper planning of libraries and information development is the key to that development and understand that integrated planning is practically feasible and can be achieved through coordinated activities between libraries and library schools and between these and other sectors of the economy and education. At present, the provision of libraries is badly neglected in national planning. This may be merely an oversight or it may be deliberate and stem from the misconception that libraries, in other words information, have nothing to do with national development objectives. Perhaps a poor projection of library services by librarians themselves or perhaps a general lack of interest in libraries are to blame. These are amongst the major factors that seem to be having a detrimental effect on and retarding the development of libraries.

Meanwhile, in the last twenty years or so many contributory factors have emerged to stimulate library development. These are:

1. The creation of the "direction des bibliothèques et de la lecture publique" and in the field of university libraries the creation of the "Commission nationale des bibliothèques universitaires CNEB". These two events are very significant and imply a better and more homogeneous library and information policy;
2. The educational growth and reforms at all levels came along with changes in curricula and teaching methods emphasising individual learning. Thus, libraries are bound to develop to assume their roles in support of new educational methods and where comprehensive, and up to date materials, as well as better services, are necessary for the achievement of new reform policies in education and research.

3. The "Carte Universitaire" which redistributed higher education has resulted in the creation of new libraries to support the newly created university centres scattered all over the country;

4. The introduction, at university level, of library education means that more qualified staff are made available. These are better prepared to tackle and eventually solve problems of libraries. Of course one should not be under the illusion that formal library education alone makes one a good librarian. There are some other basic refinements which complement formal training, such as the right attitude to the profession, some self-sacrifice on the part of librarians, dynamism and good public relations, will make some librarians better than others.

5. The Conference Nationale for University Libraries, the Workshops of Oran in 1983, and that of Constantine in 1987 and the Comite Pedagogique National de Documentation established in 1987 in which positive and forward looking recommendations have been
made and could have greater implications for the development of libraries, especially those attached to higher education.

6. A favourable economic environment resulting in a growth of the GNP and social mobility of a large number of citizens who will be confronted by the need to know their rights in many areas i.e. legal, social security, right of tenancy, consumer rights etc. It follows that libraries and information institutions are needed to aid citizens in their quest for information to fulfil their rights as mature and well informed citizens.

7. The National Charter stating and recognising that information is a human right and access to it is the right of every Algerian. As more people become aware of the implications of this statement they will turn to libraries and information and, in this situation, libraries, especially the public ones, will flourish.

8. The most recent event and certainly the most important one in Algerian librarianship, is the newly created Library Association (March 1989) providing the profession and the education with a formal representative to speak out for libraries and information and engage in all sorts of activities to develop them.

This succession of events is certainly an expression of the national interest in libraries pointing to the conclusion that they created the most appropriate circumstances for the rapid development of
library services. Unfortunately in practical terms such attainment in Algeria appears to be more a Utopian wish. More fundamental, as more people in Algeria are educated and many involved in some sort of research project, they are both consumers and producers of information. As these developments continue, the growth of libraries and information seems inevitable. In a similar vein, availability of information generates the need for more information and libraries seem to expand in this fashion. In Algeria this does not seem to hold as true mainly because, among other factors, these potential users and producers of information for whom library services are intended do not call for their availability. Being unaware of their existence and/or unmindful of their importance in education, research and other walks of life, make minimal use of these services where they exist. The ultimate result is lack of investment in libraries and information at local and national level leading to a sharp decline in the intellectual and cultural situation of the whole nation, whereby even the educated elite appear to be slipping back into ignorance because of overlooking the importance of libraries in individual and general advancement. Their use of libraries ends at graduation, for once they have passed their examinations and obtained their degrees they think they have learned everything they need to learn and thus stop reading if they were ever doing so.

All in all there are many areas and a great deal of scope to be exploited to the advantage of libraries and information in the evolving situation of Algeria. There is potential to make major
breakthroughs in the profession and in the education field providing
that the two present a united front to justify the request when
lobbying for more government and public support to set and achieve a
development programme.

In due course, the three institutes of library education can assume
a leading role by making frequent contact with libraries in order to
know their needs and tailor their education programmes accordingly in
order to produce graduates who would be operational immediately. They
should assume responsibility for continuing education of library and
information personnel outside the Institutes. Their development
policies should be based on the development of libraries and
information in the country. They should liaise between the profession
and the working environment by acting as providers of the right
competencies at the right level. This, of course, presupposes a
great deal of coordination and cooperation between library
professionals and educators to understand each others needs and
provide for them in common agreement and without interfering in each
other's specific responsibilities. For the moment the lack of such
coordination is the major retarding factor that holds back
librarianship in the country.

SUMMARY

The information infrastructure has been developing slowly. Many more
libraries and information institutions have emerged as a result of
the evolving environmental conditions. In general the development of
libraries has been uneven with school libraries in the bottom line. Recognition of the importance of libraries and librarians by the general public and more attention on the part of the authorities are necessary steps in the development of a national information infrastructure.

IT is penetrating in society in general through computer and visual literacy. IT brings with it greater potentialities for the national information infrastructure and its inclusion in the library education curricula may be the answer to some of the problems from which the profession suffers. Many political decisions bring with them the need for an efficient library and information system, but lack of qualified staff, technical and financial supports, are among the factors that work to the detriment of the development of libraries, library education, the publishing industry and, in general, the efficient handling of information. These problems reinforce the arguments for investing in library education to ensure the production of the right quality and quantity of expertise to embark on the upgrading of the nation's educational standards by feeding its members with the right information when requested.
REFERENCES


2. Ibid, p.15.

3. Ibid., p.18.


17. BÖUMARAFI, B. op. cit. pp 68-72.


21. Ibid.


27. Ibid. p.79.


29. Ibid. p.338.


33. Ibid. p.61.


35. BOUAYED, M. op. cit. p.60.


37. Ibid. p.19.

38. Ibid. p.28.

39. BOUMARAFI, B. op. cit. p.53.
40. Announced in a speech for the closing session of the three day Workshop on Library Education held in Oran in 1983 (no proceedings have been published).


44. In the Middle East and North Africa. op. cit. p.320.


47. Les Nouvelles Technologies de la Communication, Colloque international organise par le ministere de l'Information a Alger du 14 au 20 Nov. 1987.

CHAPTER 4
LIBRARY EDUCATION IN ALGERIA: CRITICAL ANALYSIS

4.1 MANPOWER SUPPLY

Political decisions of the 1970's generated considerable changes in the country's socio-economic and educational sectors. As has been described in Chapter 2, the oil boom increased the national wealth resulting in a consequent growth of the GNP. Education expanded, illiteracy dropped and research units developed. In turn this meant that the development of libraries became mandatory. Library education has therefore been developed to supply the qualified manpower necessary for libraries and information in order that trained manpower can contribute to national development plans.

Prior to 1963 there were only two ways in which the library manpower needs of the country could be supplied. The most common one was the appointment of expatriates, mainly French, librarians to man libraries and train local personnel as library assistants. The other method of staffing libraries was through on the job learning aimed at training intermediate staff. As the country developed these methods proved no longer adequate, so decisions were taken to establish and develop library education. In 1963, the National Library made the first attempt to train library personnel locally. Thus a curriculum emphasising the techniques of librarianship and archives was designed to train sub-professionals for:
"the libraries of the 1960's and earlier did not call for highly qualified staff; the librarian was there solely to preserve and look after the books on the shelves and was not expected to provide a service for readers" [1].

In 1964 the programme was approved by the Ministry of Information and Culture by decree 64-135 of 24 April 1964 [2] instituting a non-degree diploma called Diplome des Techniques de bibliotheque et archives better known as DTBA. The programme is covered over one academic year. Admission requirements is by evidence of general education of high school level* and experience in library work. The following table shows the number of recruits as presented by Chafai:

<table>
<thead>
<tr>
<th>Year of Admission</th>
<th>Students Enrolled</th>
<th>Students Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963/64</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>1970/71</td>
<td>35</td>
<td>13</td>
</tr>
<tr>
<td>1972/73</td>
<td>43</td>
<td>23</td>
</tr>
<tr>
<td>1977/78</td>
<td>43</td>
<td>31</td>
</tr>
<tr>
<td>1980/81</td>
<td>47</td>
<td>40</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>194</td>
<td>123</td>
</tr>
</tbody>
</table>

Source: Chafai [3]

TABLE 3: NUMBER OF STUDENTS IN THE DTBA

* Baccalaureat
As this table shows the output of the DTBA is too small to respond to the growing needs for library manpower at all levels as will be seen later in this chapter. The programme was supplemented by in-service training inside and outside the country and by sending students abroad to acquire library degrees, mainly in France for the Diplome Superieur de bibliothecaire - the DSB. The DTBA was discontinued in 1985, two years after the Diplome de technicien superieur des bibliothèques was introduced to prepare para-professionals within the existing schools of library education.

It was not until the 1970's that the decisions makers understood that

"without well educated and highly qualified personnel, libraries, knowledge, books and cultural resources and services are but a hollow promise" [4].

It was therefore acknowledged that graduate library education must be an essential element in the development of libraries in the country. Thus 1975 marked the turning point in the development of local, formal library education. This was preceded by many events which culminated in the creation of the first Institute of Library Education attached to the University of Algiers (the leading University).

In 1970 a Unesco expert, Forget [5], came to Algeria to give a series of lectures to the students of the DTBA. She also organised a workshop for those already in the profession and those directly
concerned with the planning of libraries and information i.e. authorities from education, information and culture, planning, economy sectors and so on. At the end a round table was organised to debate issues arising from the workshop. At this point discussions were focussed on the possibility of setting up a formal library school in the country and advice on the design of its curriculum. The idea of starting such a school was then considered a bit premature by some members, who justified their reluctance by the lack of local facilities, mainly the lack of faculty expertise in the field.

All in all the idea did not receive popular support within and outside the library milieu. For instance, the head of the National Library thought that the time and facilities were then inappropriate for such a proposal. He made it clear in that in his opinion this could not materialise before at least five years [6]. His argument went unchallenged and the idea of establishing a library school was shelved until the mid 1970's when the project eventually materialised in the establishment of the first library programme at University level. A Belgian head of a University library, professor in history was commissioned to advise on the design of a curriculum for the training of librarians, documentalists and archivists. Despite all the problems, the programme began to function as part of the Institute of Sociology of the University of Algiers, with two Algerian professionals and visiting lecturers, mainly from France, to carry out the teaching activity. Eleven students were enrolled in
October 1975 for a four year course leading to the licence degree. Like any other university degree the Baccalaureat is required for admission into the course. The curriculum shown in Appendix 5 is to be covered.

4.2 THE INSTITUTE OF ALGIERS

The Institute of Algiers was established by decree 75-90 of 24 July 1975 [7]. It was attached to the Institute of Sociology for the first year. Then it became autonomous as the Institute of Librarianship, Documentation and Archives where the teaching was still carried out by two Algerian librarians and visiting lecturers from abroad. The Institute grew slowly; acquiring more facilities and resources, in order to cope with the increasing intake of students and staff. The curriculum was also being continually revised and courses altered to meet the needs (see Chapter 7 on curriculum development). The new Institute acquired temporary accommodation within the main site of the University and began to expand. At present the Institute offers courses at both professional and sub-professional levels; these are:

a) a two year non-degree diploma for library technicians; the BTS*;
b) a four year bachelor degree; the licence;
c) a two year postgraduate diploma; the DSB;
d) a master's course; the Magister.

* Brevet de Technicien Superieur.
a) The Library Technicians' programme better known as the BTS* started in 1983 on the recommendation of the Ministry of Higher Education with the main objective of training staff for intermediate positions in libraries. For this purpose, the scope and coverage of its curriculum is purely technical. This is reflected in the following content covered over two years: cataloguing, classification, bibliography, library administration, history of books, publishing and distribution, archives, documentation, cultural sociology, typing and English. Students attend their lectures in the morning and spend their afternoons in libraries for practicals.

Admission to the course from 1983 to 1986 was only by evidence of the 3 AS** level and passing a competitive examination. From 1986 onwards the baccalaureat is required for admission to the course. The following table shows the number of students:

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984/85</td>
<td>74</td>
</tr>
<tr>
<td>1985/86</td>
<td>54</td>
</tr>
<tr>
<td>1985/87</td>
<td>62</td>
</tr>
<tr>
<td>1987/88</td>
<td>38</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>228</td>
</tr>
</tbody>
</table>

Source: Report of the Institute

TABLE 4: BTS STUDENTS

* Brevet de Technicien Superieur
** 3 AS: Troisieme Annee secondaire; level of baccalaureat
b) The licence: This is a four year undergraduate programme designed to train students at university level to prepare them for more professional duties at a higher level. For they are expected to take up leadership positions in libraries, documentation and archives. Admission is for holders of the baccalaureat and those with the DTBA and three years experience in a library. In terms of curriculum structure and content Chafai describes it as follows:

"the courses taught are of two kinds:

a) the technical subjects of documentation librarianship and archives are spread all over the curriculum;

b) the subjects of general culture i.e. non-professional subjects (sociology, foreign language, literature, mathematics, statistics, computing, etc) also spread all over the curriculum.

The teaching is supplemented by visits to and practicals in libraries" [8].

The curriculum covers a good deal of non-professional subjects called 'general culture'.

The general opinion supporting these non-library subjects, is to give library education a respectability as a University course and provide graduates with a well rounded general education to fit comfortably in the University surroundings. The extent to which this objective is achieved depends on whether or not the library graduates understand the needs of other academic departments and provide for them in working situations. Table 5 shows the students intake since the starting of the licence programme.
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974/76</td>
<td>11</td>
</tr>
<tr>
<td>1976/77</td>
<td>7</td>
</tr>
<tr>
<td>1977/78</td>
<td>49</td>
</tr>
<tr>
<td>1978/79</td>
<td>56</td>
</tr>
<tr>
<td>1979/80</td>
<td>40</td>
</tr>
<tr>
<td>1980/81</td>
<td>32</td>
</tr>
<tr>
<td>1981/82</td>
<td>44</td>
</tr>
<tr>
<td>1982/83</td>
<td>38</td>
</tr>
<tr>
<td>1983/84</td>
<td>69</td>
</tr>
<tr>
<td>1984/85</td>
<td>52</td>
</tr>
<tr>
<td>1985/86</td>
<td>71</td>
</tr>
<tr>
<td>1986/87</td>
<td>52</td>
</tr>
<tr>
<td>1987/88</td>
<td>142</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>663</strong></td>
</tr>
</tbody>
</table>

Source: Report of the Institute

**TABLE 5: LICENCE STUDENTS**

c) The Postgraduate Diploma - the DSB started in 1983/84 to produce high level professionals to take up leading positions in libraries and information institutions. Students of the DSB are also allowed to cover some teaching areas in both the licence and the BTS programmes. To join the programme students are required:

i) to have a first degree in any subject;

ii) to pass competitive entrance examination;

iii) candidates with a good library experience are exempt from this examination providing they have a University degree in any subject and obtain release from their employers.
It should be noted that library experience is not required of groups i and ii. The programme was set up to last two years. The first year spent acquiring theoretical knowledge covered in a curriculum emphasising the following areas: general bibliographies, cataloguing, classification, library management, documentation, automation, English and visits. The second year should be spent writing a dissertation, but, in practice, students take much longer to complete their dissertation as a result of many drawbacks which can be summarised as follows:

a) Lack of clearly defined status of the DSB; the DSB has been launched without the approval of the Ministry of Higher Education. It is, therefore still suffering from a lack of proper legislation which would give it the legal status that commands the recruitment and salary of graduates. If this situation continues there are risks that the course will cease due to lack of recruits;

b) Lack of recognition; the lack of public awareness of the importance of libraries results in a similar lack of interest of the government to make proper support for library education;
c) Lack of professional literature; there is no local professional journal or even a newsletter to bring to attention professional and educational problems and generate local knowledge to support research. There are difficulties in purchasing library material from abroad and this hinders the whole process of research and indeed that of curriculum development;

d) Poor supervision of students' projects; the lack of highly qualified teachers, along with the poor libraries, results in little guidance of students engaged in projects and dissertations. Long distance supervision is not very effective too. All this causes delays in the completion of research projects and dissertations;

e) Lack of follow up of students' work; teachers do not seem to take enough interest in their students' work, encouraging and pressing them to finish within the required period.

All this amounts to the lack of students' enthusiasm to finish in time. Undoubtedly this has a negative effect on the development of the profession. The programme is however, gradually gaining popularity among professionals in that the number of recruits has kept on increasing slowly but steadily as shown in the following table.
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983/84</td>
<td>17</td>
</tr>
<tr>
<td>1984/85</td>
<td>25</td>
</tr>
<tr>
<td>1985/87</td>
<td>30</td>
</tr>
<tr>
<td>1986/88</td>
<td>31</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>103</strong></td>
</tr>
</tbody>
</table>

Source: Report of the Institute

**TABLE 6: DSB STUDENTS**

d) The Magister programme is a very recent experience undertaken first by the Institute since 1983/84 to train graduates mainly for teaching positions in the Institute in order to reduce the dependency on visiting lecturers who are hard to get and also very expensive. Entrance is limited to those holding a first degree in library science and the holders of the DSB who have experience in library work. A curriculum stressing education and research methodology, general principles of librarianship and information and English is covered in one academic year. During the second year students take up a research project and produce and defend a thesis. As with the DSB the same problems are encountered by the students of the Magister as far as the preparation of their thesis is concerned. Furthermore all students are subject to long distance supervision; all their supervisors are expatriates based abroad. As a result, the contact between students and supervisors is difficult and very
irregular. This situation is attributed to the fact that the rule in Algeria is that postgraduate students of the Magister programme cannot be supervised by less than a PhD holder and for the moment there are no nationals with such a degree. Generally speaking, it is certainly a considerable step forward in the development of library education in the country although it seems, that it may be a long time before we can see the Magister holders in our Institutes.

The Institute of Algiers has enjoyed the monopoly of library education for almost a decade and, although it has been criticised for not being able to solve the difficulties of the profession such as lack of status, personnel and professional literature among others, its contribution to the profession and library education cannot be denied. Besides the problems of the profession can be solved only by the efforts of many socio-economic and educational parties and the necessary support of the government in achieving the objective of developing a national information infrastructure, so necessary to support the country’s development plans. The teaching of technical subjects is covered by a total number of 27

staff.

divided as follows:
<table>
<thead>
<tr>
<th>Title</th>
<th>Number of Staff 1987/88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief librarians</td>
<td>6</td>
</tr>
<tr>
<td>Librarians</td>
<td>2</td>
</tr>
<tr>
<td>Lecturers</td>
<td>5</td>
</tr>
<tr>
<td>Assistant lecturers</td>
<td>13</td>
</tr>
<tr>
<td>Expatriates</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Source: Report of the Institute

**TABLE 7: TEACHING STAFF**

4.3 THE INSTITUTE OF CONSTANTINE

In 1980 Reicher (Daniel) a Canadian Unesco consultant, was invited by the Algerian government to assess the situation of University libraries and make recommendations for their development. The investigation concerned itself with the major University libraries, i.e. Algiers, Oran, Constantine and Annaba. When rounding up his deliberations Reicher [9] observed that the key to library development in the country is the availability of qualified staff, especially the provision of professionals at leadership level. This was later endorsed by the members of the Conference Nationale des Bibliothèques Universitaires 1980. Both recommended the establishment of more training programmes at the Universities of Constantine and Oran to ease the pressure put on the Institute of Algiers and at the same time accelerate the production of qualified staff. These two events could be said to have laid the foundation stone for the establishment of the Institute of Constantine.
In 1981 the Constantine University Council - Conseil d'université - put forward a proposal for a postgraduate programme. The proposal was first challenged by many professionals in Constantine and Algiers arguing that Constantine University had neither the material nor the human resources to embark on such a programme. For instance, library educators from the Institute of Algiers strongly opposed the idea of a postgraduate diploma in a University with no experience in library education, contending that the Institute of Algiers should remain the only library school which trains nationally [10]. There is no denying the fact that some of those arguments were well founded, i.e. the lack, or rather the non-existence of facilities for library education, but other criticisms were simply unrealistic and, by and large, patronising, such as restricting library education to the Institute of Algiers which proved unable to meet the demand for professionals. All in all, Constantine University ignored these arguments and started a postgraduate diploma, i.e. DSB in 1982 without even receiving the approval of the Ministry of Higher Education. The programme started under the patronage of the University library as a Department of Librarianship, operating with very limited resources relying heavily on visiting lecturers and part-time ones. Eighteen students were enrolled according to the requirements mentioned earlier in this Chapter. In 1983 the present writer joined the Department to be the first full time lecturer, to be appointed three months later as the Head of Department. A decisive turn in the evolution of library education in the area took place.
The Department became administratively independent from the library, but economically dependent on the latter's support for another year.

In 1984 the Department gained the Ministry's recognition and became the Institute of Librarianship. At the same time it obtained permission to start a Licence programme. By then the Institute already had five full time library teachers; four expatriates with doctorates and the present writer with a Master's degree. In 1985 the Institute moved out of the Library enjoying better accommodation facilities and a small budget for its functioning. At present the Institute offers the following programmes:

a) the Licence
b) the Postgraduate Diploma - DSB
c) the Magister.

First it should be mentioned that the technician programme has been offered by the Institute only once in 1983/84. Seventy two students were enrolled as required, 65 completed the course in 1985. For the time being the course is held up pending the proper status for the recruitment of the students is available to be assured a job immediately after completing their training.

a) The Licence

Started in the 1983/84 academic year with an initial intake of 15 students, only nine completed the course in June 1987. The number of
students enrolling in the Institute is not very promising. Most of the students drop out at the end of their first year. Perhaps because the programmes are not well publicised to attract more students, also the objectives of library education are too vague to appeal to new recruits who grew up in a non-library society. The following table shows the number of students:

<table>
<thead>
<tr>
<th>Year</th>
<th>Students Enrolled</th>
<th>Drop Outs</th>
<th>Students Still on the Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983/84</td>
<td>15</td>
<td>6</td>
<td>9*</td>
</tr>
<tr>
<td>1984/85</td>
<td>32</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>1985/86</td>
<td>43</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>1986/87</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>1987/88</td>
<td>21</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>136</td>
<td>53</td>
<td>83</td>
</tr>
</tbody>
</table>

* The first batch to have completed in 1987.

Source: Report of the Institute

TABLE 8: LICENCE STUDENTS

b) The Postgraduate Diploma - the DSB

This was the first local postgraduate programme, established in 1982/83 with the major objective to produce staff to take high level professional jobs in the Departmental libraries of Constantine University. This objective was met by an intake of 18 graduates who fulfilled the admission requirements. In 1984/85 the Institute was asked by the University centres of the region to provide them with qualified librarians for their newly established libraries. The
Institute responded by enrolling 15 students who took the responsibility of establishing and developing the libraries of the emerging university centres. Like the technician programme, the DSB has been held up for the moment until institutions committed to recruiting graduates on completion of their first year express a demand for this qualification. This attitude is taken by the Institute to avoid training for an unknown market and reduce the frustration of the DSB holders.

c) The Magister

The Institute of Constantine has just launched a Magister in documentation, to train staff to take up teaching activities within the Institute and engage in research in order to solve the library profession problems through teaching and research. The curriculum emphasises documentation i.e. information science courses. The question, however is whether both the Institute of Algiers and that of Constantine can afford to stretch their limited resources any further to meet the requirements of such advanced programmes as the Magister, in terms of faculty, library materials and other facilities. For unless the teaching/learning and research facilities are made widely available, the programmes are doomed to failure and end up producing mediocre staff. Of course one is not unmindful of the need for such programmes; it is rather gratifying to notice the efforts to upgrade library education status by engaging in high level programmes such as the magister. The point under consideration is whether or not these programmes will be taught effectively given the
local resources. Above all it is important to remember that successful results deriving from any education programme stem from the availability of faculty expertise, a relevant curriculum and suitable (in quality and quantity) teaching materials.

The following table shows the number and title of the faculty at the Institute of Constantine:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarians</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lecturers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior lecturers</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Professor(s)</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>DSB</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>

Source: Report of the Institute

TABLE 9: TEACHING STAFF

4.4 THE INSTITUTE OF ORAN

The origins of its creation could be said to be the outcome of Reicher's recommendations as said in the preceding section. As in the case of the Institute of Constantine, it started in 1983/84 functioning as part of the University Library of Oran - Es Sania; sharing its facilities and headship. In 1985 a programme called La carte universitaire literally meaning "the University map" was launched by the Ministry of Higher Education, for a better and even geographical redistribution of higher education. This added to the
University of Oran an Institute of Librarianship. Thus the expected change happened when a British educated member of staff joined the Institute and became its head. Since then the Institute has been gradually developing and the number of students has been growing steadily. The Institute trains at the technician and licence level and has plans for the Magister too. The number of students intake is as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technicians</td>
<td>17</td>
<td>83</td>
<td>74</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Licence</td>
<td>11</td>
<td>10</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>257</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


TABLE 10: TECHNICIAN AND LICENCE STUDENTS

The objective of the Institute is "to train staff for the libraries of the two Universities of Oran and other libraries in the region" [11]. The Institute has only two permanent members of staff; the Head of the Institute (an MPhil holder from City University), and the
course tutor, (a DSB holder from Villeurbane). Teaching is supplemented by visiting lecturers from both the Institutes of Algiers and Constantine, professionals of the area and visiting lecturers mainly from France.

This descriptive account of library education in the country has revealed that the former is in various stages of development. This is in spite of all the limitations encountered by the three institutes, that can be summarised as follows:

1. The curriculum is traditional emphasising theory rather than practice;
2. The Institutes do not offer enough facilities for problem solving;
3. They offer enough courses in information science but with little relevance to Algerian practice and none in special librarianship;
4. They suffer from the lack of qualified teachers, professional literature and other teaching materials.

An opinion which has evolved from the above description is that the present library education system has not yet succeeded in meeting the needs of the profession. This implies that for the Institutes to fulfill their role effectively a new dynamism is required in acquiring more resources and putting them together to improve the quality and quantity of their output. At this juncture, one should consider a cooperative programme in order to:
1. To provide an opportunity for library professionals and educators to meet and discuss problems of the profession.

2. To create an atmosphere of professional solidarity.

3. To propagate a current awareness of new techniques and professional thinking in all spheres of library activity.

4. To examine and elucidate educational and professional difficulties and seek solutions in a national framework.

5. To establish and maintain continuing education programmes for library and information personnel (practitioners and educators).

6. To propose and encourage research projects dealing with library problems nationwide.

A report published in 1987 by the Comite Pedagogique National, de Documentation [12] urged cooperation between the three Institutes of Librarianship and identified nine areas of activities. These are:

1. Establishment of a guide of library teachers (to facilitate contact between them);

2. Exchanging teachers according to needs expressed by individual institutes;

3. Determination of dissertation and project subjects, their supervision and examination;
4. Establishment of a common programme concerning visiting lecturers and consultants in order to ensure that the three Institutes share and benefit from the expertise of the former;

5. Engaging in the evaluation of education programmes and the introduction of new modules (curriculum development);

6. Organisation of workshops and similar activities according to themes and subjects agreed by the three Institutes;

7. Exchange of library material;

8. Exchange of students in the form of visits and placements;


None of these suggestions is either original or impractical. Some have in fact already been acted upon, such as for instance items 2, 4, 7 and 8 have been proposed by the Institute of Constantine in 1983 as areas of cooperation, and since 1984 such a programme has been operating successfully between the Institutes of Constantine and Oran. This proved very successful and inspiring. It needs to be emphasised that changes in attitude on the part of all those involved in library education to commit themselves to a more formal cooperative scheme to improve the situation in library Institutes by making maximum use of all potentialities and facilities existing in...
the three Institutes. Meanwhile it is very important that library schools use the areas of cooperation evolved by the Comite Pedagogique as guidelines for launching a cooperative scheme based on trust and faith in each other.

4.5 MANPOWER DEMAND

As far as can be ascertained, there has not been a national survey on library manpower demands on which to base this study. This would be necessary in order to make accurate projections in terms of quality and quantity of library and information personnel needed for the present and future information market place in Algeria. Recent statistics released by the Ministry of Culture [13] establish the library manpower target for the year 2000 as follows:

- 13,333 school librarians at a ratio of 1 professional for every 300 pupils
- 333 university librarians at a ratio of 1 to 300, and
- 10,000 public librarians at a ratio of 1 for every 2000 readers.

The same statistics predict a total population of some 32,500,000 in the year 2000 needing no less than 16,255 librarians of which 4064 will be fully qualified to cater for the public.

On the other hand in 1980 Reicher [14] reported that there were 120 University librarians which represented only 15% of the number of professionals required at that time, which Reicher estimated at
1,400. The author also predicted that by 1990 university libraries would need 440 professionals. His estimates had been based on the assumption that in 1990 there would be 110,000 students in the whole country. However, the decade has not run its full course and the major factor on which Reicher's forecast had been based has proved shortsighted and rendered his projections inaccurate, for in 1986/87 there were already 153,043 students (Chapter 2), a figure which has by far exceeded Reicher's projections for 1990.

A general observation that can be made about the statistics issued by Reicher on the one hand and by the Ministry of Culture on the other, that is as far as University libraries are concerned, is the contradiction revealed by the quantity of professionals predicted by each study. This shows that neither had based their projections on results of proper surveys carried out at a national level. Certainly no one can accurately predict the future, but proper analysis of the socio-economic, political and other environmental factors that shape the future will undoubtedly result in closer estimates.

The manpower needed for libraries and information in Algeria cannot be determined by a study on a small scale. What is needed is a study on a large scale to survey the total number of all types of libraries and information institutions in the country, the number of staff employed in each institution and their level of education, the number of professionals and non-professionals needed for each institution now and in the future, and which jobs are needed now and which future
jobs should be included in individual libraries. Only then can projections of future manpower needs be better determined. The importance of such surveys will help to determine what type and level of curricula should be taught in order to satisfy the various library needs of the different user groups.

In 1986 the population was around 25,000,000 which means that it has been growing at a yearly rate of 1.89% and assuming that the school and University populations will be growing at the same rate, then there will be 8,710,000 pupils and 200,000 students by 2000. Again using general assumptions, and applying the previous ratios then the projections for 2000 will be as follows:

- 666 University librarians for 200,000 students at a ratio of 1 to 300
- 29,033 school librarians for 8,710,000 pupils at a ratio of 1 to 300, and
- 16,250 public librarians for 32,500,000 inhabitants at a ratio of 1 to 2000.

At this juncture, it is worth remembering that according to Tables 3, 4, 5, 6, 8 and 10 of this chapter, the three institutes of library education have produced altogether 1564 library staff (professionals and semi-professionals for all types of libraries during the last 13 years. To reach the targeted manpower levels, the Institutes have to produce over 5000 librarians each year for the next 11 years. This
study of manpower needs shows a noticeable gap between supply and demand.

On the one hand the Institutes are under producing and on the other their resources cannot be stretched any further. This underlines the need for the adoption of a national programme for staff training and development based on systematic analysis of factors which affect the need for library services. The estimates not only present wide evidence of the challenge to the Institutes of library education in the country, they also reflect the amount of work required of them for the next decade. Undoubtedly the task is not an easy one and the Institutes need greater support to fulfil the targets for the year 2000, unless the government gives priority to libraries and releases more funds and grants for study of librarianship both at home and abroad, this will be impossible to achieve. Furthermore, the importance of library manpower planning viewed in relation to national development plans should be seen as crucial to library development in general. For to articulate a national programme for library staff development requires the recognition of libraries, librarians and library education as contributors to the development of the country on which to base the need for manpower at a national level. The need to pursue such a programme in order to ensure the availability of the required staff at the required level can then be based on this recognition.
Jahoda [15] provides a set of queries which may form the basis for inquiry into manpower planning:

1. What are the anticipated short term developments in librarianship and related fields? Projections are also needed on technological developments.

2. What are the anticipated manpower needs, both in number of people and types of skills? What are the characteristics of individuals that should be attracted to librarianship?

3. What will be the job of a new librarian and that of the experienced one?

4. What background in mathematics, logic, computer programming and other relevant subjects will the college graduate bring to the library school?

5. If the function of the school is to set the pace for the profession, what resources must be provided to the school to enable it to perform this function?

6. How can curriculum changes best be implemented?

7. What background and experience should teachers have?
8. How can teachers best be trained, retrained and updated?

9. What are the best teaching techniques for achieving specific behavioural objectives?

10. What teaching aids can be prepared or provided to facilitate the task of the individual teacher?

4.6 STANDARDS FOR LIBRARY SCHOOLS

There is a need to conform to some form of standards and guidelines especially in a developing country like Algeria where library education is a recent phenomenon. In order to achieve and maintain some conformity some international standards need to be met. For instance, in the 1976 IFLA Standards for Library Schools, it is argued that the development of the library and information profession raised the need for high quality education programmes and it would appear that some "standards are essential when planning library services (and education programmes in Algeria) and subsequently for evaluating them" [16]. These standards, as provided by IFLA are expressly stated as follows:

"The school should function at university level. It should have clearly formulated and accepted goals, and objectives. It needs a definite place in its own institution, appropriate to its professional character. Financial support should be definite and positive - related to the accepted goals and objectives of the programme. Accommodation must be suitable to the needs and also the library resources. A highly qualified teaching staff is necessary, numbering at least one person for every twelve students. Curriculum should emphasise principles and
concepts, rather than routines; it should include a fundamental "core" of basic subjects, a general education component, and areas of professional specialisation. Continuing education activities are necessary. Clear, published norms for admission are needed; and also clear, published expectations for completion of the programme. A suitable credential should be awarded to students who complete the course of study " [17].

If this view is accepted, then setting up standards should be viewed as one of the general purposes of library schools by which they can evaluate their achievements both from national and international angles. For instance, it is necessary to consider national requirements in formulating educational objectives, bearing in mind that such requirements will be most effective if they are designed to fit into an international framework. One obvious advantage of this approach is that it will help local programmes to carry the same weight nationally and gain international recognition and perhaps acceptability of the qualifications obtained especially in the case of the DSB in Algerian library schools.

4.7 LIBRARY SCHOOL FACILITIES

At this point special attention must be given to library materials and faculty expertise, for it is important to remember that education programmes cannot be developed and maintained without taking into account the availability of faculty expertise and the library material necessary for the implementation of the programmes and indeed curriculum development.
4.7.1 The Library of the Library School

The library provides a major support for the achievements of the library school as a whole in that it is the "laboratory" in and from which the students may gain more insight into librarianship, and it is also of paramount importance to the teachers in assisting them in the planning of their lectures. The underlying assumption is that a good library collection helps the students broaden the scope of their thinking and acquire enough knowledge to develop and adopt more confident attitudes in tackling library issues. In Algeria none of the three library schools in the country has a good library. A good library is a major asset in determining curriculum changes and implementing them and must be recognised by those involved in curriculum development as such. In this respect, the attainment of at least minimum standards in terms of literature, equipment and space are essential and must be provided according to accepted standards.

In addition to providing learning/teaching resources, the library is also a contributory factor in the curriculum development process; i.e. it is expected to develop learning resources for the areas that are taught with special emphasis on local and/or national features. As far as can be ascertained, no library in the three institutes can provide such services. For instance, no book that reflects the Algerian library situation has been published except a few Unesco reports and very few papers, and there is not even one professional journal to encourage research and publicise its results in order to generate a local body of knowledge to be used to solve any problem.
of library education and services as they arise from local circumstances. For the time being, the only attempt along these lines is asking and encouraging students to undertake dissertation projects that draw attention to problems in Algeria. This seems to make very little if any impact at all on the Algerian library situation; for the lack of facilities for the reproduction and publishing of such projects restricts their distribution. As a result, their contribution to library and information work remains minimal. Furthermore, the "lack of teaching materials in Arabic has, no doubt, been a major and most important factor affecting the quality of library education" [18]. This deficiency was underlined at the 1976 meeting of Supervisors of Library Schools in Arab Countries [19] which recommended that cooperative activities should be organised between library schools to redress this situation. This recommendation has special relevance to Algerian library schools which suffer from a plethora of problems including the lack of well stocked libraries to enable them to fulfil basic education requirements. Concerning the library of the library school in developing countries Dean writes:

"If a library school takes the line that its resource centre (its library) provide the vast majority of the materials needed by students; duplicating reference tools, bibliographies, monographs, periodicals etc ... then a reasonably good library of librarianship will amount to about 20,000 volumes with seating for about 50% of the academic and student body. This is a luxury that few developing countries will be able to afford, but many will expect to have a small working collection with several thousands and with accommodation for possibly a quarter of the clientele" [20].
4.7.2 Teaching Staff

The problems facing library education in terms of teaching staff in developing countries, and certainly in Arab countries such as Algeria, can be described as follows:

"the lack of a sufficient number of qualified high level professionals to carry on undergraduate and postgraduate level teaching in library and information science ... The shortage of teachers in such topics as reprography, documentation, information retrieval system and automated processing hampers the intention to revise (the curriculum), and forces the stagnation of teaching methods and subject coverage" [21].

The professional literature has emphasised that quality in education depends on the quality of those who deliver it; i.e. teaching staff. They should be adequate in terms of quantity and quality to carry out education, training and supervision activities to achieve the education objectives of the school. For instance the Conant report suggests that:

"the ideal faculty of a library programme should combine the following qualities: a distinguished background in librarianship and/or in a scholarly work, including a mastery of the several areas of librarianship, proven effectiveness in graduate instruction, ability to apply theory to practice and to encourage in students a conceptual approach to problem solving, skill in utilising libraries as laboratories for instructional purposes" [22].

According to Abdelhady Fethi [23]:

"A member of the teaching staff is a teacher, and a researcher; he is required to participate in the professional, cultural and administrative activities of the library school". 

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Furthermore the author suggests ten (10) areas of activities in which the library teacher should be involved; these are:

1. Providing students - according to the required teaching methods - with the theoretical and scientific principles and other facets of library subjects bringing to their attention the new developments in the subjects bearing in mind that library and information education is amongst the subjects undergoing many developments;

2. Designing the school curriculum according to new trends in curriculum development and revising it regularly;

3. Training or supervising training in the practical field;

4. Preparing textbooks and handouts that help students understand the lecturers and direct them towards the readings needed, in other words preparing and issuing bibliographical and reading lists for their students;

5. Following conventional assessing methods to know the extent to which the objectives of his course are met;

6. Developing and encouraging the students' efforts and guiding and supervising them in writing papers for publication;

7. Supervising projects and dissertations of students;
8. Conducting innovative research and surveys which will contribute to knowledge in libraries and information;

9. Participating in academic and administrative activities of the school such as: curriculum development, attending meetings of the school, supervising students, etc;

10. Participating in various professional activities (both at local, regional and international levels) such as providing consultancy, participating in conferences and workshops etc.

These characteristics of faculty staff are still to be met by teachers of the three Institutes in Algeria. It is therefore urgent that library education authorities "should take all the necessary steps to encourage exchange of staff, to hire professional staff from other countries, and to send more students abroad for short courses and for higher education" [24].

In addition to ensuring the availability of full time teachers, there is a need to supplement library schools' teaching and other activities by recruiting part-time lecturers to bring into the classroom current practice and a fresher look into new library trends.

"Experienced professionals should be invited to teach in greater numbers in the library schools and the educators
should utilise libraries as training laboratories and as research sites, joint research projects between library educators and librarians should be a regular activity" [25].

In term of quantity, recommendations are made regarding what should constitute the minimum requirements in terms of quantitative adequacy of staff. This is established by Unesco guidelines to a minimum of 4 to 6 full time teachers regardless of the number of students to be taught. IFLA standards recommend one teacher for every 12 students while the British standards suggest one teacher for every 10 students. Whatever should be considered the appropriate staff/student ratio, there certainly should be enough permanent staff to cope with the teaching load and these should be aided by practitioners on a part time basis to enrich the teaching with their practical knowledge. From a close examination of the preceding tables, it would appear that some of these requirements are more or less met by the three Institutes at least in terms of quantity. In addition they have part time teachers in varying numbers, they arrange for visiting lecturers from within and outside the country. Despite these efforts library educators do not have adequate competencies, qualities and facilities to make successful contributions to the library profession and to library education.

Line suggested 13 steps for the improvement of library education. He seems to emphasise that the development of library education is the responsibility of library educators as well as practitioners. The author proposed:
1. The broadening of courses;

2. The involvement of related professions such as publishing in the development of curricula;

3. The incorporation into courses of training in writing statistical and analytical skills;

4. Much closer association with local libraries, more practical work by students, more teaching by local practising librarians and more experimentation by the local libraries;

5. Greater emphasis on practical needs and problems, as both the starting and concluding points of all elements in the course.

6. Greater emphasis on ideas, concepts and principles, and less on theory and routine skills.

7. Much greater attention to crash and updating courses for practising librarians at all levels;

8. Organisation of seminars in which practitioners would teach and learn from one another, with whatever help was required;
9. Much greater efforts on the part of lecturers to move back into practice. This implies greater willingness on the part of libraries to take them into practice. This in turn means that they should not have been out of practice for more than five years, and in any case no one should lecture in a practical subject for more than five years consequently.

10. More recruitment into teaching of librarians possibly in secondment.

11. More part time lecturing by practising librarians.

12. More teaching of students by one another, to provide practice in communicating, formulating ideas, etc.

13. Incorporation as an integral element into all practising libraries of learning and practical research [26].

All these areas of action are pertinent to the development of library education in Algeria, though the present situation of library schools and the mistrust between library practitioners and educators may make most of them very difficult to implement right now. They should however be used as a basis for the improvement of library education in Algeria and the sooner these are acted upon the more effective the results.
SUMMARY

From the preceding description of the three Institutes of library education, it is apparent that they are in various stages of development. Many events in the field of librarianship were very influential in shaping this development in that they seem to have paved the way for the emergence of librarianship as a university discipline. This account reveals that major efforts need to be made by the three Institutes to meet national needs and be in line with international standards. The present study's projections into the next decade implies that crash development programmes are now needed to prepare the three Institutes of library education for the challenges of the year 2000 such as in producing more library staff and educators, expansion into research and continuing education activities.
REFERENCES


3. Ibid., p.71.


6. Ibid, see recommendations.

7. Chafai, R. op. cit. p.73.

8. Chafai, R. op. cit. p.73.


10. The present writer in a discussion with A. Tachour, Deputy Head of the Institute of Constantine, who participated in the establishment of the 1982 DSB.

11. YACINE, B. La formation de documentalistes, bibliothécaires et archivistes, à l'Institut de bibliothéconomie et sciences documentaires d'Oran (unpublished document).


14. REICHER, D. *op. cit.*


17. Ibid., p.211.


21. Meeting of experts on the national planning of documentation and library services in Arab countries, Cairo, 1974.


24. Meeting of Supervisors ... *op. cit* p.54.

25. CONANT, R.W. *op. cit*, p.196.

CHAPTER 5
A BASIC FRAMEWORK FOR CURRICULUM DEVELOPMENT

5.1 DEFINITION OF CURRICULUM DEVELOPMENT (CD)

A good starting point is to clarify what is generally meant by curriculum development. A survey of the literature reveals several meanings related to the use of the term. There has been some reluctance on the part of writers in producing a "sur-mesure" definition. This may indicate that curriculum development as a subject of research in the field of library education is relatively new. Apparently the term curriculum development started to be regularly used in the professional literature only in the 1970s. For instance the word curriculum appeared in LISA for the first time in 1973 and it was not until 1976 that an entry for curriculum development was made in the same journal. However, this does not mean that the term was unknown in the education "milieu" before the 1970s, for Lawal [1] traces the use of the word curriculum by Glasgow University as far back as 1643.

As curriculum development began to gain ground in the professional literature, broader definitions were suggested denoting the totality of knowledge and experience the graduates gain from attending an educational institution. Curriculum development, says Harrison, "should not be interpreted in the narrow sense of a taught part of a course of study, rather it should be seen as a part of the total experience provided for the student by the college" [2].

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The Encyclopaedia of Library and Information Science has no entry for curriculum development. It defines curriculum and libraries as "the planned interaction of students with the instructional process for the attainment of predetermined objectives" [3]. This definition takes too narrow a view and arguably offers little for identifying essential variables that serve as a focus for understanding fundamental questions of the curriculum development process.

It is not within the scope of this research project to provide a list of definitions related to the use of curriculum development. At this juncture, it is important to consider McGarry's interpretation of curriculum development which fits best within the scope of this research and which runs as follows:

"Curriculum development, whether professional or academic, is a map of reality as perceived by those who make the map of knowledge and learning experiences (my emphasis). Included within its scope are those who teach: those who are taught; the social and vocational relevance of the content; and a picture of the needs of those who are to benefit from services of those produced by the system. Curriculum development is not an elegant synonym of syllabus, it includes the aims and values of the community for whom it is designed. It cannot be a closed system if it is to be effective" [4].

If we analyse this definition, curriculum development can then be viewed as a system comprising several elements, i.e. identifying and stating the aims and objectives of the curriculum; designing and planning education methods; selecting content and evaluating results. In other words curriculum development is a broad area of educational activity which encompasses the statement of objectives.
the planning and orientation of teaching/learning activities involved in the production and assessment of students destined for the information related professions. Clearly the interaction of these elements and their relationship within the working environment will provide a fitting framework within which it is possible to ensure the social relevance of the curriculum.

5.2 APPROACH TO CURRICULUM DEVELOPMENT

It is established that education is concerned with the cognitive development and acquisition of knowledge and experiences needed for successful practice, and that curriculum development is the process by which that knowledge and experience are identified and discharged in a given environment. Using proper educational theories, writers try to produce an appropriate approach to the development of a curriculum for library/information education.

Earlier studies have concentrated on an integrated approach for the design of a curriculum for the education of librarians, documentalists and archivists, stressing the importance of a common core of studies for what is called the three branches of the same discipline [5]. In an apparent support of this approach, Unesco hosted an international conference in 1974 where attention was given to identifying areas of a common core for these three branches. A significant move was made by Havard-Williams and Frantz [6] who delivered a seminal paper suggesting a common core of five (5) topical areas of study, these are: method; mechanization;
management; foundations; and men. The authors proposed that this core must be mastered by the three categories of graduates and that specialisation for each category should be achieved through an optional choice of subjects to be studied alongside the core curriculum. This approach to curriculum development was first received with some degree of optimism. It was even seen by some writers as providing a strong basis that would hold the profession together as it helped it cope with changes occurring around it [7].

As the stream of research in the library and information field is increasingly oriented towards curriculum development, the core curriculum as advanced by Unesco [8] became increasingly the focus of criticism where writers deplored the excessive emphasis on technical courses. There are found to be traditional in content, narrow in scope, inflexible, unadaptable to change and unresponsive to the needs of the profession. At the College of Librarianship Wales' workshop on curriculum development in 1977 [9], this criticism of the core curriculum was made very strongly. For instance, Needham observed that "the core image has remained unchanged for a quarter of a century. Despite terminological shifts the structure is still tripartite, the boundaries substantially the same. In crude terms, the message is what it always was, that indexing, bibliography and management are at the heart of librarianship" [10].

In another contribution to curriculum development, Needham again comments that:
"Continuing espousal of this trinity prevents the proper recognition of people and requirements. Inevitably the needs of those served by the systems of indexing, bibliography and management are viewed obliquely (insofar as they are viewed at all). Professional education thus fails to promote a sense of service" [11].

These negative approaches to the curricula of library schools have inevitably implied that a new approach to the curriculum development process is needed. As a result writers began to introduce new ways of planning library education curricula. Needham suggests three avenues:

"First, people and their requirements must somehow be made real to students. Second, means must be found for ensuring that students undertake the creation and analysis of systems in the light of that reality. Third, existing systems must be presented not as the absolutes they so often become when they themselves are the core, but, on the contrary, as human responses to particular and often complex situations, always bound to their historical context and therefore provisional" [12].

The curriculum became a matter of aims and objectives and the utilisation of a combination of methods to justify its relevance to society, students and the profession. Therefore the curriculum is increasingly being regarded as a system of interrelated tasks designed to achieve certain ends and writers started to apply appropriate educational theories to explain the system's approach to library education, justifying the elements involved in the design of its curriculum. Based on such an approach, Kashyap suggests the following:
1. Determination and formulation of:
   a) overall objectives of education;
   b) level-wise objectives of the curriculum;
   c) subject-wise objectives of the curriculum.

2. Identification, selection and specification of the core elements of the curriculum namely:
   a) subject content to be learned by student;
   b) teaching, learning strategies (methods);
   c) assessment procedures i.e. how can the extent of learning of a student be measured;
   d) instructional materials.

3. Determination and formulation of objectives and functions of the core elements.

4. Establishing interrelation among the core elements.

5. Implementation and monitoring of the whole curriculum system.

6. Development of a mechanism for periodic reappraisal of the whole system [14].

Burrel lends weight to this system approach in his doctoral thesis which investigated curriculum development in British library schools. He proposes a system approach of six (6) phases:
1. The initial selection of aims, goals and objectives of successive levels of specificity, expressed in terms of desired behaviours;

2. The selection of such learning experiences as are likely to help students to attain the chosen aims, goals and objectives;

3. The selection of suitable subject matter content as a vehicle for the chosen learning experience;

4. The organisation and integration of learning experiences and subject matter content to sustain the learning and teaching processes in the classroom, i.e. in a learning environment;

5. The planning of certain other elements of the educational process:
   a) learning and teaching methods;
   b) assessment of students' achievements;
   c) selection or adaptation of plant and facilities;
   d) preparation, deployment and continuing education of staff;
   e) recruitment of students;
   f) the follow-up of ex-students;

6. The planning and implementation of the continuous evaluation and modification of the whole system [15].
Based on his approach Burrel made a set of recommendations of which the following one is pertinent to the growing trend which relates the curriculum to the profession and the environment it serves.

"A vocational curriculum must be designed to produce, not a practitioner who merely retains a given body of knowledge, but one who is the right kind of person for the activity, possessing appropriate attitudes, behaviours and complex intellectual skills of a high order and who is eager to perform effectively as a librarian in any context" [16].

Another interesting approach to curriculum development, Johnson and White [17] applied the cognitive style to tasks' analysis. The authors' idea is to match cognitive styles and learning situations to identify educational needs for library students. On the surface, it is clear that at least one major element of disadvantage in the cognitive approach is that the lack of a proper methodology for using such an approach to curriculum development in library schools.

Other writers, Dosa [18], Havard-Williams [19], Moore [20], Perenou-Soenen [21] in contributing to the curriculum development process, related it to manpower planning for the growing marketplace of libraries and information and its implications for education programmes. Some of these authors relied on job titles advertised in local papers and their findings indicated that information professionals are needed outside the traditional fields of libraries and information, i.e. in business and industry. They therefore recommended that library schools should change and/or expand their curricula to meet the needs of this new and growing marketplace.
This, undoubtedly, requires qualitative as well as quantitative data on job specifications and work characteristics of future professionals and their analysis in order to determine the educational changes, and translate them into relevant courses for inclusion in the curriculum. This approach certainly reflects the current trend towards relating the curriculum of library education to the tasks and functions of those produced to discharge their duties in a variety of circumstances. On balance, this approach seems to widen the route to social and professional relevance of the curriculum, but because it is restricted to job titles, it lacks consistency in extracting the new knowledge and experience required of future graduates.

Whatever the debate, it appears difficult to find a universal approach to the curriculum development process. Those involved in this process, however, professionals as well as library educators, agree that there are many factors that can influence the whole process of curriculum development, i.e. from planning to implementation.

5.3 FACTORS AFFECTING CURRICULUM DEVELOPMENT

The review of the literature reveals that curriculum development in the field of library education is part of a larger spectrum of educational studies influenced by the environment in which it operates and from which originates the changing nature and practice of the library profession.
In his contribution to curriculum development studies, Wilson identifies three categories of factors:

1. Preconditional factors i.e. those factors that create the need for curriculum development, for example, the creation of polytechnics and other establishments;

2. External or environmental factors, such as the needs of the market, the quality and background of potential students, general professional opinions, research trends and overall time constraints;

3. Infra-organisational or internal factors such as available teaching skills, internal competition for time and associated power struggles, general knowledge of the field and trends within it and research [22].

Colson examined library education in relation to its "social reaches". His views on curriculum development rest on the idea that one should

"develop a curriculum for a variety of employment situations now and in the near future and remain constantly alert to the development of conditions which require change in those curricula" [23].

The author identified two major categories of conditions:
1. Those having an indirect effect on libraries i.e. industrialisation;

2. Those conditions that will affect libraries directly and that will certainly have direct implications for library education too [24].

He then suggests that such conditions may be identified as:

1. The social position of the library;
2. The work of librarians;
3. Characteristics and nature of library schools;
4. Technologies of information [25].

In 1983 a British library report [26] found that library schools were reappraising their education programmes in the light of social and technological changes.

A more recent report of the Library and Information Services Council [27] looked into the details of technological changes and their likely impact on library and information work, including their implications for library education. The findings of the report revealed that:

"Significant and sometimes rapid changes in the economic and social environment are making and will continue to make an important impact on the scope and organisation of library and information services and therefore on manpower requirements and on professional education and training" [28].

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The ensuing report suggests five areas to guide change in library schools' curriculum. These are:

1. Economic factors;
2. Social and demographic factors;
3. Political factors;
4. Educational factors;
5. Technological developments [29].

Interviews of several library professionals and educators (for reference see Chapter 1, Methodology and Appendix 4) point to the same trends. Furthermore, there is agreement that these factors should be justified internally and externally to serve as a focus for emphasis on changes in the curriculum.

The following model summarises the general environmental factors which influence curriculum development:
5.4 ELEMENTS OF CURRICULUM DEVELOPMENT

Various definitions suggest that the curriculum development process as an education activity should include the identification of objectives; the selection of content; the organisation of teaching/learning methods; assessment and evaluation of graduates. Clearly an interaction of these elements and their relationship with the educational and professional environment will provide the logic within which curriculum development can be matched with its social environment. It certainly helps establish the rational insights into library practice and translate them into educational objectives and then into specific subject knowledge to produce the new content which emanates from such a matching of objectives.
Based on this, it can safely be said that library education objectives derive from the environmental factors mentioned earlier which should be reflected in the schools' curricula. This explains the importance of library schools objectives in the design of their curricula. For instance, the IFLA standards for library schools emphasise that

"the school should have specific objectives derived from its goals, which are clearly stated in a formal document" [30].

There are implications that library schools may very well have general and specific objectives but, whatever the objective, this should be stated in the light of its appropriateness to the general environment surrounding the library school and the profession. The idea of having stated objectives should not be taken to mean rigidity and inflexibility in the curriculum. It is used as a main focus for clarifying the fundamental issue of relevance of the curriculum. So curriculum objectives should be regularly re-examined and revised whenever environmental factors indicate that change is due. By definition education means growth and growth has no limit, so the educational objectives are subject to continual reorganisation and evaluation to keep pace with the environment in which they are stated.
5.4.1 Content

Library educational objectives cannot be attained unless those responsible for curriculum development select and design an appropriate content for the school's curriculum. In other words identify a number of courses and present them in an organised and unified field of knowledge which coheres with practice within and outside the school. Decisions about the choice of the content of the curriculum are influenced by the nature of the environment in which the schools operate. There is overwhelming evidence that what is taught in library schools should be chosen with reference to the nature of the community, society and the profession they serve. For instance, the importance of libraries in society cannot be determined unless its expected effect on graduates is seen in their attitudes towards libraries. Conversely, a content designed with the aim of acquiring simple facts fails to be useful when critical and imaginative thinking is required in order to cope with difficult situations.

Thus, in recent years the meaning of curriculum has gone beyond listing course titles, and content has taken new directions. This point is taken up by King and Griffiths [31] in a recent study which focussed attention on three dimensions upon which the selection of a content can be achieved in a given environment. They offered one possible list of logically distinct elements that may constitute the content of library education curriculum, these are knowledge, skills and attitudes [32]. They also provided a framework for defining and
implementing each of these elements according to the level of study and performance. It can be said that it is the kind of approach to curriculum content that may produce a curriculum blueprint. The authors went as far as evolving model curricula for different levels of education according to different levels of practice.

A survey of the literature reveals that library and information professionals are now less in favour of a core of compulsory courses in the content of library schools' education programmes since they see such a core as raising issues of inflexibility and irrelevance. Views against the core were expressed at the 1977 workshop [33]. There are examples of controversy in the literature as to whether or not there have been changes in the curriculum content. In the view of Dudley there have been changes in library schools' curricula, most of which are unrecorded outside the official documents of the schools [34]. On the other hand critical opinions argue that

"changes have been very slow and most of the time superficial rather than fundamental. They have been cyclical under the guise of a new name" [35].

While this assertion may be true, there is agreement that libraries and information are an integral part of a general communication system relying on science and technology as a basis for integration. This theme is well explored by Shera [36] who suggests criteria for making appropriate decisions concerning the content of the library schools' curricula as it relates to the communication systems. There
is wide evidence that these have improved so much and that their impact on library education and library practice are great. This means that changes in curricula are inevitable.

Several writers in the profession in contributing to the analysis of curriculum development have concentrated on new technologies i.e., information technology, telecommunications, computers etc and their implications for the selection of content. For instance, Davinson [37] traced the influence of information technology on British librarianship. He found that British librarianship had been transformed, and implied change in curriculum content so that new graduates keep pace with changes in library practice.

Recently, Brittain [38] has reported that library schools cannot afford to ignore these developments or else

"in the long term, library schools' graduates will find it difficult to penetrate the emerging market unless they can bring more to bridging the gap between computer scientists and information scientists than an ability to evaluate software" [39].

Brittain, in this paper implies that there is a need for an in depth knowledge of computer technology, i.e. involvement in research, development, design, operation and implementation of expert systems for database design and operation. To bridge this gap the author proposes to split the curriculum content into two categories of courses.
"Some courses catering for those who will just be users of systems and technology, others (which may be more the province of computer studies) catering for those who will be designers" [40].

In an overview of the emerging market for information professionals and its implications for education programmes, Courrier refers to a number of surveys that signal new professional roles in the information industry and pointing to changes in education programmes, generated by the technological developments, observes that

"clear relationships between computer studies and information science must be established, as well as functions and responsibilities attached to each of these domains" [41].

Courrier agrees that technological developments have transformed the information profession but, he rejects the idea of library schools producing computer experts.

"One should avoid to think that computer specialists will one day be turned out by library schools" [42].

Similarly several writers recognise that the content of library schools' curricula should be more geared towards information technology, while they reject the idea that elements of the traditional core will ever disappear completely for the major reason

"that computer experts, system designers, mass communications have never been part of library schools curricula" [43].
McGarry points out that

"like all periods of change and transition, there is never a total discontinuity; older phases tend to merge or co-exist, sometimes they even thrive" [44].

In his British Library report Brittain found that

"many commentators are against teaching a great deal about the technological aspects of computers and information technology; an appreciation of the technology is claimed to be sufficient. In the event, serious constraints may well ensure that the technical aspects of optical disc technology, chip technology, the future generation of optical computers ... are not included in library schools curricula" [45].

An alternative favoured by many library educators is to select, for inclusion in the library school curriculum, that part of information technology that gives graduates a good grasp of new technologies to make them aware of and understanding their role in an environment so much altered by the use of and application of these technologies to all walks of life. Most important is to select elements of the curriculum content that makes the former flexible, innovative, reflective and anticipative [46]. Saunders [47] too recommended that education programmes should be flexible to adjust to particular situations and hospitable to accommodate new changes in the curriculum content.

5.4.2 Educational Methods

The content, material facilities and faculty expertise will dictate the methods to be used for conveying knowledge to students. The
importance of the educational methods stems from the belief that the content of the curriculum cannot be learned efficiently and absorbed by students unless it is presented in a systematic and coherent manner. A point of focus, is that inadequacy of teaching methods will handicap learning and may cause undue wastage of the teachers' efforts and the schools' resources. It is equally true that variations in teaching methods will create more learning situations for students. For example, the teacher is assuming more and more a supervisory role rather than dictating facts to memorise. He/she is expected to create the appropriate learning situations for students helping them to learn by discovery not by memorising facts.

A classic work of reference is the Unesco manual by Sabor [48] in which he explores different teaching methods and their advantages for learning. Despite its out-datedness, Sabor's work still provides a good background on which to base the design of educational methods. The author insists on manpower facilities in library schools where faculty expertise is "sine qua non" to successful results.

"As far as the professor is concerned, his task can only be to provide orientation and guidance, to arbitrate and to synthesise. Accordingly this requires that the teacher have a sound training in, and a great experience of, creative work" [49].

A statement which lends weight to the argument in favour of using a wide range of instructional methods is made by Sharif
"since individuals learn in different ways, the pattern of activities and events, resources and methods needs to be varied without losing sight of the objectives of the course. It is important that the supportive elements (facilities, equipment, comfortable setting, learning materials) are carefully coordinated and creatively used by the teaching staff to enhance the learning opportunities being developed in the course" [50].

The importance of the use of a wider range of instructional methods is endorsed by Cook who argues that:

"the aim (of professional education) is to produce workers who can use their knowledge of theory and practice to evaluate systems, criticise past achievements and generally see where they are going. They should be able to solve problems and produce workable and economical plans of action; they should also be able to work together as a team for the common good. Teaching styles in the training schools should therefore reinforce these attitudes. Seminar methods, practicals in which teachers and students work together, research enterprises in which students are involved, are suitable methods and approaches" [51].

5.4.3 Evaluation of the Curriculum and Students
Evaluation exerts a powerful influence on the whole process of curriculum development to reflect the aims and objectives of library education. It includes all stages involved in curriculum development i.e. from setting objectives to assessing students' achievements. Burrel clearly explains that:

"Evaluation is a blanket term, covering all parts of the process and leading to the clarification of important educational questions regarding the achievement of the students in terms of their initial and final desired abilities, knowledge, attitudes, and other factors: the making of judgements based upon the available evidence about the overall efficacy of the system" [52].
On the point of assessment of students, Kashyap observes that it

"should not be done with a purpose to establish or to bring out failures on the part of the pupil (and in the process discourage him) but with the view to bring his deficiencies so as he overcomes them and makes progress" [53].

Generally speaking, evaluation is necessary to check whether the results obtained match the objectives stated and make the required changes and readjustments to reach the targeted results and ensure that graduates absorbed the principles of library science in preparation for future positions in their working life.

SUMMARY

The survey of the literature has revealed some semantic difficulties related to the definition of curriculum development. This is partly attributed to newness of the subject as an area of research in the information field. Educators and professionals alike agree on the major factors influencing the curriculum development activity. The whole process is in a form of a continuum viewed as follows:
Within this process it is possible to review library education theories with current practices in the field and ensure that changes are made in response to internal and external factors affecting libraries and information as an integral part of the environment in which they operate.
REFERENCES


12. Ibid, p.15.


19. HAVARD-WILLIAMS, P. In: Manpower information planning, op cit.

21. PERENOU-SCHENON, H. Le marché de l'emploi des professions de la documentation, Analyse de l'offre à travers les annonces diffusées par la presse et les centres de formation, These de doctorat science de l'Information, Paris Université de Droit, d'économie et de sciences sociales de paris, 1984.


24. Ibid. p.93.

25. Ibid.


28. Ibid.

29. Ibid.


32. Ibid, pp.31-33.


39. Ibid, p.211.


42. Ibid, p.5.


46. CRONIN, B. Interviewed by the researcher, 1988.


49. Ibid, p.57.


CHAPTER 6
THE SURVEY

6.1 INTERVIEWS: THE METHODOLOGY

The use of unstructured interviews utilising open ended questions, provided for open ended discussions, encouraging participants to be analytical rather than descriptive in their answers. This provided the right framework for critical comment, and in practice minimised biased answers.

C.H. Busha and S.P. Harter write that "unstructured questions allow respondents to reply freely without having to select one of the several provided responses" [1]. They recommended this method for studies which set out to examine various dimensions and facets of a problem for which proper hypotheses are not posed and tested scientifically. Their limitation resides in the difficulty of analysing the answers. The open ended interviews are chosen to allow the participants to express freely their opinions and discuss personal views. For this purpose three sets of questions (Appendices 1, 2 and 3) were used as an "aide memoire" to guide the discussions and to avoid losing track of the main theme of the study. The survey sought to find out the problems facing library education in Algeria and detect gaps in the curriculum as perceived by three categories of participants. The sample comprised lecturers, students and practitioners from the three universities: Algiers, Constantine and
Oran the three Institutes of Library Education are in operation. The questions addressed themselves to the type of information required in connection with the development of a curriculum for the contemporary and future education of library and information workers. However as one lecturer put it, it should be "a curriculum that meets the needs of the profession as practised in Algeria not one that concerns itself with ideals".

6.2 ANALYSIS OF THE INTERVIEWS

Here again Busha and Harter's content analysis is used to analyse the content of the participants answers

"content analysis is aimed at exactness and the elimination of bias in the investigative process; its methods are employed to decrease the degree of subjectivity inherent in procedures designed to analyse or evaluate the contents of materials" [2].

Analysis of the participants' interviews is carried out so as to make answers more explicit and use them as pointers for curriculum development by breaking down the participants' opinions into pertinent units. The former fell into three main categories each related to:

1. Teaching and learning methods.
2. Curriculum content.
3. Facilities.
These will be discussed under separate headings. It is hoped that with the analysis of the participants' answers, it will be possible to have a good indication of the type of change needed in the curriculum.

6.3 Teaching/Learning Methods

Interviewees were unanimously critical of current teaching/learning methods. Such criticism focused on a lack of structure and consistency, arguing that the methods used in the library schools do not encourage innovation or participation. It is believed that this is not the result of students lack of expertise in the subject so much as the absence of organisation and methodology in the teaching. As a result, there appears to be a great amount of duplication of knowledge in some areas and an equal lack of interaction between lectures and tutorials which students find repeat each other instead of complementing one another. They complain about the lack of a sensible mechanism for conveying knowledge to them. They argue that the study pattern is distorted by the absence of a mechanism for deciding what is a lecture and what is a tutorial, and deciding priorities between methods of teaching and learning activities in each case.

6.4 Curriculum Content

For students it was obvious that knowledge transmitted to them is very general and vague, lacking in the practical elements. All participants wished for more hands-on experience right through their educational life.
It was interesting to hear one finalist arguing that the curriculum content is quite consistent and diversified to transmit the principles of the library profession, but the whole problem lies in the method by which it is transmitted to the students; and that this renders it irrelevant to their needs.

Lecturers and heads of the institutes believed that the objectives of library education are not well defined. As a result the content is not coherent and therefore the knowledge presented is vague and fragmented. Literally this means that library educators are very much aware of the lack of correlation between the curriculum and the level of practice. One general argument expressed in support of this opinion is that the curriculum is too theoretical and lacks an in-depth analysis of the Algerian library situation. It concerns itself with ideals to the detriment of practical considerations. One lecturer said

"the irrelevance of the curriculum content is mainly due to the wrong approach of curriculum design, and this is all reflected in a content heavily slanted towards non-library courses" [interview]

This is a fair criticism from a viewpoint of those called upon to teach a curriculum designed for them by a Professor of History from Belgium, who had very little, if any, knowledge of the Algerian environmental conditions which the curriculum is supposed to serve. However, this criticism is rather short sighted, because no one pushes the issue further to suggest for instance a methodology for curriculum
development. Besides every Institute struggles separately but no coordinated efforts are deployed to raise the authorities' awareness to this need for a crash development programme. The former should bring changes in the library scene. It is necessary to argue the case for the need for qualified library and information workers as a prerequisite for the development of an information infrastructure and this may be integrated with changes in the library/information curriculum.

Another lecturer-practitioner observes that:

"our curriculum is designed by a Belgian who knew nothing about our needs and capabilities. He proposed a curriculum overcrowded with non-library subjects, so called 'general culture', which hinders the profile of the profession". [Interview]

In fact, this lack of strategic planning of the curriculum attracts much criticism from all areas of the profession; students reject the ideas of spending too much time studying these non-library subjects, lecturers think that the curriculum should concern itself more with library subjects and less with history and sociology. Practitioners express their dissatisfaction with the provision of generalists where knowledge is quickly made obsolete by the technological developments occurring in libraries and information services, thus changing the face of the profession. From the opinions gathered there are two major reasons for this:
1. The curriculum does not show the correlation between "general culture" subjects and library subjects;
2. The curriculum does not show the correlation between theoretical knowledge and practice.

This is undoubtedly true because the curriculum does not show its relevance to the practical situation. What is needed is a group of committed professionals and educators who are able to sit back, take account of all issues in library education, coordinate and reinforce its objectives so as to tie up with the objectives of national development and provide a synoptic view of what is to be achieved by curriculum development in Algeria.

Against this background, the IFLA standards have to be reconsidered underlying the view that "each country should decide for itself what kinds of librarians and information specialists it needs and having decided that, what kind of training such persons ought to have" [3].

In the case of Algeria its form of library education was devised for it. This explains why the curriculum, provides graduates who are narrowly educated, neither properly equipped to enhance the profession, nor able to stand the challenge of their counterparts in other parts of the world.

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6.5 FACILITIES

Participants assessed human facilities, i.e. faculty and other supportive staff and material facilities, including all facilities that are needed to support the learning/teaching activities.

From the analysis of the interviews, it is revealed that:

"It is important that quality in education involves first and foremost good teaching, as well as suitable curricula and good teaching materials, methods and techniques. Therefore the quality in education depends to a large extent on the teacher, in the broadest sense of the word - his training, his work, his continued education, status and welfare". [4]

The participants stressed the need for well trained teachers to discharge their duties competently. Students note the lack of currency of their teachers' knowledge. Lecturers too recognise these drawbacks, complaining that they are not given the opportunities to update their knowledge and improve their teaching activity.

As for the material facilities participants focused their attention on the lack of library material to expand and enrich what they learn in the classroom. They also expressed the desire to use other non-print materials, to use them now for learning purposes and later in their work for handling information efficiently. The participants have again urged the need for good library materials, relevant collections, enough textbooks and periodicals, as well as other materials to support the teaching and learning activities.
There is agreement on the difficulties that are distorting the teaching/learning pattern. These are:

1. A lack of suitable textbooks and teaching materials, especially in Arabic;
2. Lack of laboratories and A/V materials for demonstration;
3. Insufficient field work facilities;
4. Lack of modern teaching techniques.

These are also identified by lecturers as the major handicap to any attempt for curriculum change.

At this point, most answers were presented in the form of criticism of what is studied and how rather than what is to be studied. Few suggestions for new courses were made. In this context, there are significant relationships between the students' and lecturers' opinions. Theoretically they show commitment to curriculum development, but they are at pains to point out that political ideologies are more important and limit their desire for change. This is because one hard fact remains: The government's major priorities do not seem to include attempts on improving library education in the country. This does not seem to be a major consideration in the development of information infrastructure, and even less important in national development. Although attempts are occasionally made towards this end.

Summarising the opinions one can only relate the evidence that emerges from the participants' answers on how they view curriculum development
in the light of the evolving circumstances, and how these affect library and information education. The point of focus is the need for a curriculum to relate to and reflect the local problems of the profession, preparing graduates for the fulfilment of their professional duties in any circumstances of practice and enable them to take up new challenges. The need to make the curriculum nationally relevant and internationally acceptable depends on basic issues that must be resolved before engaging in curriculum development:

1. Appreciation of the need for change;
2. Willingness of the authorities to cooperate with those responsible for library education;
3. Committed participation of all parties involved in the development of libraries and information;
4. Institutes of library education need to be in agreement and present a common front.

6.6 FINDINGS

The survey method, having already been discussed, this section is concerned with the analysis and interpretation of findings. When analysing the participants' answers, the need to review the curriculum became even more obvious. This can be said to reflect the search for social relevance in the curriculum which is becoming more and more the concern of education authorities. One lecturer directly suggested this when he reasoned that:
"Library education should concern itself with the situation of the profession in Algeria instead of preaching ideals out of touch with the practical situation" [Interview]

The survey shows that the process of curriculum development in Algeria requires that learning should be organised around what the profession needs now and where it is going.

The survey also demonstrated that library education is expected to develop close links with the socio-economic sectors as well as with other disciplines in a unified programme of study. This in itself reflects the pervasive nature of librarianship which should be reflected in its curriculum. In these circumstances many final decisions and plans for learning experiences and activities should rely upon a maximum knowledge of society and its information needs.

Library education is new phenomenon in Algerian universities. It is therefore expected that enrolments are small and choice is not made on a proper understanding of what is involved in library studies. A genuine need to be a student and sheer curiosity are the reasons for choosing library education. It is acknowledged that schools need to sell themselves better to attract more students on the basis of motivation and appreciation of this new discipline.
6.6.1 Teaching and Learning Methods

In examining this issue it is acknowledged that the teaching and learning methods are "chalk and talk" methods. The reasons for this are many; The whole Algerian educational system does not make provision for innovative methods; library education suffers from the lack of facilities to try out modern teaching techniques. Implicit in participants answers is a belief in the potential of motivating students through varied teaching methods. They believe that the use of different media and a variety of pedagogical strategies is needed. It is also clear that "hands on experience" is seen as an area of great importance. Equally too there is a need for coordination of learning in the classroom and the situation outside the classroom. Students wish to enjoy some independence to develop their personal fulfilment in learning. The degree to which such independence is possible, however, depends on the provision of facilities and changes in the educational system which under the present circumstances allows very little, if any, independent learning. Such inadequate teaching results in the inability of graduates to relate their work to what they have learned.

6.6.2 Curriculum Content

In determining what subject areas need improvement, updating and strengthening, answers revealed that cataloguing, classification, information sources and library management were given priority for improvement whereas information science subjects are placed in second position, and are perceived as only being required at a general level.
The subjects known as "general culture" appear to be the least favoured in that all participants demanded their reduction and replacement by courses relevant to practice. At this point the identifiable pattern of library education that emerges is one that emphasises the traditional core of studies. This may be explained by the newness of the discipline which is seeking recognition in the theoretical foundations of its core curriculum. Participants affirm the importance of information science courses, although their perception of information science is almost solely confined to library automation and computer skills for online retrieval.

Lecturers do not only emphasise the benefits of new technology for library services, they also indicate their concern that students should be given opportunities to use the equipment and be able to reflect upon the possibilities it could offer in information handling and be alert to the negative effect it can have on the work i.e., in the case of breakdown and other equipment problems.

Lecturers expressed continued support for a core of studies that provides students with principles and theories common to all information work now and in the future. A case in point is that this core should be mastered by all students in the licence programme. Suggestions are made for specialisation, at postgraduate level, in subjects defined by areas of need in library practice. Students call for more professionally oriented education arguing that there are too many non-library courses in the curriculum which are diluting the
meaning of professional education. There is general agreement in favour of technical subjects as opposed to academic ones.

Local studies were mentioned by several students who felt the need to focus on special features of a locality or a region, providing learning based on that locality. It should be noted that such suggestions were made by students living in special places with historical and geophysical characteristics and who are keen to make them known to the public mainly for tourists information.

With regard to subjects not covered by the curriculum and that should be included, the following were stressed:

1. School libraries.
2. Libraries in society.
3. Psychology and sociology of education (for postgraduate programmes).
4. Research methodology.
5. Psychology and sociology of reading.
6. Information sources in Arabic and Islamic studies.
7. Communication skills.
8. Users studies.
9. Computer skills.
10. Foreign languages.
11. Algerian information sources.
As one can notice, apart from subjects 7 and 9, Information Technology is not seen as high priority in Algerian library schools, and the reasons for this have already been discussed. However, there is a reasonable amount of interest on the part of the staff in introducing more new knowledge into the curriculum. Students also display a general interest in learning the modern techniques in library practice generated by the technological developments in the field.

The fact that the traditional core is still the point of focus in Algeria may lie, as one lecturer said, in the absence of the words 'information science' in the names of the library schools. Other reasons are that the small number of libraries using the new technology makes it practically uneconomic for library schools to concentrate on IT in the curriculum, just to make it look in line with the new trends. A second reason which is culturally significant, may be the semantic approach to information science in Algeria where it means journalism and mass communication. Such an approach keeps library education in Algeria at a very traditional level. It should be noted that as far as the change of names, library schools are already calling themselves Institutes of Library and Documentation.

On the structure of library education, answers indicate a concentration on the licence programme as a first qualification. The magister programme is required by the three schools being looked upon as a means of developing research as well as producing qualified teachers, so much needed. The technicians and postgraduate diplomas
are the least favoured; these are said to reflect the mediocrity of the profession, a concern shared by all participants who identified the need for highly qualified staff to develop the profession.

6.6.3 Facilities

Two major points were revealed: the lack of qualified staff and poor library literature. Improvement in these areas were seen as essential for curriculum development. Comments on the teaching staff made by students include the following:

- The teachers are not qualified.
- Their knowledge is out of date.
- They only use textbooks and do not try any other method.
- They do not do any research and restrict themselves to what is available; they are not creative.

These comments are not unexpected because the training of teachers is limited to taking a degree so their teaching tends to be limited to dictating their lecture notes to students. It is significant that there are a number of vacancies which heads of library schools are unable to fill because of the lack of qualified teachers. Expatriates are very difficult to attract by reasons of low salaries. Equally too the lack of good library collections and equipment makes teaching subjects other than traditional librarianship very remote. Other facilities make the whole discipline less favoured and unpopular. For instance, it is characteristic of library schools to be geographically
isolated and face the possibility of not integrating fully with the rest of the teaching departments on the main university site. Surely the impact of such isolation is already seen in the lack of recognition of the school within its host institution.

Participants were offered the opportunity to comment openly on the situation of libraries and library education. As a result many interesting suggestions were made; the following are thought worth reporting here.

- Establishment of a library association to coordinate between library schools and libraries.
- Keep a harmony between the curriculum and the profession.
- Develop school libraries and educate users at their earliest learning stage.
- Develop library facilities for the masses (schools and public).
- Provide for continuing education of teachers and practitioners.
- Provide for research and publications in the field.

6.7 RECAPITULATION
In summarising the participants answers, certain conclusions are inevitably obvious.

1. Curriculum development is acknowledged but not considered as necessarily the shift towards information technology.
2. The pattern of library education is one that will ultimately produce generalists unprepared to engineer any effective change. Change is required but a critical approach to it is implicit in the lack of facilities.

3. The future of the profession is surrounded with uncertainties from all fronts owing to the lack of defined objectives of the education system serving it.

4. Higher qualifications and subject specialisation are expected to play a distinctive role in the development of the profession. One crucial factor for curriculum development is the availability of qualified teachers to introduce and teach new subjects. It is established that the greater the number of qualified teachers in information science, the easier the change in the curriculum.

5. On the other hand, it is agreed that curriculum development in Algeria does not exclusively mean a bias towards information science but that the development of traditional subject areas is demanded. However, this should not be regarded as the determination of the schools to train only librarians. Discussions with participants, especially lecturers, confirm the need for information science courses, but beyond this determination one major question remains: how long is it going to take the Algerian library schools to introduce such courses? The
answer to this question rests on the supply of facilities needed for a smoother shift in the curriculum.

6.8 TEACHERS' PERCEPTION OF CURRICULUM DEVELOPMENT
It is generally acknowledged, by teachers, that the primary purpose of curriculum development is to coordinate library education with the profession as it is now and provide for future developments. Library education can have a profound influence upon the development of the profession and the development of society at large depending on what is taught and how it is taught.

Curriculum development presents a wider scope for the recognition of libraries and library education, providing that well defined objectives of the curriculum can fully integrate into the national development objectives.

6.9 STUDENTS' PERCEPTIONS OF CURRICULUM DEVELOPMENT
Students argue that the present curriculum is unconnected to practice. They expect that curriculum development will enable them to make meaningful associations between their training and the working situation.

They believe that the curriculum should be student-centred by reflecting their individual needs to motivate them. They also believe that the curriculum should show its practical relevance to the profession and to society in its subject areas.
6.10 PRACTITIONERS' PERCEPTIONS OF CURRICULUM DEVELOPMENT

Practitioners look upon curriculum development as the best way of introducing innovations in the way the work is carried out in libraries. A number of them are concerned about the schools' ability of planning and implementing subject areas directly connected with practice. They think that the lack of cooperation between practitioners and teachers is the biggest handicap to curriculum development.

The results of the analysis of the interviews highlight several issues. In general there is a need for:

1. A curriculum which emphasises the importance of holding the interest of the students and utilising varied teaching methods to motivate their learning in and outside the classroom.

2. A curriculum based on social processes where environmental conditions and social cultural problems are the focus around which learning should be organised.

3. A curriculum that gives attention to the sequences of the profession's development in relation to other socio-economic sectors.

4. A curriculum which emphasises the understanding and application of the principles for problem-solving rather than the mere acquisition of factual knowledge.
5. A curriculum which shows the unity of knowledge and focuses on the cross links between library and non-library subjects, bringing to light the interdisciplinary nature of librarianship.

6. A curriculum which shows its relevance through provision of subjects based on students' interests and professional needs, thus encouraging changes in the profession.

7. A curriculum which gives individual courses greater intellectual content allowing discovery methods and provocative thought.
REFERENCES

1. BUSHA, C.H. and HARTE, S.P.
   Research Methods in Librarianship Techniques and Interpretations.

2. Ibid.

   pp.209-223.

4. SHARIF, A.
   Library Education in Arab Countries.
   PhD thesis, Case Western University, 1980.
CHAPTER 7
CURRICULUM DEVELOPMENT: THE CASE STUDY OF ALGERIA

7.1 SOURCES OF CURRICULUM DEVELOPMENT IN ALGERIA

Curriculum conceptualisation had its foundations in the era known as the rise of Islam. Basically Islam sees the individual as a component of body and soul. It stresses the wholeness to guarantee unity and integration. The education of individuals therefore requires the understanding of the basic characteristics of Islam i.e. unity, wholeness and integration. To understand this requires familiarity with the Holy Koran. Fluency in Arabic, the language of the Holy texts is a necessary tool for grasping and discussing the advents of Islamic education. In agreement with this philosophy the curricula of pre-colonial Algeria were designed to assist students understand the Holy Koran. To this end their contents consisted mainly of religion, grammar, logic and astronomy. The curriculum remained essential concerned with the development of the human mind, to understand the universe and dwell on the world hereafter. With the colonisation of Algeria the education system moved away from this concept. With the assimilation policy of the 1840's this concept has been completely abandoned giving way to the European concept of education. With this a new approach to curriculum development, with subjects such as: classics, French, mathematics, history, geography, aiming to prepare those who attended schools to become the elites of the society has been introduced. This emphasis remained until 1970.
when educational institutions were being criticised for being out of touch with their environment. Influenced by strong nationalist ideologies, many argued that education should be used to promote nationalism. It should promote Arabo-Islamic culture and civilisation and Algerian customs. Also the concept of elitism was seen as a factor which completely neglected the practical and skill-oriented education concentrating on a theory-based one. This called for change in the education system and curriculum on a large scale.

7.2 CURRICULUM DEVELOPMENT ACTIVITIES IN ALGERIA

Curriculum development in Algeria's evolving environmental conditions, came to be regarded essentially as an approach to education development for the production of supportive manpower for socio-economic sectors. The environmental factors examined in Chapter 2 are crucial in developing a curriculum which meets Algeria's national objectives. Realising the importance of curriculum development to achieve these objectives, the educational authorities took a number of steps forward in terms of curriculum changes mainly in primary and secondary education, changing both structure and content. Thus, in 1962 the Arabic language became a compulsory subject. Also, the history and geography of Algeria, social studies, and the work of some well known writers became part of the curricula at all levels of education, while less emphasis was put on the inherited French curricula, which were being regularly revised to adapt to the independent Algeria.
In 1978 there was a fundamental change in education curricula at primary and secondary levels. The objective was to adopt an integrated curriculum in order to create a meaningful link between primary and middle school programmes. In pursuit of this, the education authorities concentrated on building stronger and more locally relevant courses from grade 1 to grade 9. This policy was first tried in a few sample schools in the major cities, and once modified accordingly, by the 1980s, all schools were transformed into what is called "fundamental schools" with a solid core of studies in science and technology and religious studies and with the Arabic language as the sole medium of instruction. In order to provide the knowledge of the environment and to infuse the spirit of creativity and scientific approach and its application to problems which confront the nation, the French language became a compulsory first foreign language to be taken by all pupils, while English came later as a second foreign language. Conventionally, the sources of these changes are the historical, political and ideological orientations of the country. With regard to higher education the organisation of conferences, workshops and seminars to discuss education programmes at local and national levels to reflect the cultural, social and economic needs of the country, have contributed to curriculum reforms in the area.

As a political strategy, probably the most obvious need for curriculum development in Universities is seen in the creation of the Comites Pedagogiques Nationaux les CPN. These are established with
the objective to look into and assess the educational matters in various fields. This is believed to be the best way to help educational institutions produce responsible and skilful people who will participate in the economic development of the country. One of these CPN's is the CPN de documentation which is charged with the task of discussing library education and recommending reforms. In this particular case, however, discussions tend to centre around problems of the profession rather than those of education and even less attention is given to curriculum. There seems to be an organisational problem, although progress of the CPN's has not reached a point at which results could be objectively evaluated. However in library education the CPN's debate could be greatly enriched if the present mistrust between library educators and the professionals is overcome to give way to more coordinated and cooperative activities.

Environmental circumstances became a significant feature in planning education curricula, as they served as a basis for forecasting and introducing changes in education programmes. Thus the sociology, politics and religion of Algeria and other courses of direct relevance to everyday life were added to the subjects taught at secondary schools and universities. These courses were introduced with the intention of taking into account the changing needs of society, a society which had altered radically as a result of the oil boom, whose revenues were used to develop the country. It would have been supposed that the availability of teachers and library materials
would precede reforms in the curriculum, as regards to Arabic language and local features.

Clearly one major weakness in this whole process is the neglect of those two factors to back up these new courses. It is obvious that the problems of education programmes are not solved if the means for doing that are not available, these reforms are as good as not being introduced. This raises some questions as to the methodology used in such an approach to curriculum development, bearing in mind that curriculum development is an on-going process involving analysis of various elements. The experience gained from such activities should be used in producing national curricula based on Algeria's environment and needs and in consonance with international trends. It must be added that an equally efficient administration of the curriculum is required. At present the bureaucratic system is delaying reforms. There is therefore an urgent need for policy-makers and those in authority to make the administration of the curriculum functional and effective. Most importantly what is decided and recommended in conferences must be put immediately into practice otherwise time and resources would have been wasted.

7.3 CURRICULUM DEVELOPMENT IN LIBRARY EDUCATION

The introduction of professional education in Algeria may have been a consequence of the criticisms that are heaped on education programmes for being too elitist. This also increased the need to train the skilled middle workforce needed to contribute to the
economic and technological development of the country. It does not mean however, that such education facilities had not existed before independence. It is only that the importance of such an education had increased to the extent of becoming a concern of universities and therefore more programmes have been established from the 1970's onwards. In 1975 library education was introduced at the University of Algiers to produce the manpower needed for Algerian libraries to replace expatriate librarians who became expensive to maintain. It is also a response to the effort to localise training and Algerianise manpower at all levels of the country's economy.

Library education in Algeria is a comparatively new element within the higher education system. Its short academic life results in a total lack of research and, therefore, an absence of documented literature for review. This section is mainly based on the writer's first hand data accumulated during several years of experience in the field as a lecturer and a founder of the Institute of Constantine University. Certainly, the ability of any researcher to work and make use of previous findings, and eventually to make sense of his/her own research experience, depends on a body of knowledge essential for interpretation of opinions in order to attain the desired results for growth and maturity of the area of research under consideration. The lack of such a body of knowledge for review is a major limitation in this section.
The basic assumption that underlies curriculum development activity in any discipline should be: is there a change in the needs and practice of the profession it serves? Any answer to this question in the library field requires proper investigation and detailed analysis of the needs of the profession. These needs must then be translated into objectives and then into new courses.

In the case under investigation, an extended review of the literature does not reveal any survey that could serve as a basis for curriculum development. Nevertheless, a closer examination of library education programmes in Appendices 5 and 6 shows that these have been subject to continuous change and revision; in that some courses deemed unnecessary, for example Langue Ottomane and Introduction aux sciences juridiques have disappeared from the curriculum. Other courses that were judged insufficiently developed to be separate modules, i.e. Bibliographie de L'Algerie and A/V Materials were incorporated into more general modules such as Bibliographie du Maghreb which includes Bibliographie de L'Algerie, while A/V materials are now studied both in Introduction aux methodes documentaires and Technologie de la documentation. Certain modules changed names - for instance Sociologie culturelle became Animation culturelle; others were just shifted from one year to another, and/or from one module to another i.e. Paleographie Arabe et paleographie Turque moved from semester 7 to semester 8 and was
divided into two units thus students had to take either Paleographie Arabe ou (or) Paleographie Turque.

Another significant change in the curriculum is that specialisation which used to start in the fourth year of the licence programme where students can choose to specialise in documentation, librarianship or archives has stopped. Thus, the three disciplines were integrated into a common curriculum which gave little more attention to new areas. For instance, Automatisation, Informatique et documentation, Théorie de l'Information, Réseaux et systèmes d'information among others. Whether these new modules were introduced with the objective of developing the profession and providing better library services or just to make the curriculum look modern and forward-looking by using current terminology is debatable. For the findings of this study revealed that some courses that have been taken out or incorporated are still required as separate modules i.e. Bibliography of Algeria, Cultural sociology of Algeria and A/V materials.

A closer examination of the present curriculum (Appendix 6) still raises the question of its relevance to the profession and society at large, for there is no value in curriculum if divorced from its environmental context. Furthermore the objectives and content of the curriculum alone can demonstrate its relevance to individual countries and professions. It is the belief of this writer that when decisions about curriculum changes are made, these should start from attitudes to change of policy-makers. These should be convinced of
the need for changes and accept the necessity to provide for and financially support these changes if there are any.

7.4 METHODOLOGY FOR CURRICULUM DEVELOPMENT IN ALGERIA

The review of the literature suggests that decisions about curriculum change should be based on the analysis of the nature of the profession, the community and the environment it is designed to serve. This is considered crucial to the clarification of the question of the social relevance of the curriculum. In Algeria, changes in the library education curriculum are expected to alter the nature of the experience offered to graduates and make knowledge acquired more relevant to current practice, while it also helps graduates cope with unexpected situations whenever they arise. Before attempting any change or revision of the whole curriculum or part of it, it is necessary:

a) to be very clear about what is meant by curriculum development in its broader sense, not just a change of course titles or their movement from one module to another;

b) be aware of current and anticipated trends in library education at the international level and their implications for Algerian curriculum development and/or design;

c) have clear objectives for library education and about their implications for professional and national development.
In Algeria's changing environmental conditions curriculum development should be regarded as essential to the development of the profession, the upgrading of library services and the cultural situation of the country. It requires planning, developing, implementing and evaluating the whole process of designing and teaching a course(s) in terms of Algeria's specific objectives and their integration into the wider national spectrum of educational and national development without losing sight of the international trends. The following model could be used as a schematic representation of different phases involved in curriculum development:
FIGURE 3: DIFFERENT PHASES OF CURRICULUM DEVELOPMENT
At the meeting on the national planning of documentation and library services in Arab countries, it was recommended that:

"In establishing curricula for schools in Arab countries, consideration should be given to successful experiences in developing countries in the creation of upgrading courses in librarianship and information science designed to upgrade knowledge. Careful study should be made in each country to create a curriculum compatible with international standards to prepare the national information infrastructures to participate in world-wide information systems" [1].

This statement reinforces the importance of carefully planned and clearly stated objectives. It also confirms "the need to approach a country's library and information provision via an assessment of its own, distinctive needs, and not by the wholesale transplanting of practices and systems from an environment of a very different character."2

7.5 AIMS AND OBJECTIVES

It is established that curriculum development will bring effective results, only when objectives are identified, clearly stated and set in a framework of national priorities. Dean proposes a list of objectives of relevance to developing countries when planning and developing their library education:

1. to ascertain curricular needs and the setting up of appropriate training courses to the levels required;
2. to identify areas in which investigation is required, and to establish research programmes encompassing both group and individual projects;

3. to publish monographs, textbooks, journals. As soon as the school is reasonably well established, it would begin to think in terms of publication to invigorate local and indeed, national professional thinking;

4. to undertake the creation of a resource centre in librarianship;

5. to maintain continuous professional contact with alumni and to offer guidance after they have left the school;

6. to contribute to continuing education in the region served, and to mobilise professional consciousness by seminars, short courses and conferences;

7. to hold exhibitions of current publications, of new items, of equipment etc, in order to increase the school's impact upon its environment;

8. to establish library pilot projects where local services are deficient. The community must be brought into contact with effective library services by the creation of pilot projects as they may be required;
9. to provide advisory and consulting services when necessary. In developing countries, with an overall lack of professional expertise, a number of library systems may appropriately take advantage of these facilities. At its most significant, this kind of activity is directed towards coherent library planning at the national level;

10. to play an active role in the administrative, teaching and research functions of the institution of higher education in which the school is situated;

11. to take some responsibility in creating appropriate international relationships i.e. to forge links between other library schools everywhere, and thus create a forum for the exchange of ideas. [3].

This exhaustive list of objectives touches on the major issues in library education in Algeria. Some are especially significant and far reaching in view of the urgent needs of library education in Algeria and the profession it serves such as: objectives 1, 3, 5, 6, 7 and 11. Some are still unthought of especially items 8 and 9 which seem too advanced given that library education "has not yet become a reality (in Algeria). There is no national programme of library development (at any stage). Not only is there a lack of public awareness about the importance of libraries and library services to support and assist the social, educational, and economic progress of
the country, but also there is a lack of appreciation and understanding by the authorities" [4] (my parenthesis). This lack of recognition is restricting library schools' activities and, as a result, they tend to adhere to objectives that are rather too general and vague. For instance, the DTBA (see Chapter 4) was established with the objective "to respond to the urgent need of the country in terms of library, documentation and archives supportive personnel" [5]. Clearly this objective is too general to form the basis for the design of a curriculum to meet whatever needs are evident.

Years later the licence programme (see Chapter 4) was again established with a similar general objective "to give graduates a general professional education mainly in librarianship and documentation" [6]. A number of reasons can be found for this lack of clearly defined objectives mainly:

- a) the lack of recognition of the library profession;
- b) a lack of job descriptions and tasks analysis for library staff;
- c) there is no survey about the needs of the profession on which to base the establishment of library education programmes.

This reveals the problems lying ahead of library schools. It also shows the amount of work required, should the decision to develop the curriculum be taken. Chafai showed some dissatisfaction in relation to the design of curricula in the Algerian library field. He strongly argues that curriculum design and/or development is not
merely a list of subjects but "before defining the content of a course and the way to teach it, one must reflect on the tasks the graduates are prepared to perform. It is only from definition of such tasks that one can design a curriculum geared towards efficiency" [7]. The author insists also on the identification of levels of performance explaining that the work in libraries is by levels so should be the curriculum. He implied that the latter should be developed to produce: adaptable, problem-solving and above all creative graduates able to use their knowledge and skills consciously" [8]. Dr Muhammad Ali* too, thinks that the best way to train library personnel is "through a thought-provoking and forward looking curriculum that introduces students to universal principles of librarianship and instill in them the eagerness to search for creative solutions to the library situation as it applies to their working conditions" [9]. These suggestions have wider connotations, in that they provide a fitting framework for curriculum development as seen by library educators in Algeria. Furthermore they concur with the world trends as revealed by the survey of the literature.

Yacoubi,** basing his conclusions on years of experience as a practitioner and a lecturer in the field, strongly criticised the curriculum for being of little relevance to the profession and, thus, contributing nothing to solve its major problems [10]. In a similar

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manner Boudeffa [11] and Bouderbane [12] (both practitioners and lecturers at Constantine Institute) propose that the curriculum should set as its prime objective to train graduates to solve the current problems of the profession. They suggest that the best way of achieving this is to introduce in the curriculum courses that are consonant with the realities of the situation and give graduates and professionals the opportunity to undertake problem-solving projects.

From the foregoing, it is clear that the need for curriculum development in Algerian library education will find its basis in an objectives' model, which will be used to defend the rationale for curriculum development. The following model could be used:

**FIGURE 4: OBJECTIVES OF CURRICULUM DEVELOPMENT**
When the schools are ready to set their objectives obviously these would be to produce graduates, develop the profession, improve the information environment in the country, encourage the use of libraries, develop reading habits and so on. For the schools to achieve such objectives, it is necessary that these are clearly stated; they should be hierarchical, realistic and consistent. Hierarchical from the most important to the least; from the general to the specific one i.e. the school's general objective is to train library personnel. From this follows a whole hierarchy of objectives. Meanwhile curriculum development planners have to choose realistic target levels for their objectives. The levels should come out of an analysis of the needs of the profession, its environment, its facilities, strengths and weaknesses not out of wishful targets and thoughts. To achieve results objectives of the library school need to be consistent, they have to be compatible and fit in the national framework of objectives as shown above or else they will only cause confusion and mistrust.

This objectives' theme was taken up in major Unesco studies on curriculum development. In a recent report published by the PGI in 1987 [13], Unesco posits that a programme in information studies should have the following objectives:

1. to familiarise students with the role of information in society;
2. to make students fully aware of the sources of information available in society - documentary, audio-visual, machine readable - and to develop skills for exploiting these resources;
3. to familiarise students with methodologies for the identification, analysis, organisation, evaluation, presentation and dissemination of information in the context of various types of information services and for different user groups;

4. to introduce students to modern management techniques which can be applied to the study of user needs, to policy analysis and to the economic and social planning, assessment and marketing of information;

5. to provide students with the basic methodology for planning, designing and developing local and regional information systems and services which are responsive to user needs;

6. to provide students with the practical skills necessary to collect, preserve, organise and disseminate information in whatever forms it may be recorded;

7. to provide students with an understanding of and capacity to use existing and emerging technologies applicable to information systems and services (in Algeria);

8. to introduce students to research methods so that they may use such methods to identify, analyse and solve specific problems, and also be capable of applying the results of research in order to improve professional practice [14].

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These objectives have wider implications for curriculum development in Algeria. For they offer a considerable scope for optimism for the improvement of curriculum and upgrading of the profession. Furthermore, they lend weight to the findings of this study.

7.6 CONTENT AND STRUCTURE

The findings of this research show that the lecturers, practitioners and students, unanimously recognise the need to improve the content of the curriculum, by making it more relevant to practice. There was a tendency to be severely critical of the present content. In a sample of opinions amongst participants, wishes were expressed as to the inclusion of more information science courses, but the general trend is still in favour of the traditional core, suggesting that the Unesco approach to

"harmonization of the core curriculum" should be used to select the content of courses that introduces students to the universal principles of library and information and completes their education through courses for specific application in Algerian situations [15,16].

There is overwhelming agreement that the content of library education in Algeria should be in line with international standards and specially tailored to fit in Algerian national infrastructure.

"For this reason, it is the responsibility of the education institution not only to ensure that the student has a full grasp of the principles and theory which underlie all (the activities involved in library and information work), but to provide very carefully selected practical exercises to illuminate them (in the context of Algeria)" [17].

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For more details on curriculum content see the findings of the interviews in Chapter 6.

It is generally agreed, as regards structure, that library schools are training at the required level and within an acceptable structure. The structure of the profession appears to be satisfactory since it is necessary to have para-professionals, to carry out the day to day routines, as well as professionals to assume leadership and teaching positions and engage in research.

7.7 INSTRUCTIONAL METHODS

These are certainly dictated by the general practice in the mother institution, the facilities and the faculty expertise. Since we are discussing education for a profession this education must go beyond simply note taking and should include participative methods of teaching and the encouragement of analysis and critical thinking. In Kaddache's [18] viewpoint a good pedagogical way is the use of handouts as a basis for class discussions. According to the author tutorials, seminars and case studies will create the kind of link needed to relate the theoretical notions provided in the handouts and the practical situations in which the acquired knowledge can be put into effect. According to the findings of this study this is likely to be obstructed by the lack of facilities mentioned in Chapter 4. Unless these limitations are overcome the formal lecture and note taking will remain the major teaching/learning methods available in
Algeria not only in library schools but in all educational institutions at all levels.

7.8 EVALUATION AND ASSESSMENT

Evaluation of the curriculum in library education has never occurred to judge by the elements currently available in the curriculum. It should be noted, however, that three major events have occurred: in the 1980s the whole tertiary education programme was subject to debate at national level in the framework of "La conference nationale pedagogique". For instance, in the national conference of 1985 subject panels were established with the objective of assessing the content of individual curricula, including that of library education (of which, the present writer was a member). Recommendations were made and submitted in open sessions for discussion and the following recommendations for library education were made:

- the library education programme should cater for the national needs in information professions;
- they should reduce the amount of non-professional courses and introduce more information science courses;
- Arabic should be the sole language of teaching to keep in line with political decisions of Arabisation of education;
- they should feature post-graduation and research to solve the problems of the profession [19].
As far as the assessment of students is concerned, it should be noted that the whole curriculum content shown in Appendix 6 is compulsory and must be taken by every student according to their level of study. Also students will not qualify for the award of any of the degrees; licence or technician diploma or DSB or magister until he/she completes the required period of study. Students are expected to pass five papers in each course; four minor ones during the year and one major one in June called Controle de synthese. If the student fails, he/she will be given a chance to re-sit (rattrapage) in September, in not more than three papers though. If the student fails more than three papers he/she has to repeat the year, this occurs very rarely.

In addition to this, students have to complete and defend a final project in the case of licence. As far as postgraduate students are concerned, they have to take only three or four general papers in each course. At the end of their course, providing they have successfully passed all modules, they have to produce and defend a thesis to get a DSB or magister. In general, students of all levels produce essays, small seminar papers, projects, have to attend visits to libraries and information centres, undertake work placements for practical exercises. In theory all these activities are assessed but in practice the results obtained are almost insignificant as to the final decision about the success or failure of students. The formal examination papers remain the main form of assessing graduates.

On the question of the social relevance of the curriculum, there can be no question as to efforts deployed by education authorities to
meet national needs in quality and quantity of manpower, but in the case of the library education curriculum there is very little emphasis on the Algerian environment. The changes in curriculum content discussed earlier in this section are said to bring about this sought after social relevance, but an examination of these changes reveals the contrary. For instance, there is no significant course which lends itself to a study of Algerian librarianship such as, for example, bibliographical control in Algeria, information sources and libraries in Algeria, or social environment and libraries among others. Since the curriculum does not focus on Algerian issues, major professional problems remain unsolved, and as a result, there is an obvious lack of research in this field which is already starved of documentation; the limitations that the scarcity of research has imposed upon this study is an example of such starvation.

The underlying element that created such irrelevance in library education is the whole approach to curriculum design that was undertaken from the wrong dimension when the government called upon a Belgian professor in history to design a curriculum for library education in Algeria. The curriculum which resulted was not only heavily slanted towards historical studies but also irrelevant to library practice in Algeria. The question of practical relevance to the library situation arises since there must be grave doubts as to whether library education is producing the kind of graduates needed to solve problems of professional status and gain full recognition of libraries and information as major contributors to the upgrading of
the socio-economic and cultural development of the masses. In the circumstances surrounding the Algerian library situation, the question of "relevance" should form the argument that stimulates change in the curriculum. Bearing in mind that library education and, in fact, the whole system of education in Algeria, operates on a national curriculum basis, any change is expected to reflect agreement on a common philosophy of library education and an overall appreciation of national needs. This issue of social relevance raises a major question as to the importance of education abroad.

7.9 EDUCATION WHERE?

If future graduates should be given an education that reflects the needs and objectives of his/her social conditions and environment, what then is the benefit of education abroad? This question has occupied the minds of several writers; Aman [20], Bousso [21], Dean [22], Lundu [23] among others; the general impression is that local training is by far preferable. This does not mean however, that students from developing countries should remain exclusively confined within their national boundaries for all their education. Dean, for instance, outlines the advantages of education abroad which should be considered by education authorities for their merits if nothing else:

1. The broadening of experience by travel;
2. The award of a qualification that is universally accepted;
3. A cadre of instructors with sufficient leisure to develop their specialities and to undertake the research that is so important for the enrichment of teaching;
4. Association of lasting value with professionals of the sponsoring metropolitan country;

5. A diversity of libraries for field work and demonstration purposes, facilities which are all too often lacking in the emergent country;

6. An opportunity to become acquainted with technologies closely associated with librarianship such as printing, data processing, reprography, etc, in highly developed form [24].

In a similar manner, Aman expressed faith in education abroad when he contended that:

"the return of scholars who receive their doctorates or other advanced degrees from American and European schools of library and information science has exerted a positive influence on the curriculum and instruction in their universities. Their writings on the new information technology and innovative methods of handling information have contributed to the shaping of new programmes for librarians and information specialists" [25].

This contention bears a considerable relevance to the education of Algerians, especially at postgraduate level, in order that they may return to Algeria with the sort of new innovative ideas needed to bring the curriculum into steps with the international standards.

Concerning the disadvantages of studying abroad, Dean again writes that
"although the world of librarianship may be one world, the emphasis placed upon various aspects of library education differs from place to place. Library education in the metropolitan countries often fails to place emphasis especially where it is required by the student from the developing country" [26].

Along the same lines Lundu, argues that

"the time is now ripe for professional librarians from developing nations to disorient themselves from such important Western or Eastern traditions, thoughts, beliefs, attitudes and practices and to look for a library education that could deal with information problems that are typically African, Asian, Latin American or Arabic" [27].

Both points of view on education abroad are pertinent in Algeria where the call for relevance in the curriculum is strong while the need to train more professionals to a higher level is met by library schools in the metropolitan countries i.e. France and the UK.

From the foregoing, there is no denying the fact that there is a distinct advantage to be gained from receiving education abroad but social relevance cannot be achieved by

"wholesale import programmes ... unless they adopt home made solutions in order to guarantee their success and workability" [28].

If it is agreed that libraries are closely tied to the prevailing economic, social, cultural, technological and political values and aspirations of the societies they serve. In this case these values and aspirations constitute what can be called "needs" of the society
under investigation and these "needs" vary from society to society even from individual to individual, therefore these needs are unique and peculiar in each country, and so should be the actions taken to meet them as for instance in curriculum development.

Then how the social relevance can be achieved lies in the profession and education of librarianship and how it responds to the needs of individual local conditions and special circumstances. This is the most decisive and a very difficult task to undertake in the Algerian library field in search of the answer to social relevance. Part of the answer to such problems is provided by Havard-Williams in his observation that

"professional education in any field must be conditioned by needs of the profession. Clear views of what the profession is about can be attained only if there are clearly defined objectives. Clearly defined objectives who can see their way through problems, and who have vision of where institutions (and society as a whole) are going and how development is likely to take place. The development of archives, library and information services (in the context of developing countries), must thus depend to a large degree on the profession itself" [29].

Right now the profession in Algeria needs a curriculum that provides solutions to its problems of recognition, status, structure and salary scales as well as a curriculum which senses the information needs of the Algerian society and produces professionals who cater for them using mainly the local facilities.
It is a fact that a large number of the best formally educated Algerian librarians and information scientists have been educated in UK and France and these are the ones who constitute the leadership in the information profession and education in Algeria. For their education abroad has been a decisive factor in the development in the field. If the whole issue of library education is based on the argument emphasising social relevance through local programmes versus up to date and innovative knowledge in the subject acquired overseas, then neither is good or bad. Both choices are equally important and should be offered. For a well designed local programme shows its appropriateness to the environment within which it operates and thus serves better the profession in that same environment. Education abroad keeps such local programmes in line with the international trends and requirements. A mixture of both will at the end benefit the profession in many ways i.e. in universal recognition of qualifications obtained, in cooperation, resources sharing, staff development programmes and other exchange activities. A total rejection of foreign values and ideas is certainly not the right approach to development in any field and more so in librarianship which is an international discipline. Curriculum development in Algeria should certainly emphasise the Algerian phenomenon but not be restricted to it. For the greater challenge lies in the study of a variety of values and ideologies and the efforts to adapt the acquired knowledge to local needs. After all in an international discipline such as librarianship it is hard to "localise" every part of the curriculum. In Algeria social relevance of the curriculum
should be influenced by the objectives of national development policies. For instance, in the country's political decisions, one of the most important criteria of social relevance in any field of economy, business and culture is the "Algerianization" of staff. One may submit that in the library field staff and supportive material should first be "Algerianized" in order to achieve the social relevance of the curriculum. In the meantime, it is the task of those responsible for curriculum development to look at international systems and integrate with them the prevailing local needs to bring about the social relevance in a national curriculum which has a proper international context.

SUMMARY

In this chapter curriculum development in Algeria has been reviewed. It is revealed that changes in the curriculum of library education have been made without due recourse to the assessment of professional needs. This is necessary in Algeria where education and library authorities are endeavouring to make the curriculum socially relevant and thus more inclined to the profession.

Whatever the approach to changes in Algerian library education, an active curriculum development process should not lose sight of the international features of librarianship. For the incorporating of foreign values into the prevailing local orientations adds a new dimension to curriculum development by putting it in a proper international context.
REFERENCES

1. Meeting of Experts on the national planning of documentation and library services in Arab countries, Cairo, 11-17 Feb. 1974.


6. Ibid, p.73.

7. Ibid, p.76.

8. Ibid, p.76/77.


10. YAKOUBI, B. Interviewed by the writer in March 1988 in Oran.

11. BOUDEFFA, M. Interviewed by the writer in April 1988 in Constantine.

12. BOUDEBARANE, A. Interviewed by the writer in April 1988 in Constantine.


15. CHAFAI, R. Interviewed by the writer in April 1988 in Algiers.

16. SARI, M. Interviewed by the writer in March 1988 in Constantine.

17. Op cit, Saun... p.21.


19. La conference nationale pedagogique organised by the Ministry of Higher Education in Algiers in 1985 (the proceedings of this conference were never published).


CHAPTER 8
CONCLUSIONS AND RECOMMENDATIONS

8.1 GENERAL CONCLUSIONS

Introduction

Education is a life-long process which is usually initiated to instil in those who are educated certain patterns and attitudes that help them to carry out their duties as mature and conscientious citizens. Curriculum development is the means through which the education process is carried out. It comprises many interrelated elements: aims, content, method and evaluation.

This study has particularly stressed the need to state as clearly as possible the aims and objectives of curriculum development, following the belief that these govern to a great extent the choice of content and methods. Today it is widely accepted that different societies aim at inculcating different patterns and attitudes in their members. It follows that their aims of education are different and so too are the objectives of their curriculum development. Nevertheless the uniqueness of one society does not mean rejection of the values of another, especially in an international discipline like librarianship whose general principles are universal.
In Algeria, the philosophical foundations of library education and of education in general should be derived from the environmental factors and socio-economic circumstances surrounding it. Any approach to education which ignores this fact is bound to produce inaccurate perceptions of curriculum development. The process of curriculum development may not differ from one society to another in a sense that it encompasses the above elements whatever the society within which it operates, but certain attitudes associated with curriculum development vary from one society to another depending on their perception of curriculum development.

Curriculum development in Algeria should be aimed at producing graduates who work in a challenging educational climate to ascertain mastery upon the changing circumstances of the country. In practice the achievement of these aims depends on the availability of many elements that combine to make a positive impact on education in general, and library education in particular.

The main concern of this study has been to identify and discuss the sort of framework which should be used for curriculum development in Algeria. This reflects the view that the purpose of curriculum development in all fields of education is to provide for the environment in which it operates. If this is not the case then it is likely that curriculum development will be of little relevance.
The major assumption that guided the hypotheses of this research is that there is no value in curriculum development if divorced from its environment. There are many factors to be considered when proposing a framework for curriculum development in Algeria. It should be clear by now that the effectiveness of the process of curriculum development depends on the statement of curriculum objectives and their interaction with national objectives for educational and national development. Curriculum development is an ongoing activity conditioned by many factors. It may be facilitated by two major courses of action:

1. Firstly to gather information in order to assess the facilities and opportunities for curriculum development, so that, if changes are needed, the relevant decisions about them may be made;
2. Secondly, to convince the authorities of the need for change and to stimulate action for curriculum development in its widest sense.

From the present writer's viewpoint, these two phases are crucial and should precede any attempt to engage in the process of curriculum development. For in Algeria the curriculum is national and any changes therein are subject to the government approval. To receive such an approval the changes in library education curriculum should not be in conflict with the educational system in operation and particularly not with the national objectives. Besides, a change out of touch with the national realities is doomed to failure.
The increasing demand for specialised information and the use of new methods and techniques in handling it, requires a high level of sophistication and performance from library and information workers in any society. It is not unreasonable, therefore, to expect substantial changes in the Algerian library education curriculum. Since it is glaringly evident that library schools in many parts of the world are contemplating changes in their library education programmes it would be appropriate for Algeria to follow suit. However, introducing innovative and too demanding changes is unlikely to be feasible right now, because of the following factors influencing the decision to introduce sophisticated areas of study in the present curriculum:

1. The availability of adequate faculty expertise, equipment and other facilities;
2. The possibility of attracting good calibre of students, i.e. with science background, into library education;
3. The present level of library education and the library profession;
4. The overall pattern of the national education system;
5. The general job situation and opportunities for library graduates.

When these points are carefully studied and analysed in the light of the country's environmental conditions, it will be found that the time is not ripe for Algerian library schools to take a sudden turn towards innovative courses such as IT for instance. This does not mean that attempts to introduce IT are inappropriate in Algeria. It should rather be taken to mean that this is desirable but a highly
sophisticated course related to IT is premature and not quite feasible at present.

Generally speaking, the establishment of formal library education has not been an easy venture. It has been a tedious and in many ways discouraging exercise, trying to create something out of practically nothing, but looking back the whole venture was worth undertaking, and library education in Algeria has come an unexpectedly long way. About 15 years ago, Algeria had no formal library education programme like the one operating today, and there was little interest in it happening. It has developed from an apprenticeship to a postgraduate programme whereby three Institutes attached to the three major universities in the country provide library education at sub-professional (BTS), professional (licence and DSB), and academic (Magister) levels. This indicates that as things improve in these Institutes, the whole field of library and information can hope for a better future. Most certainly, qualified staff will come into the profession better prepared to secure a better social status for libraries and information.

Throughout the discussion in this study, various problems were noted. The survey findings revealed that the validity of the hypotheses is supported by many weaknesses noted in library education programmes and facilities for delivering them. Algeria, unlike many developing countries, has experienced librarianship as early as 1835 through the establishment of the Bibliothèque Nationale d'Alger as an annex of the
Bibliothèque Nationale de Paris. It is now falling far behind many of its counterparts insofar as librarianship and education for it are concerned. This is due to various problems discussed in this study, mainly the lack of interest of its importance on the part of the policy-makers and the public in general.

The future of library education depends greatly on the awareness and the understanding of the nature of contributions a good library education system can make to the nation’s building. Information is indispensable to those engaged in national planning, reforms, study and research, and libraries are the places where information is stored, analysed and disseminated to all these categories of users. These functions can be carried out efficiently by professionals who learn the skills to do their work in a dynamic and forward looking school.

There is a need to attract students with a science background into library education to make the most of their subject knowledge for the benefit of the profession. Such graduates may be attracted to library education if there are more career opportunities for them in scientific and technical information fields, and if the profession is presented to them as a challenging profession that optimises working opportunities of the information age. Furthermore they must be assured of:

a) adequate remuneration; and
b) employment upon completion.
It is unlikely that valuable recruits will be attracted to librarianship if a library degree does not promise the same remuneration as other disciplines within the civil service, and if employment opportunities are scarce. Moreover failure of the government to provide for this represents an irreversible denial of the contribution libraries and information can make to the general development of the country. This alone makes the growth of the profession almost impossible.

By relating the hypotheses of this study to the evidence provided by the literature review and the survey findings the general conclusions show that:

1. Curriculum development should reflect the environmental conditions within which it operates

It is accepted that the basic principles of librarianship and information science are universal and therefore should be studied by all library students wherever they may be trained. Nevertheless specific circumstances exist in each environment where the library school is located. It follows that library schools in individual countries tend to go beyond the limits of universality to make their education programmes more responsive to the environment in which they operate, and relevant to the society they serve. In the process the international standards should in no way be overlooked. In Algeria the local needs for library education are derived from the country's evolving circumstances. These should be reflected in the curriculum
content in order to have a positive impact upon professional development. It should be clear that relevance of the curriculum does not mean shift of modules and/or change of names. Curriculum development should be the result of a serious analysis of the internal and external factors that have a bearing on the whole process of curriculum development, from investigation to implementation.

In the survey all participants recognised the importance of curriculum development in matters such as making library education more relevant to local problems of education and practice. As long as curriculum development keeps a certain harmony within its environment, all its components will lead to the same objectives, namely upgrading libraries and information which will in turn lead to the upgrading of society.

2. Objectives of curriculum development should be clearly stated

Curriculum is central to the whole educational process and curriculum development concerns itself with identifying educational objectives and translating them into learning experiences. For curriculum to succeed, a full and accurate description of objectives is required in the light of Figure 4, so as to link library education objectives with that of national development in general and education in particular. The rationale behind stating objectives clearly is to set realistic targets and likely periods within which these can be met. Targets can be deleted, added and/or altered as environmental circumstances dictate. Changes in targets, however, should be made in a systematic
way and within a proper framework, keeping a certain level of consistency and coherence within the general environment.

Inasmuch as the information environment is changing and new types of information services and organisations are required, so the number and type of information workers is changing. The inherent reluctance of library schools in Algeria to attempt changes, is a matter of concern of library educators. It is however, necessary to investigate all possible methods and means of change. For instance some additional competencies could be incorporated into the existing ones more economically than others and with minimal disruption of the whole system. Essentially changes could be at any level as long as they fit into the overall educational and professional system. There is evidence that library schools in Algeria have, and are, contemplating changes through individual initiatives. However unless there is a continuous, coordinated effort on the part of the government and the great majority of library educators and professionals to introduce changes which will enhance and project, and introduce a positive image of the profession and its leading role in the evolving society, changes in the curriculum on a personal and ad hoc basis will have no appreciable effect on the profession as a whole.

3. Substantial changes need to be made in the present curriculum
The findings of this study point to the urgent need for changes in the curriculum to show its social relevance. In order to introduce the right changes at the right level and the right time, knowledge of the
totality of the information environment where the school resides is essential. This must be collected, analysed and systematically organised to put curriculum planners in a position whereby they introduce what is feasible based on the results of their analysis. They can strive for optimal changes, plan for the immediate needs of the profession and discern hidden ones, and develop an hospitable and flexible curriculum that accommodates changes comfortably whilst maintaining the link with national changes in information and information related fields.

4. Inherent in curriculum development is the ability to provide students with skills, knowledge and attitudes that transfer across their entire career.

In Algeria it is essential that curriculum planners recognise this function of the curriculum, in order to achieve the desired result of producing resourceful professionals, capable of handling situations and solving problems, and of moving comfortably from one work environment to another. It is widely accepted that certain skills and concepts related to information work are vital to library students. The suggested scope and level for these skills and attitudes are outlined by Griffiths and King. They may not represent the reality in Algerian library schools, but they should be used as guides to extract the type of skills, knowledge and attitudes deemed important to Algerian graduates.
Right now the development of the present curriculum with an Algerian bias cannot afford to ignore the national and individual information needs prevailing in Algeria. The function of promoting Algerian librarianship and the use of local and regional information sources should be shown in the curriculum content as major subject areas. Appreciation of library education stems from a curriculum designed to feed the nation with the appropriate personnel empowered with the responsibility to solve the nation's information problems.

Apart from the suspicion as to whether changes in the curriculum have been introduced with this concern in mind, library schools libraries stock materials which do not portray the local situation. This is understandably due to the non-existence of publications of any kind in the field. This creates an undesirable gap between what is taught in the classroom and the real world outside.

5. Library education is mainly concerned with the practice of the library profession

It follows that a complete theory-based education is not enough, and unless is is supplemented with practice, it will remain incapable of producing the right calibre of professionals needed by the present market place. The view that practitioners need not be involved in teaching needs to be changed, unless the teaching staff will be required to have some experience in library practice along with their teaching qualification in order to be able to relate the theory to the
practice outside the classroom. What is taught is certainly important but it is equally important to be able to relate it to practical situations. It is the contention of this study that librarianship should be taught in relation to the type of libraries in operation and the type of services required of them and in relation to what is currently available and how this could develop according to society's changing needs. Education in many fields has traditionally been the area of educators alone, and this can be true as long as education is theory-based. However theory-based education for librarianship remains ineffective to the profession it serves unless it is supplemented by practical sessions. So professionals and educators must recognise this fact, and bring about the desired level of practice into library education programmes through the utilisation to the full of the experience and expertise of those into the profession.

6. There is a growth of specialisation

With the changing needs of different user groups, library schools are introducing new subjects to cater for users' special information needs. In Algeria, the curriculum has and is still producing generalists with a rounded education but no specialisation of any type. This study has not particularly focussed on any aspect of specialisation in the curriculum. Analysis of the environmental factors and the government's current development policies signal an emphasis on science and technology, business and R and D has implied that information scientists are needed to support these areas with prompt and accurate information. Furthermore the new developments in
handling print and non-print information require the mastery of some special skills and sophisticated knowledge to work efficiently. This justifies some specialisation in the curriculum as facilities for such specialisation are made available.

7. Library education should integrate fully into the University system

Library education in Algeria is part of the University education. Therefore it can only be fully integrated into other academic departments within the University as long as it measures up to them. Full integration can be seen in its participation in the University's development programme. One way to accomplish this is to undertake research activities, despite the shortcomings and difficulties which are imposing constraints on library education and curriculum development. Research however, is mandatory if library education is to achieve an academic status within the University.

8. There is a tendency to incorporate information technology (IT) in library education curricula

Based on the fact that the new technological developments are affecting library work, so library schools are striving to develop their curriculum to reflect this trend and remain in the forefront of an information environment so much altered by innovative technology. In Algeria the level of use of IT in economic sectors varies considerably. In libraries and library education little thought is given to the use of machines and other sophisticated tools.
Undoubtedly IT is a demanding area of study and its introduction into the curriculum must take account of the following:

1. that sophisticated courses should reflect the needs of the profession and fit in the national technological environment;
2. that they should promote visual and computer literacy and guidance in the use of electronic information;
3. they should be regarded as a source for creativity;
4. they should not be understood as functioning separately.

It is expected that when IT is incorporated into the curriculum it will eventually add a new dimension to library education. This may alter the public's perception of librarians' work and this in turn will change the image of libraries i.e. from storehouses to education and information agencies. The introduction of IT into the library school curriculum must be affected by the degree of its penetration into society in general and the system of education in particular. It is expected to bring with it new skills and knowledge about the use of electronic information networks. Thus visual, computer and information literacy become important issues in library education. There should be an available supply of technological equipment in the form of software and hardware for use in handling electronic information. The Centre de Recherche en Information Scientifique et Technique CERIST is a vital source of supply, and it is expected to play a key role in this.
10. The development of libraries and information depends on the development of the educational system.

In Algeria, the teaching methodologies and the evaluation system have discouraged the use of libraries. These are almost solely confined to storing and conservation roles emphasizing organization rather than service and material rather than users. This makes investment in them worthless. Libraries as agencies for national and self-development is a concept to be cultivated in Algeria. For this to happen, there should be an effort on the part of library schools to promote reading and the use of libraries as a cultural and social habit. They are expected to feed the nation with staff well equipped to engage in a well-organized user education programme. Such a habit is certainly more easily instilled at an early age in children. These need to be taught as early as possible how to become regular and active users of the library’s resources and also to grow with the habit of reading for education, information, and leisure. This habit can be picked up first at home when the child grows in a reading family, it becomes stronger with the availability of a school library network. As they become aware of it, they make wider use of it. In turn, less emphasis will be placed on the professorial authority and this will make more use of library resources to supplement their knowledge and satisfy their curiosity. For this to materialize, the development of school libraries is mandatory to form the basic foundation for change in the educational system from passive to active learning involving more participation of those being educated.
11. There is a need for an increase in human and material resources

Problems faced by library schools have been discussed in Chapter 4. Amongst these the formidable lack of highly qualified teachers in addition to other facilities, seems to inhibit curriculum development. If library schools do not attract more qualified teachers, curriculum development will remain a mere wishful dream. At this point the concern of library schools should be with staff development programmes to increase the calibre and quality of the teaching. Library schools should draw on expertise and support from elsewhere. They should look for possibilities at local, regional and international levels to increase their input in terms of faculty expertise. The most likely possibility is to recruit expatriates and continue to rely on visiting lecturers.

8.2 GENERAL RECOMMENDATIONS

1. The Government's recent decisions to concentrate on education programmes and the revision of curricula contents to ensure their relevance to the local needs is no less than a recognition that these are not meeting the national objectives of education. In fact education programmes are found to be out of touch with the national realities and their contribution to national development is minimal. There seems to be a lack of coherence and continuity and in general a failure to provide a link between the various levels of education. Based on this the government came to the conclusion that basic corrections are to be made in curricula to ensure their social relevance. To this end defComites
Pedagogiques Nationaux - CPN - have been set up to look into education programmes (primarily at university level) and make recommendations for curriculum development including librarianship and information. This however creates organisational problems and therefore has made little impact on curricula. What is needed is a central body to take charge of curriculum development at national level and in all areas and levels of education to ensure efficiency in curriculum development activities. For this to materialise it is recommended that curriculum development should be vested in a National Council for Curriculum Development - NCCD. This must be autonomous, but directly accountable to the presidency. It should be backed with the necessary legislation giving it the right to ensure the enforcement of curriculum development in order to maintain standards in educational practice and provision. The NCCD should be a statutory body created by presidential decision. It should have an executive director, appointed by the President or the Prime Minister who would be responsible for implementing the NCCD policies through the activities of a permanent secretariat. The NCCD would act as a bridge between government and the education institutions, formulating curriculum development policies, passing them on to the Government for approval and a stamp of authority, and passing decisions to the executive director for implementation. For efficient management the NCCD will consist of functional units, the number of which would be determined by the scale of work and
facilities made available to the council once created. The council's organisational structure would have to fit into the general administrative pattern in use in the country, with as little bureaucracy as possible. A priori there is a need for a research unit to undertake research in educational changes and curriculum development to keep pace with the developments in the area. A liaison unit is necessary to maintain coherence within the process of curriculum development, ensuring that it is undertaken within the framework of national policy. Guidelines on curriculum development are needed for educational institutions which should cooperate in their formulation. The research unit would be expected to promote cooperative activities to ensure that these are consonant with the nation's policies on institutional educational and curriculum development. Finally it would have to establish and maintain links with regional and international organisations involved in education, such as Alecso and Unesco, to keep in line with accepted standards in education.

Membership of the NCCD should include policy makers, representatives of relevant ministries, experts in curriculum development, knowledgeable people in information and research work and other interested groups, e.g. users, for the development of a national curriculum, such a membership would ensure that any change would bear the stamp of national agreement on educational and curricula objectives.

Once established the NCCD will have to set itself the primary
objective of developing curricula, encouraging links between
different disciplines and levels and between these and the
environment. Its main activities would consist of:

1. formulating policies as regards to curriculum planning and
   revision;

2. assisting education authorities in the formulation of
   educational objectives and advising them on curriculum
development;

3. coordinating curriculum development activities at all levels
   of education;

4. anticipating and discerning future development changes in
   educational objectives and securing approval for curriculum
   development and revisions;

5. stimulating an awareness of the value of regular revision of
   curricula to ensure that these respond to the changing needs
   of society;

6. strengthening links between curriculum development and its
   environment;

7. providing guidelines for curriculum development.
FIGURE 5
Organisational Structure of the NCCD

The National Council for Curriculum Development

Ministry of National Education

Director

Ministry of Higher Education

Fundamental and Secondary Education

Higher Education

Ministry of Work and Professional Education

Physical Education

Ministry of Sports and Physical Education

Secretarial

Bureau for advice on the production of teaching material

Centre for research and development in education programmes and curricula

direct relations
indirect relations
The organisational structure of the NCCD would be as follows:

(See Figure 5)

2. The philosophical foundation on which curriculum development has been based should be re-examined. It is recommended that efforts should be directed towards identifying the characteristics of Algerian librarianship and information work. Such as fitting library and information education within the Algerian information environment and the level of library practice in it. It must reflect problems of Algerian libraries and information without ignoring international aspects of librarianship and information work. In relation to this, curriculum planners should consider what is feasible in Algeria from the point of view of the available facilities. What are reasonable expectations given the present state of staffing, resources and equipment? It could be true that curriculum development should not be totally constrained by the shortcomings of schools, but it would be necessary to keep in mind that unrealistic projections based on false expectations on the facilities side could lead only to failure and frustration. The rationale behind curriculum development should be to keep an intimate relationship between its objectives and national realities.

3. In planning the curriculum, there needs to be a consideration of the nature of the environmental circumstances. It is therefore recommended that curriculum development should recognise this relationship in setting goals and objectives. Objectives should
be tailored to local needs without overlooking the pervasive and international nature of librarianship. Again, setting goals and objectives is essential to the attainment of targets but this should not be taken as fixed or unalterable. Adjustments may need to be made occasionally to meet unexpected changes which may require revision of objectives. Objectives state how targets are to be attained. They are both short-term and long-term objectives as well as general and specific. Setting objectives requires in-depth enquiries with regard to many factors. The groundwork for such an enquiry is already provided in Chapters 5, 6 and 7. Fitting objectives within the national framework would add credibility to curriculum development objectives and would facilitate their attainment.

4. There are differences between what is taught in the classroom and the practical realities that confront graduates at work. It is recommended that theory and practice should be compatible to avoid wastage and frustration amongst graduates. For, theoretical knowledge will only be futile if it does not fit into the practical situation. It is important to acquire knowledge that reflects library practice, needs and services, which are prevalent in Algeria and try to envisage future trends, in order to be able to put it into practice. There must be a balance between knowledge, skills and attitudes. These are most effectively learned when integrated with the needs of the profession in Algeria. It would make more sense from the
practical point of view and eventually provide scope for professional development. The challenge for curriculum development planners in Algeria is:

a) to identify these skills, attitudes and knowledge;
b) to design quality learning experience that integrates into the national system;
c) to determine specific features of Algerian librarianship for inclusion;

Graduates produced under these circumstances should be more successful in dealing with problems of the profession in a more practical way.

5. Curriculum development should as far as possible be related to manpower planning. Before attempting curriculum development there should be an identification of professional manpower required in terms of quality and quantity. This activity should be undertaken nationally through a definite government policy. So far, three basic groups of personnel are required for different levels of performance, namely: personnel for education and research; personnel for management, control and development of information and library services; and support personnel for executing routine library and information work. Griffiths and King [2] indicate skills, attitudes and knowledge required for different levels identified by the writers. Their work could be useful in the Algerian context if it is methodically adapted to
Algerian needs in terms of the levels of performance identified. In the process of curriculum development, the image of the required manpower should form the focus of curriculum development together with the definition of the content and objectives. One cannot predict what is needed from curriculum development unless one has a clear idea of the nature and attributes of professionals and the types of libraries and information units they are expected to work in. Students best make the connection between learned skills and working situations when they are required to use them in the real world, not the ideal one.

6. It is essential that the calibre of the faculty should be raised. It is recommended that library schools should seek to employ highly qualified teachers who have the ability to link learning situations in the classroom to working conditions in the profession. Teachers who have positive and forward looking attitudes to librarianship, and who have a good blend of theoretical knowledge and library experience, and who pass these skills on to their students - the future teachers and/or library practitioners. This type of teacher would be in the best position to bridge the gap between theory and practice by bringing practical situations into the classroom in the course of their teaching. The ultimate result is the production of problem-solving students who will put their knowledge immediately into practice. Library teachers should have the added responsibility of relating the international principles of
librarianship to the local characteristics and incorporating relevant foreign values into the local systems, in order to produce the best blend for the enrichment of library education in the country.

7. Library education is located within universities, but will only integrate fully in the university's structure if it participates in the former's development programme through research activities. It is recommended that there should be opportunities for research in areas pertinent to library practice in Algeria. Such as information infrastructure, the use of information sources, user studies and bibliographic control.

8. From evidence provided in this study, with very few exceptions, the overall quality and quantity of teaching staff in the library schools is very low. Therefore a proper staff development programme is recommended. Library education authorities should invest more in making provision for human resources. They should increase the quota of graduates in the magister programmes of Algiers and Constantine, and make provision for local and overseas training. The average Algerian student sees education abroad as a boost to his educational ambitions. The government should therefore grant more scholarships for education abroad to future teachers of library and information studies. Those who come back to Algeria with an MPhil or a PhD will thus be in a position of academic strength to attempt innovation in the education programmes.
In the meantime, as an interim measure, recruitment of expatriates seems an immediate remedy to the lack of teachers, however, it should be borne in mind that expatriates are very hard to attract unless they are offered very attractive remuneration and the benefit of other facilities.

9. The long struggle to set up a professional body has finally paid off, for in March 1989 an Algerian Library Association came into being. It is recommended that the latter adds to its priority list the following functions:

1. To make the library profession and education more appealing to dynamic and capable recruits;
2. To promote the use of libraries through a well planned library and information consciousness programme, so that reading and information seeking become a cultural habit from the earliest age of citizens;
3. To establish liaison with libraries and library schools by creating opportunities for cooperative activities at local, national, regional and international levels;
4. To initiate, promote and encourage library research and professional publications;
5. To promote and maintain standards in library education and practice;
6. To act as a pressure group to raise library status and ensure general recognition.
To function efficiently the Algerian Library Association should define clearly objectives, its organisational structure, its administrative pattern, control, status and membership and plan its professional activities at the levels and with the priorities required. With such activities the Algerian Library Association can have a tremendous effect on educational and professional development.

10. The problem of libraries and information in Algeria is a national problem which can be solved only by an option of the government. This option would be the establishment of a library network nationwide. To this end the introduction of a Carte documentaire is recommended. The launching of the Carte documentaire would be the government's involvement in developing a real national information policy. It would have great implications for libraries and information in the country. Its main objective would be to give a new impetus to the national information policy. Like the Carte universitaire which reorganised higher education. The Carte documentaire would enrich the cultural situation of the country and support all sectors of economic development. Politically it would help to make citizens more conscious and aware of their contribution to the nation's welfare, by feeding them with efficient and timely information. Economically it would maximise the use of national and international information sources at a low cost. And, culturally
it would create a proper atmosphere and places (libraries and information institutions) where culture is kept, enriched and passed on to generations, helping every one of them to identify with its past, improve its present and aim at a better future. The *Carte documentaire* is expected to bring under its wings all those involved with books; i.e. Authors, publishers, distributors, libraries, library schools and users. Its introduction would come as a response to the wishes of the government concerning the improvement of the national education system and to the wishes of the nation concerning free flow of and access to information. Fundamentally it is expected to make existing libraries and information attractive by their collections, services as well as all reading, research and relaxing facilities, in order to promote a new type of library which would be appreciated and highly regarded by the users. To be effective, it should be in harmony with the political, economic and socio-cultural preoccupations of the government, and it needs to be planned jointly by the Ministries of Information and Culture, Education and Planning. Expertise of library professionals and educators is needed to advise on the different types of libraries, their level of funding, staffing and equipment.
8.3 Recapitulation

The recommendations can be summarised as follows:

1. Local curriculum development in the light of local resources, library systems and needs is always desirable.

2. The curriculum should be presented as a whole, keeping a certain harmony between its elements and between library education and the larger spectrum of the national educational system. It should cohere with curricula in other areas of education to integrate fully into the national curriculum system in operation.

3. Curriculum development should adapt major principles of libraries, and information to local circumstances, without losing the international aspect of the field.

4. A well planned curriculum development programme should have a profound effect on the national educational system, moving it away from passive learning methods to active ones, involving independent learning.

5. Incorporating practice into the curriculum provides the best learning situation and widens the scope for learning problem-solving skills.
6. Curriculum development should be so designed to attract more capable students. It should function as central to the development of the profession in general, and library education in particular.

7. Curriculum development should coordinate with the market place and the manpower situation and translate their needs into educational objectives. Curriculum development should be integrally related to the information needs of the students and tied to the educational process in the country.

8. For curriculum development to succeed, the number of qualified teachers should be increased, professional literature must be generated through research in the field, and other facilities should be made available to enhance teaching/learning activities.

9. Innovative courses within the curriculum should be attempted at a level which relates to the graduates' future professional duties in an environment slow in integrating sophisticated methods and techniques in the field of information. Courses related to IT for instance, should be given their objectives and importance in the library education curriculum related to the national plan for the development of IT in all education and information fields in order to give students the opportunity to grasp IT in its local setting.
10. Curriculum development should produce graduates fully aware of the value of information and their involvement in the development process in Algeria.

11. Curriculum development should produce graduates capable of assuming leadership in the field and capable of adjusting to new demands arising from changing attitudes towards information generation and use.

12. Curriculum development should produce professionals capable of furthering educational developments in library and information education through research and teaching activities.

13. Curriculum development should train personnel capable of contributing fully to the difficult task of ensuring that reading is a cultural habit and that the concept of the library as a social and educational agency penetrates fully into the Algerian society.

14. Curriculum development should provide subject treatment at levels of specialisation, theory and practice consonant with the level of the profession in Algeria.

15. Curriculum development should encourage the development of research and critical attitudes, and the application of modern research techniques to information and library problems in
Algeria and, where relevant and appropriate, information problems in the region (the Grand Maghreb and the Arab World) should receive due attention in Algerian library schools' programmes.

16. Curriculum development should recognise the universal and multidisciplinary nature of the field and pay attention to present and future developments, their applications in and implications for libraries and information in Algeria.
REFERENCES


2. Ibid.
BIBLIOGRAPHY

ABDELHADY, F.
"Arabic writings in library and information science" (in Arabic).
Arab Journal for Librarianship and Information Science 1, 1981, pp 6-84.

ABDELHADY, F.
"The professional situation of library and information education" (in Arabic).

ABDULLAH, A.R.S.

AHMAD, M.

AL-AKHRAS, M.

AL-HAJRASY, S.M.

AL-HAJRASY, S.M.

AL-HALWAJY, A.

ALGERIA.

ALGERIA.
La Charte Nationale, 1976.

ALGERIA.

253
ALGERIA.
In Encyclopaedia of the Third World.

ALGERIA.

ALGERIA.

ALGERIA.

ALGERIA.

ALTBAEI, P.G.

AL-WERDI, Z.H.K.

AMAN, M.

AMAN, M.M.

ANTHONY, L.J.


BALARD, R.M.

BALTA, P. and RULLEAU, G.

254
BARKO, H.

BENGE, R.C.

BENGE, R.C.

BENGE, R.C.

BERAQUEt, V.S.M;

BEZER, J. et al.

BOAZ, M.T.

BOLL, L.E.

BORCHARDT, D.H.

BOTTLE, R.T.

BOUAYED, M.

BOUAZZA, A. and NIMER, R.
BOUDEBANE, A.

BOUMARAFI, B.

BOUMARAFI, B.

BOUMARAFI, B.

BOUSSO, A.
"A library education policy for the developing countries: view". Unesco Bulletin for Libraries 22, 1968, pp 224-

BOWDEN, R.

BRAMLEY, G.

BRAMLEY, G.

BRITISH LIBRARY RESEARCH AND DEVELOPMENT DEPARTMENT.

BRITISH LIBRARY RESEARCH AND DEVELOPMENT DEPARTMENT.

BRITTAIN, M.J.

BUSHA, C.H. and HARTER, S.P.

BUCKLAND, M.
BURREL, T.W.  

CARCELES, G.  

CHEN, C.  

CLIFFE, G.R.  

COLSON, J.  

CONANT, R.W.  

COOK, M.  

COURRIER, Y.  

CRONIN, B.  

CRONIN, B.  

DALI, A.  
DANIEL, E.H.

DAVIDSON, D. and ROBERTS, N.

DAVISON, D

DAVIES, D.G., Jr.

DEAN, J.

DEAN, J.A.

DEAN, J.A.

DERR, R.L.

DOSA, H.L.

DOUGHERTY, R.M.

DUDLEY, E.D. et al.

DUDLEY, E.


258
EISENBERG, M.B. and BERKWITZ, R.E.

FASICK, A.M.

FORGET, J.

FOSDICK, H.

FOSKETT, D.J.

FOSKETT, D.J.

GANDON, F.

GARDNER, F.M.

GEH, H.P.
"Current problems in library training with a proposal for a curriculum". Libri 24, 1974, pp 143-152.

GELFAND, M.A.
University libraries for developing countries. Paris, Unesco, 1968.

GHRANAN, A.P.

GLEAVE, D.

GOLDNOR, H.
GRiffiThs, J.M. and KINg, D.W.

GroTziNGer, L.A.


hArrison, C.T.

hArton, A.

hAvArD-WILLIAMS, P.

hAvArD-WILLIAMS, P.

hAvArD-WILLIAMS, P.

hAvArD-WILLIAMS, P.

hAvArD-WILLIAMS, P.


jAHoda, G.
JACKSON, E.B. and ROTHSTEIN, S.

JOHNSON, K. and WHITE, M.

KAEGBEIN, P.

KASHYAP, M.

KHURSHID, A.

KULARATNE, E.D.T.
"Library education and training for sub-professionals in developing countries". Education for Information 3, 1985, pp 283-290.

LAJEUNESSE, M.

LAWAL, O.

LEBEL, G.
"La Bibliotheque Nationale d'Alger". Serie Culturell 1953, pp 27-36.

LEBEL, G.

LINE, M.

LINE, M.
"Requirements for library and information work and the role of library education". Education for Information 1, 1983, pp 25-37.

LUNDU, M.
MADKOUR, A.M.

MADKOUR, A.M.

McGARRY, K.J.

McGARRY, K.J.

MARCO, G.A.

MARCO, G.A.

MASKELL, P.


MYERS, M.

MINDER, T. and WHITTEN, B.

MOHAMMED, A. and AFOLABI, N.

MOORE, N.
MOORE, N.

MOORE, N.

MOREHEAD, J.

MOIT, T.H. Jr. and VANSELMO, E.H.

MUNN, R.F.

MURRAY-LACHAPELLE, R.
"La Cooperation du Canada avec l'Afrique Francophone dans le domaine des Bibliothèques et de la Documentation". Documentation et Bibliothèque 25, 1979, pp 81-86.

NEEDHAM, C.D.

NEEDHAM, C.D.

NEELAMEGHAN, A.

NEILL, S.D.
"Place of practice in a graduate school". Libri 25, 1975, pp 81-97.


N'ZOTTA, B.
OGUNSEYE, F.A

OLLER, A.K.

ONADRIAN, G.C. and ONADRIAN, R.W.

ORLOSKY, D.E. and SMITH, B.O.

PARR, E.A. and WAINWRIGHT E.J.

PENNA, C.V.

PERENNOU-SCENEN, H.
Le marche de l'emploi des professions de la documentation, analyse de l'offre a travers les annonces diffusees par la presse et les centres de formation. These de doctorat en science de l'information, Universite de droit d'economie et de sciences sociales de Paris, 1984.

PRING, R.


QURESHI, N.

RAITT, D.
"Information technology and the library". The Electronic Library 1, 1983, pp 149-156.
RAITT, D.
"Recent developments in telecommunication and their impact on information services". Aslib Proceedings 34, 1982, pp 54-76.

RAMOUL, T.
Reflexion sur un systeme de pret entre les bibliothéques et centres de documentation en Algerie. Memoire de DSB, Constantine, Institut de Bibliothéconomie, 1980.

RAYWARD, W.B.

REED, S.R.

REED, S.R.
"Library manpower planning in the USA". Libri 25, 1975, pp 332-347.

REICHER, D.

RICHARDSON, J. and HERNON, P.

ROGERS, A.K. and MacCHESNEY, K.

ROYAUME du MAROC.

SABOR, J.

SABZWARI, G.
"Role of library in education and research". Pakistan Library Bulletin 8, 1977, pp 1-16.

SALEM, S.

SALINAS, M.
SAIMAN, L.

SARACEVIC, T.
"The complex process of a total curriculum revision in information and library science: a case study". Education for Information 1, 1983, pp 309-314.

SARDAR, Z.

SAUNDERS, W.L.

SAUNDERS, W.L.

SHARIF, A.M.

SHARIF, A.M.

SHARIF, A.M.
"The factors which affect the development of librarianship and library education in the Arab countries". International Library Review 61, 1979, pp 245-266.

SHARON, C.L.

SHERA, J.H.

SHERA, J.H.

SHUR, H.
SIABDELHADI, A. and GREEN, R.H. 
"Strategic adjustment and stabilisation in a hydrocarbon exporter: 
the case of Algeria". Institute of Development Studies Bulletin 19, 

SIMON, R. and MYERS, M. 

SIMPSON, I.S. 
"Education for information science: United Kingdom". 

SLAMECKA, V. 
"Information technology and the third world". 

SMITH, T. 

SORAYYE, M. 
"Library and information science education in Saudi Arabia". Maktabat 
Al-Idarah 13, 1985, pp 60-86.


STUART, R.D. 
"Great expectations: library and information science education at the 

TANNER, D. and TANNER, L.N. 

TASHKANDI, A. 
Professional education in library studies in the Kingdom of Saudi 
Arabia (in Arabic). Master's Thesis, King Abdul Aziz University, 
Jeddah, 1982.

TAYLOR, E.R. 
"Extending the classroom". Assistant Librarian 78, 1985, pp 135-137.

TAYLOR, T.K. 
"School libraries and academic progress of students". Australian 
Academic Research Library 7, 1976, pp 117-123.

TAYLOR, R.S. 
"Information and productivity: definitions and relationships". In: 
Communicating Information, Proceedings of the 43rd ASIS Annual 
TELL, B.V.
"The awakening information needs of the developing countries".

TELL, B.V.

TIFFANY, B.

TENJPIR, G.

TJOUVAS, R. and HAUPMAN, R.

The Transbinary Group on Library and Information Studies (a report), June 1986.


UNESCO.


WAGNER, V.

WHITE, C.W.

WHITE, H.S. and PARIS, M.

WILLIAMS, R.V. and ZACHERT, M.J.K.

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WILLIAMS, J.G.  

WILSON, T.D.  

WOODS. L.B.  

YAKOUBI, B.  
"User education at the Oran University of Science and Technology". IATUL Quarterly 1, 1987, pp 63-67.

ZARTMAN, W.  

ZEROUK, S.  
APPENDIX 1

QUESTIONS FOR HEADS AND LECTURERS OF THE THREE INSTITUTES OF LIBRARY EDUCATION IN ALGERIA

1. How was the curriculum established?

2. In what way could the curriculum be improved?

3. How often has the curriculum been revised?

4. To what extent do you think the present curriculum has achieved an understanding of the basics of library and information field?

5. How does the present curriculum cope with the new developments in library education?

6. How do you think library and information education can contribute to the development of education?

7. What are the most serious problems faced by library schools in the country?

8. How do you see the future development of library education in Algeria?

9. Is there anything else you would like to add?
APPENDIX 2
QUESTIONS FOR PRESENT AND PREVIOUS STUDENTS
WHO ARE ALREADY WORKING

1. Why did you choose library studies?

2. How relevant do you think the curriculum is?

3. What part of the curriculum should be retained and/or improved to meet your needs?

4. What do you think are the current trends in library education which are not covered by the curriculum and that should have been?

5. What do you think of the teaching/learning methodologies and facilities?

6. How much understanding of library and information practice have you gained through this programme?

7. What are the most serious problems you faced when you started working?

8. What part of the curriculum did you find most useful to your job now?

9. Has your library qualification added anything to your personal development i.e. more confidence in doing the job, better communication skills, efficiency in public relations etc?

10. How do you see the future of librarianship in the country?

* Questions 7-8 and 9 are asked to previous students only.
APPENDIX 3

QUESTIONS FOR HEADS OF BRITISH LIBRARY SCHOOLS AND A FEW PRACTITIONERS

1. What factors should be considered when planning curriculum development?

2. What are the advantages of developing a national curriculum for library and information studies and what would be the value of such a curriculum in the national context?

3. How could library education in developing countries cope with the new approaches to curriculum development?

4. To what level is it preferable to train/educate information workers in developing countries?

5. To what extent should the library/information curriculum achieve a balance between professional subjects and non-professional ones?

6. How do you see the future of library education and libraries in developing countries?
Heads of Library Schools interviewed were:

In Algeria:

- Miss Hahima, Semra, Acting Head of the Institute of Library Education, Constantine University.

- Miss Badia Yacine, Head of the Institute of Oran University.

- The Deputy Head of the Institute of Algiers (the Head was not available during the period of the survey).

- Mr Chafai and Amara, founders of the Institute of Algiers.

- A Tachour and Sari amongst founders of the DSB of Constantine.

- Yakoubi, one of the founders of the Institute of Oran.

In the United Kingdom:

- Professor Bottle of City University.
- Professor Cantor, Department of Education, Loughborough University.
- Professor Cronin of Strathclyde University.
- Mr Hogg of the College of Librarianship, Wales.
- Professor McGarry of the Polytechnic of North London.
- Professor Meadows of Loughborough University.
- Professor Wilson of Sheffield University.
Appendix 5: EARLY CURRICULUM.
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**STAGE DE 10 DEUX-JOURNÉES DANS UNE BIBLIOTHÈQUE, UN CENTRE DE DOCUMENTATION OU UN CENTRE D'ARCHIVES.**

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**STAGE DE 10 DEUX-JOURNÉES DANS UNE BIBLIOTHÈQUE, UN CENTRE DE DOC. OU UN CENTRE D'ARCHIVES AUTRE QUE CELUI CHOISI EN SEMESTRE 5**
### SEMESTRE 1 - 7

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**SÉMINAIRE**

STAGE DE 10 DEMI-JOURNÉES DANS UNE BIBLIOTHÈQUE, UN CENTRE DE DOCUMENTATION OU UN CENTRE D'ARCHIVES.

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STAGE DE 6 MOIS (1 DEMI-JOURNÉE/SEMAINE) UN CENTRE AUTRE QUE CELUI CHOISI AU 55/86.

**MÉMOIRE DE FIN DE LICENCE**
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### COEFFICIENTS DES MODULES DU SEMESTRE 8

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