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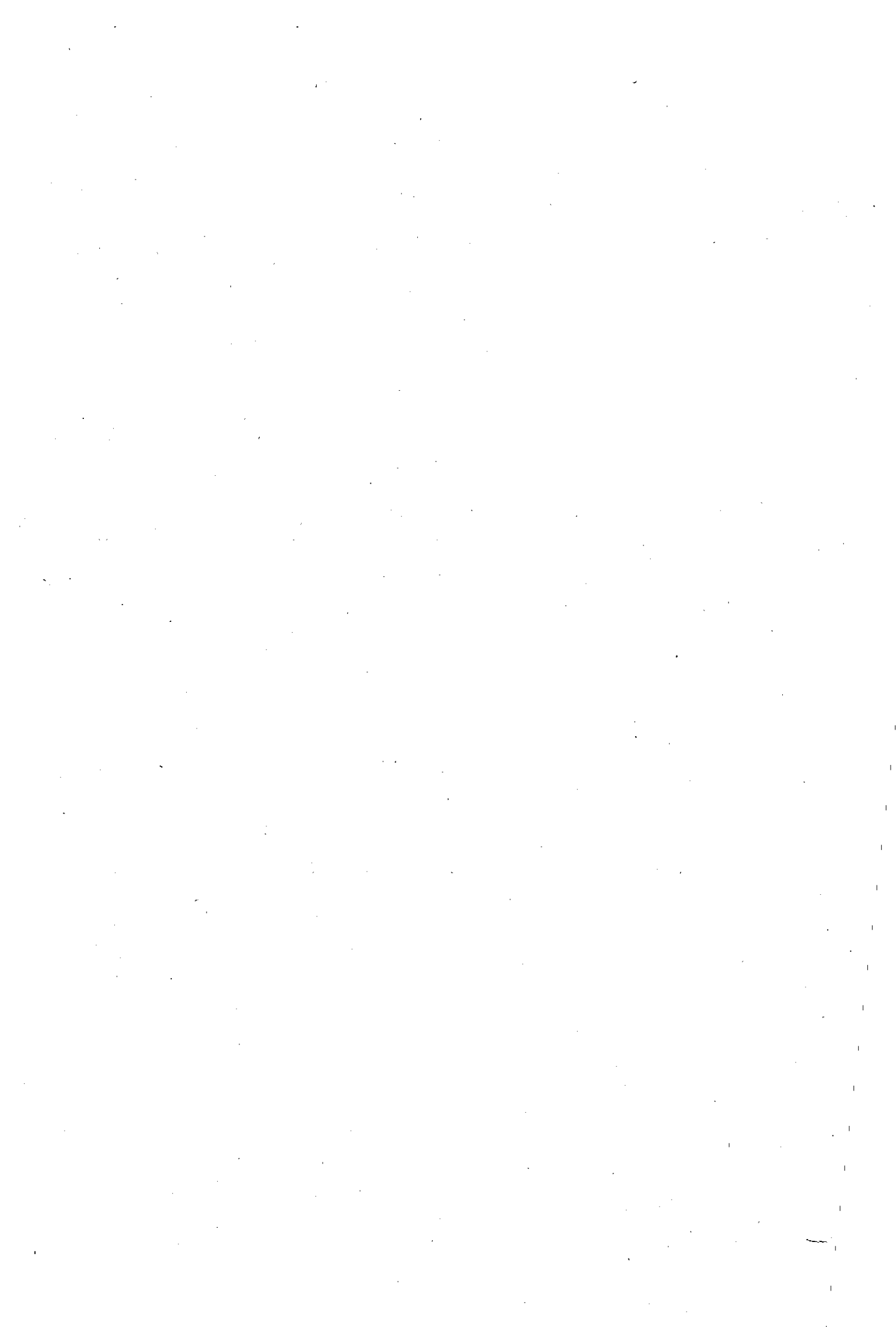


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EDUCATION FOR DEVELOPMENT IN IRAQ
WITH SPECIAL REFERENCE TO THE
DIVERSIFICATION OF SECONDARY EDUCATION

by

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BA; Adv Dip Ed; MEd

A Doctoral Thesis

Submitted in partial fulfilment of the requirements
for the award of Doctor of Philosophy of the
Loughborough University of Technology.

November 1985

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Dean of the School of Education and Humanities

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ABSTRACT

While it is true that educating and improving the human skills in a country can have positive effects on social and economic development, there are also clear indications that unplanned expansion of the educational system in a large number of developing countries has given rise to serious problems in terms of the supply of technical skills and massive influx of secondary school graduates into higher education. Therefore there is an urgent need to restructure the educational system, especially the secondary education level, to meet the country's rising demand for a progressive economy and advanced industry, and to keep it in line with social demand and higher education capacity.

Against this background, three main purposes for this study were envisaged, namely 1) to describe and analyse Iraqi educational system, and trace its development up to 1984, 2) to identify major operational problems impeding sound progress of the system, and 3) to make suggestions after examining the major problems of secondary education, through a survey conducted in Iraqi schools, for alternative organisation.

In order to achieve these purposes, the following specific objectives are developed as guidelines for conducting the research: a) to develop a conceptual framework for the study and rationale for secondary education in developing countries; b) to describe the development of the Iraqi educational system; c) to discuss the ecological factors, especially economic, social and industrial, currently affecting secondary education; d) to investigate, discuss and analyse the existing secondary education and identify its problems through a survey conducted in Iraqi secondary schools. Students, teachers and administrators were involved in this survey; and e) to draw conclusions and make suggestions for possible improvements to secondary education to supply both universities and the labour market with qualified and well-trained graduates.

The thesis is divided into three parts which comprise twelve chapters. Part One represents Chapter I, containing

introductory information about the study; Chapter 2, offering theoretical conceptual framework for the educational developments in developing countries with emphasis on diversifying secondary education; Chapter 3, dealing with the historical, geographical and social background of Iraq; Chapter 4, describing the development of the Iraqi economy and its impact on education during 1958-1984; Chapter 5 dealing with the Iraqi educational system, origin, present curricular structure, administration, organisation and finance; and Chapter 6 dealing with trends and problems in vocational education and its relation to the human resources planning in Iraq.

Part Two of the this begins with Chapter 7, which contains the sample and sampling procedures used in the survey, followed by Chapter 8, which deals with the questionnaire from the survey conducted in Iraq. It also contains the coding, data processing and techniques of analysis which are employed in the survey.

Part Three of the thesis deals with the analysis of the results of the questionnaires for the students, and teachers, and interviews of the administrators (Chapters 9, 10 and 11). Chapter 12 provides a summary of the findings emerging from the survey, and it also offers general conclusions and recommendations.

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CHAPTER ONE

- 1.1 Introduction
- 1.2 Statement of the problem and its importance
- 1.3 Aim of the study and areas of investigation
- 1.4 Framework of analysis
- 1.5 Research procedure and sources
- 1.6 Summary of chapters

CHAPTER ONE1.1 Introduction

In Iraq, as elsewhere in developing countries which were soon to attempt a rapid development of their people and resources with a view to achieving economic progress along the lines of the rapidly industrialising world, it was necessary to absorb much of the scientific and technological knowledge associated with the application of modern methods in agriculture and industry. This in turn called for the use of foreign technical assistance, the establishment of new educational institutions, advances in organising and managerial capacities and, perhaps the most difficult, for changes in the attitudes and attributes of the population towards working labour.

Iraqi society, which is shaped by strong traditional forces, is undergoing a process of modernisation. The criteria of modernity may be defined as an advanced technology with citizens able to live and function in a technologically advanced society which is flexible enough to respond to the evolving, self-sustaining, transformation of its values and institutions. (Szyliowicz, 1973, pp 5-6.) To reach a state of modernity, the educational institutions of Iraq, particularly the higher educational institutions, must play a vital role in the process of social and economic development. Their responsibility is to provide society with the necessary human resources, scientific, technical, professional and administrative, to promote socio-economic development; to establish new social values pertaining to such development; and to discover solutions to problems related to this development.

Iraq's main problem is one which, to a greater or lesser degree, confronts all socio-economic development plans, resulting partially from the lack of well-trained technical personnel who are capable of meeting the demands of an expanding economy. Despite the remarkable increase in native talent, Iraq has not been able to dispense with

the assistance of foreign technicians and advisers. The very rate of Iraq's economic progress and the increase of trained personnel are racing one another. Iraq, like many other developing countries, appears to have laboured under the illusion that plenty of capital, large quantities of imported industrial equipment, and a battalion of foreign technicians would somehow add up to national economic development. Current planning places more emphasis than in the past upon the development of human resources as the first and indispensable step towards the exploitation of the country's national wealth. The main objective has been the gradual transformation of a pre-industrial and predominantly agricultural system into a modern and diversified economy.

Iraq is a rich country in its natural resources but the society is characterised by the features of an underdeveloped economy and its natural and human resources are very poorly utilised. Al-Rubaiy, 1974, points out that "until the last decade of the Monarchical period (Iraq was a Monarchical regime until the revolution of July 14th, 1958, which marked the start of the new republican regime), Iraq could only be regarded as being economically in an underdeveloped stage" (p 116). This underdeveloped state is clearly related to the country's high rate of illiteracy as well as the social structures and prevailing values, which have their roots in the traditional tribal background. These were among the factors which led to a change in the role of government in the social and economic life of Iraq. In the past, the government's role was confined mainly to keeping order inside the country and protecting its sovereignty. However, during the last two decades, the government has become more involved in the country's social and economic affairs and has adopted the policy of a planned economy. Al-Rubaiy also wrote:-

"Since the last decade of the Monarchical period and during the subsequent Republican decade, Iraq's economy has developed a growth momentum with the potential to move out of the state of underdevelopment. This prospect was mainly due

to economic planning for development based on an increased oil revenue. These new revenues were used by successive governments to carry out different policies to develop the nation's idle resources." (p 116)

The discussion in the following chapters will show that such policy of planned economy to move Iraq from under-development, needs a considerable skilled manpower with knowledge which is necessary to analyse and discover possible solutions for the existing problems and appropriate means to achieve national development. This resulted in a demand on the part of the planning and political authorities - who were disturbed about the inadequate output of the educational system in terms of quantity and quality - in a change of policy and orientation towards secondary education. A growing realisation of the importance of reorganising secondary education began to show; and the feeling of necessity for an effective change of policy towards this type of education was visible. "We must urgently tackle the problem of secondary education", the Political Report of the Eighth as well as the Ninth Congress of the Arab Ba'th Socialist Party (1974, 1982) asserted, "whose inadequacies jeopardise the National Development Plans and the proper functioning of production and services in the country. What has been done in this domain falls far short of requirements" (Arab Ba'th Socialist Party, June 1982). Therefore, the need for qualified manpower is no less significant than the need for capital or for natural resources in economic and social development. Educational institutions must assume responsibility for providing the required manpower, with a consideration for not only quantity, but also the quality. It has been stated that "through education the future can become to a great extent what we want it to be. Planned change in education will require that more attention and more effort be devoted to planning, programming and budgetting for evaluating and managing the education process" (Morphet, 1972, p 15).

Accordingly, Iraq worked continually to upgrade and improve its educational system to provide a higher quality of technical and vocational education, as well as the necessary knowledge and skills for social and economic development. A report of the UNESCO and the Arab Organisation for Education, Culture and Science Conference indicated:-

"Iraq, and the other Arab States, has for some time been following the path of educational renewal in order to achieve the democratisation of education, the strengthening of cultural identity and development of science and technology necessary for progress. Education must, therefore, train the qualified personnel needed for development at all levels, must be closely related to the world of work, and must prepare students for that world by providing them with the necessary skills and aptitude (abilities) and by giving suitable prominence to the teaching of science, as regards both content and methods, to technical and vocational education and to productive work. It is important in this respect to pursue and intensify the efforts already undertaken to improve the quality of educational systems and services, adapting them to existing and anticipated requirements." (UNESCO, 1977, vol xxiii, No. 11-12, p 270)

Achieving a successful result, however, would depend to a considerable extent upon the planning of human resources and upon the condition of the existing and proposed educational institutions. These institutions, in turn, must be planned in the light of a general economic plan which considers, for example, expected changes in the supply and demand of the work force. Moreover, the needs of technological and industrialising society impose the necessity for matching educational output with pro-

fessional manpower requirements. So the practical applications of educational planning are of evident importance. However, the major development in educational activities in Iraq took place after the 1958 revolution, when the government started a reform of its educational policy. It adopted an open-door policy, which let everyone in who wished, allowed them to stay in for as long as they liked and to go as far as they pleased, as well as free education at all levels. The dramatic increase of students as well as schools, in a very short period, led directly to a multitude of problems which aggravated inherited inadequacies in the areas of: (1) administration and organisation; (2) educational resources and facilities, i.e. students, teachers, equipment, laboratories, libraries, textbooks and aids, and other resources; (3) curriculum and methods.

In fact, education in Iraq has many problems which hinder its potential to contribute to national development. Some of these problems have their roots in the country's political history, as well as its social institutions and its values, and others are caused by the lack of proper planning, which itself is influenced by the previously mentioned factors.

1.2 Statement of the Problem and its Importance

Due to the availability of natural resources, i.e. oil, natural gas, phosphate and adequate water supply, as well as fertile soil, Iraq has been in an improving position enabling it to embark on comprehensive programmes for the modernisation of its social and economic aspects. This has been helped by government policies which aim to accelerate integration between natural resources, especially oil, and development plans in order to diversify the economy (National Development Plan 1976-80 and item 4.2).

However, the process of this massive development plan has been handicapped by inadequate supplies of technically qualified manpower which are required by the economy both quantitatively and qualitatively.

The educational policy in Iraq is intended to re-organise education at its various levels and to link education with economic development plans, and the greatest efforts are being exerted to encourage scientific, professional, vocational and technical studies. Vocational training, with its various branches and fields, is the object of special attention and as a result the number of students in the scientific and technical branches of the universities has been increased. This should permit the training of the necessary technicians required for the implementation of the major development projects of the state.

Iraqi planners and policy-makers suggested that formal education is responsible for the generation of technically qualified manpower, also other sources for training workers include non-formal vocational training and on-the-job training, but the latter is not quantified in the Iraqi literature.

The establishment of large development projects, especially in the post-1968 period, constituted a remarkable challenge to education. This resulted on the part of the planning and political authorities - who were disturbed about the inadequate output of vocationally trained manpower in terms of quantity and quality - in a change of policy and orientation towards the need for trained manpower. A growing realisation of the importance of secondary education as an important educational stage became evident; and a feeling of the necessity for an effective change of policy towards this type of education was visible.

This changing of policy and attitude regarding secondary education and its relation to the supply of technically trained manpower found expression in recent attempts to diversify it. Many attempts have been made since 1974 with no successful result worth mentioning; a variety of financial and technical commitments plus other incentives were provided just to make such attempts

workable but neither the students nor job prospects were encouraging.

As a result of this failure, secondary education with its two streams (scientific and literary) has undergone tremendous growth in terms of students numbers (see Table 1), as well as teachers due to the opening of three extra teacher training colleges.

Table 1

<u>Year</u>	<u>Student Numbers</u>	<u>Schools</u>	<u>Teachers</u>
1968-69	285,700	520	9,820
1974-75	452,594	1,095	16,666
1980-81	950,142	1,891	28,453
1983-84	962,003	2,027	36,144

Sources: (1) "Annual Abstract Statistics" Ministry of Planning - Central Statistical Organisation p 227, 1980
 (2) "Education in Iraq" Ministry of Education - Directorate General of Educational Planning, Statistical Department p 8, 1984

The dramatic increase in school students in such a short period confronted secondary education with a multitude of problems which aggravated inherited inadequacies as previously mentioned, (see p 6), and produced a further problem, the influx of numbers of graduates with specialisations not related to the economic development plans.

The system has not been able to cope with the challenges created by accelerating the modernisation process as well. Such problems in the area of organisation and administration include: lack of co-operation between school and industry, absence of a mechanism for co-ordination of vocational training activities of various institutions and ministries, and the absence of co-ordination of vocational courses with academic syllabuses in formal secondary education, as well as problems like crowded classrooms resulting from the admission of students beyond the capacity of available resources. It is noted that curriculum, syllabus and

methods are far from being adequate for sufficient preparation of student-trainees to the world of work. What is needed, actually, is special stress on different channels besides the scientific and literary secondary education in order to provide the country with skilled manpower, whether full- or semi-skilled, as required by the various fields of development. (Arab Ba'ath Socialist Party, 1974, p 257). Against this background, studies on the functioning or malfunctioning of the Iraqi formal secondary education and its articulation seem to be useful and timely. This study endeavours to identify problems in three major areas, namely: administration and organisation; educational resources; curriculum and methods employed by formal secondary education. A conceptual framework for the discussion of secondary education in developing countries both during colonial and independence periods has been drawn from available literature at international level, and the experience of some industrially developed countries which provide different courses in formal secondary education, especially the USA and the Soviet Union, plus others, has been taken into account in some related literature. This is intended to provide elements for the explanation and analysis of Iraqi secondary education, and to serve as landmarks against which suggestions and proposals for possible improvement of the Iraqi secondary education system could be worked out.

A variety of problems have been encountered in undertaking this study. The most serious is the lack of recent serious study on the matter and inadequate data. Most of the data required is either incomplete or unavailable. There is a lack of organised and accurate statistical records on education in general and secondary education as well. Many of them are considered as "classified information", hence not for circulation.

1.3 Aims of the Study and Areas of Investigation

Education, especially in a country like Iraq, is supposed to help rather than hinder its socio-economic development and to avoid any further waste of human resources

and money. But despite noticeable advances and reforms in Iraqi education over the last twenty years, its human resources development has not met the challenges posed by accelerating modernisation processes.

However, several problems appeared, as a result of increasing enrolment, and because most of the targets were not carefully planned and tested against the country's development plans, they were found to be unrealistic. Where the government felt that their credibility depended on meeting their targets, the solution was to accept more and more students, but at the expense of quality and effectiveness, as Coombs observed:

"It permitted the statistics of enrolments to keep rising along the target path, and sometimes even above it, but it seemed a dubious kind of progress when we delved behind the gross enrolment statistics and saw the shockingly high rate of drop-out and repeater rates, or visited over-crowded classrooms and observed what was going on there in the name of education." (1971, p 27)

Moreover, the rapid expansion was not tempered by a discriminating appraisal of the content of education nor was it moderated by consideration of direction of educational development for the prospective needs of the country. The result of all this was the waste of human potential and serious handicap to national development and this is due to poor planning, also a great deal depended on carefully formulated secondary schooling to avoid the problem of educated students who do not fit the needs of a development plan. The educational institutions are not practically preparing the numbers and types of manpower which would best contribute towards economic development and social progress.

In recent years the government indicated that widespread changes in Iraqi educational systems were needed and

these must be effective, and carried out comprehensively, embracing all types and levels of education, including in particular the secondary academic and vocational level. It is obvious from this statement that educational plans and policies for Iraq must also be formulated in the light of the socio-economic problems of the country.

The expansion in secondary and higher education, for example, is mostly in the field of liberal arts, where the number of students registered for the first year in 1983-84 reached 8,969, while there is little emphasis on vocational training and shortages exist, particularly in engineering, agricultural technicians and medical assistants, as well as in other specializations, where the students registering for the first year in 1983-84 reached 3,890 students.

A premise of this study is the notion that "education - when properly organised and oriented both quantitatively and qualitatively - is an effective force in achieving the desired movements in the economic, social and political fields and in enabling Iraq to meet the challenges and overcome the difficulties which confront it" (El-Ghannam, 1978, p 21). Several other premises will also be adopted in this study:

- 1) The success or failure of socio-economic development programmes in Iraq depends to some extent on how well the educational strategies are orientated to meet the challenges of rapid modernisation;
- 2) The educational system will figure more significantly in national development if educational plans and other development programmes are both integrated towards common socio-economic objectives;
- 3) Although planning for education and manpower development is a viable way of progress, education planning is merely one and not necessarily the only significant determining factor in national development. Therefore, if educational and manpower development plans are to be critically worded out and properly

implemented, a careful planning and reorganising of secondary education, especially in the light of the country's problems and needs, should be instituted.

However, it is assumed throughout this study that the present Iraqi educational system in general, and secondary education in particular, lack effective planning in terms of curriculum. With the increasing importance of the technological changes and industrial advancement, it is noted that the curriculum, and teaching methods as well, are far from being adequate for sufficient preparation of students trained either for the "world of work" or proper choice of higher education, and this is one of the main reasons which is responsible for the existing problem of the inadequacy in terms of quantity as well as quality, of qualified manpower to meet the requirements of the expanding Iraqi economy and industry.

Under such circumstances, planning a realistic secondary education which is capable of training students academically as well as training them adequately for the world of work, and to meet the country's rising demand for a progressive economy and advanced industry, needs to be in harmony with the nature of the social, economic, as well as political, objectives of the government.

The political report adopted by the Eighth and Ninth Regional Congresses of Arab Ba'ath Socialist Party (ABSP) in 1974 and June 1982, repeatedly pointed out:

"The necessity of changing the old educational programmes and paying great attention to technical education is still pressing urgently and delaying the development programmes.

Schools and universities are producing annually tens of thousands of students who are of no use to the industrial, agricultural or services programmes and development. The government finds it

necessary to find jobs for these graduates in institutions which are already overstaffed. The institutions are suffering from disguised unemployment." (p 182 & p 377)

The reports laid great emphasis on the content of education, which does not mean there is any consideration of educational changes to meet the prospective needs of the country. This is a vast waste of human potential and a serious handicap to national development. The crude planning techniques used merely served the qualitative aspect of education, but failed to serve a quantitative expansion adequate for dealing with technological advancement, economic policies or manpower demands.

The reports also emphasised that the new phase requires a reappraisal of the whole educational system, to pay attention to the "internal logistics of the total educational system", and to co-ordinate elements within education or between education and other facets of socio-economic change. In other words, emphasis has been put on the need to relate educational development to overall socio-economic development, and it appears that Iraq has reached a stage in the education system in which crucial policy decisions have to be made if a dangerous situation is to be avoided.

Against this background, three primary purposes for this study were drawn, namely:

- 1) To describe and analyse current Iraqi educational systems and trace their development up to 1984;
- 2) To identify major operational problems impeding sound progress of the system; and
- 3) To make suggestions - after examining the major trends of secondary education - for alternative organisation.

These purposes must be recognised if a future place for education and plans for the development of human resources in the country are to be formulated in order to promote national development and modernisation. In order to achieve these purposes, the following specific objectives were developed as guidelines for conducting the research:

- 1) To develop a conceptual framework for the study and rationale for secondary education;
- 2) To describe the development of Iraq's educational system; and
- 3) To discuss the ecological factors, especially economic and industrial, currently affecting secondary education. The social, cultural and political factors that affect so much the three major areas of investigation into secondary education in Iraq will be accounted for as important components of the milieu in which secondary education is functioning; and finally
- 4) To investigate, discuss and analyse the existing secondary education and identify problems in terms of:

- (i) organisation and administration;
- (ii) educational resources; and
- (iii) curriculum and methods of preparing students in relation to the demands of academic and economic development as well as industrial advancement.

Various aspects of the curriculum, syllabuses and timetable trends and problems involved, problems affecting skill-training of students in the school and its relation to the industrial and economic needs will be discussed and analysed.

- 5) To draw conclusions and make suggestions for possible improvement of secondary education to supply the labour market, as well as the universities, with qualified and well-trained graduates.

1.4 Framework of Analysis

As has been indicated earlier, this study will make proposals for the possibility of diversifying the Iraqi secondary educational system to meet academic and technological demand as well as manpower requirements, and discuss the educational development in the Republic of Iraq for the period 1958 to 1984. The basis on which this study has been formulated requires some elaboration and justification at this stage.

It is generally recognised that education serves both individual and societal needs. Education is desired for the enrichment and development of the individual so as to enable him to live a more satisfying life. But to view education this way does not, of course, exclude vocational considerations; at the same time it is not limited to them. The objective should be to develop the individual's ability to function more effectively as a member of his work group and community; to prepare him for productive activity not only for the purpose of satisfying his desire for economic goods but also for the psychological satisfaction which creative activity brings; to develop his capacity for satisfying and purposeful use of leisure time (Parnes, 1962, p 14). Just as education has both vocational and cultural significance to an individual, so it serves both economic and non-economic ends as far as society is concerned. The contribution of education to economic growth through the creation of an educated and skilled labour force is obvious, but no less important is the contribution that education makes to providing the citizenry with an understanding of the economic and social force that affects them. Such understanding is necessary for a viable democracy. Apart from this, decisions to provide, say, for social, cultural and political reasons are not without economic implications; for if literacy helps to introduce the masses of the population to the age of science and technology, it could be a potent stimulus to general social and economic advance. (Ibid, p 15).

If the foregoing analysis is valid, it points to the fact that the social and vocational aspects of education for both the individual and society at large are inextricably interrelated. Hence, in assessing educational requirements for a country, both the social and manpower aspects must logically be considered together.

In the past, this tendency to treat the social and manpower aspects of education separately has given rise to two criteria in assessing educational requirements; the "social demand approach" and the "manpower approach". And, unfortunately, in much of the literature on educational planning these two approaches have been regarded as if they are alternative rather than complementary approaches. Sound reorganisation and any changes must make use of both these approaches. In fact, a closer look at some of the plans which are classified as having followed the manpower approach reveals that such plans do give a large place to the social and cultural aspects of education, even though manpower consideration ranks high.* No generalisation can be made as to how to combine these two approaches and what weights to give to the economic and social objectives.

How this combination can be made in assessing the educational requirements of a particular country depends on a number of factors: the governing philosophy of the country's educational, social and economic policies, the financial constraints which it faces, the existing economic and labour market conditions and the kinds of data available for planning and organising the educational system.

In this study, both social demand approach and the manpower approach have been used to determine the future pattern

* See, for example, OECD, The Mediterranean Regional Project: An Experiment in Planning by Six Countries - including the various Country Reports: Turkey, Italy, Spain, Greece, Portugal and Yugoslavia. Also useful to see Botswana, Ministry of Finance and Development Planning, Manpower and Employment in Botswana, Gaborona; Government Printers, 1973

of secondary education requirements in the country.

With regard to all education levels (primary, secondary and higher) Iraq is committed to a policy of:

- 1) Free compulsory education (from 6 - 12 years of age)
- 2) Providing places for all students in the relevant age group who wish to pursue lower and upper secondary education; and
- 3) Offering, as far as possible, enough places to absorb the students who seek higher education in ever increasing numbers.

As such, if the proposal for the development of secondary education is to be prepared, it should be formulated within this broad policy framework.

Since 1968, Iraq has moved into a period of massive economic and developmental planning and it can be argued that educational development at both secondary and higher levels should be broadly related to future manpower requirements in that there must be sufficient, appropriately educated manpower to implement the development programmes. In view of the fact that some development programmes have become increasingly ambitious, this is a particularly important consideration. In less explicit economic terms, there is also a case for trying to ensure that those who have received their proper education will find jobs offering a reasonable outlet for their kind of training. Decisions for individuals about future courses of study will be more realistic and more in line with national needs if the educational system is itself broadly related to the requirements of the development. But unfortunately, even in recent years, the lower educational levels, especially secondary education, in Iraq have been, to some extent, guided by a somewhat specific educational policy; the direction of which way it should move has been less certain. Estimates of future educated manpower as well as available places in higher education, are needed to provide useful guides to better planning for the crucial stages

in educational development. The details of this are explained in Chapters Five and Six.

In formulating educational strategy for social and economic development of a country, supportive social attitudes will play a crucial role in accelerating the successful result of any attempt at adopting a new policy in educational fields. There are many reasons for this. The many programmes that have been adopted by the authorities in recent years have failed, for example in 1975, the Ministry of Education appointed a committee to study the possibility of raising student numbers in vocational education to 50 per cent of the total students who go into secondary education, but the whole work has been cancelled because of the negative social attitudes towards any such decision. Later, in 1980, the Ministry of Education made a decision to divert 30 per cent of secondary school students into vocational education, and this decision also failed for the same reason. Moreover the lack of any ideas about these programmes provided the right atmosphere for this hostility from the people as a whole; all this make any changes in education difficult. Therefore, the study makes proposals for the setting up of an appropriate framework for the long-term development of the problem that the educational system has suffered from.

1.5 Research Procedure and Sources

In order to develop a general framework for the study and the methods being used have relied basically on concepts from literature on educational development and human resources; educational and vocational-technical training; special emphasis has been laid on literature (Iraqi and foreign) mainly related to the secondary academic and vocational education in Iraq and abroad.

As far as the presentation of the Iraqi case is concerned, this research has developed analysis and criticism based on the following data sources:

- 1) Analysis of written literature and information, as well as data concerning secondary education in the three areas of investigation mentioned above.
- 2) Examining and analysing all available documents, reports, records, rules and regulations of the Ministry of Education.
- 3) Statistical information, programmes, journals, manpower reports, vocational education committee's reports, books and field works published by the Ministry of Education and Ministry of Planning.
- 4) Surveys and reports related to Iraqi social, economic and industrial development published by UNESCO and Arab information centres as well.
- 5) A visit has been made to Iraq to conduct a questionnaire and a survey to various specialists in secondary academic and vocational education, such as general directors (administrators), supervisors, inspectors, teachers and students to gather information and opinions of the current programmes and student expectations of them, as well as interviews with the policy makers, planning personnel and management. All the collected data has been analysed to assess the status of secondary education in Iraq and the problems created by the lack of academic and career guidance on the one hand, and the lack of any meaningful co-ordination between the market demand and the educational system on the other.
- 6) Much data and information has been secured through the examination of government records, including files, memoranda, published and unpublished documents. On general economic, social and educational aspects, official publications of the Iraqi government have provided most of the statistics on the economic, social and demographic situation. Particularly relevant was the Ministry of Planning "Annual Abstract of Statistics" which provides figures on various aspects of the economy and society. An abridged

form is provided by the Ministry of Planning Central Statistical Organisation "Statistical Pocket Book".

The Ministry of Education "Annual Statistical Reports were the basic source for data on development of the Iraqi educational system.

As a period under review, it has to be noted that the emphasis of this study is the years between 1958 and 1984. The year 1958 was chosen as a strong starting point because in that year a revolution took place and the country changed from a monarchy to a Republic. This major political change resulted in radical social and economic changes which distinguished this period from pre-1958 Iraq. However, in 1968 another revolution happened and the present regime, which is led by the Arab Ba'ath Socialist Party, came to power. In this study, special emphasis has been given to the post-1968 period because of its strong connection with present day diversified secondary education on its limited base which is the major concern of this study.

Like other stages of education, secondary education is not working in isolation; it is influenced by external factors: social, economic, political and cultural, which have been explained as they are interrelated to secondary education policies and practices so far. Hence, the attempt is to define the role of secondary education in a broad social and economic context and to identify the factors of diversifying it, which promise to influence future direction of this important educational stage.

1.6 Organisation of the Study

The thesis is divided into three parts which comprise Twelve chapters. Part One represents Chapter One which contains introductory information about the study. Chapter Two offers theoretical conceptual framework for the educational developments in developing countries with emphasis on diversifying secondary education, and it also discusses some of the problems related to educational development in developing countries. Chapter Three is intended to provide a picture of the economy of Iraq and its relation to

education. Chapter Four deals with the geographical and social background of Iraq, Chapter Five provides an examination of the trends and problems of educational development in Iraq at primary, secondary and higher educational levels. Chapter Six on the other hand, deals with vocational education and the problems relating to skilled manpower. Part Two of the thesis begins with Chapter Seven, which deals with the sample and the sampling procedures, Chapter Eight follows this by dealing with the questionnaire and survey, and also explains the coding, data processing and techniques of analysis which are employed in the survey.

Part Three of the thesis deals with the results in Chapters Nine, Ten and Eleven. Chapter Twelve provides summary of the analysis. The whole study is concluded in Chapter twelve which makes recommendations for possible improvements in secondary education, especially its relation to the socio-economic development plans.

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CHAPTER TWO

Theoretical and Conceptual Framework of the Study in Developing Countries

- 2.1 Introduction
- 2.2 Historical Background
- 2.3 The Crucial Position of the Secondary Schools
- 2.4 Comprehensive versus Separate Vocational School
Argument
- 2.5 Iraqi Studies

Theoretical Conceptual Framework of the Study2.1 Introduction

In recent years, it has been observed that the question of preparing young people for the world of work as well as giving them an education beneficial to their future requirements, especially in a changing economic, social and political system, is receiving greater attention from policy makers and planners concerned with education and human resources development. This is due either to shortages of skilled manpower for development and industrial projects or the problem of the education of the unemployed or for both reasons.

Many people think that industrialisation is the key to development. This is especially true if coupled with efforts to integrate the industrial and the agricultural sectors. Industrial development, naturally, depends to a large extent on an efficient educational system ready to provide skills at the time and place required (Unido, 1969, p 5), as well as the knowledge and capacities of persons to participate in the labour force and to help enrich human life, to develop man and his intellect, to make him more sensitive to people and things around him, adaptable to technological, industrial, economic and social changes, and to inculcate in the students the philosophies of social, economic and political national order (Harbison, 1973, pp17, 53). Education in developing countries is regarded as one of the true guarantees of social equality and economic advancement as well as political achievement. Studies and investigations carried out in these areas dealt almost entirely with education in general until recently when researchers started to investigate the possibility of linking education with the preparation of skilled manpower because of the massive development in the area, especially in the rich states, i.e. Kuwait, Saudi Arabia and others. Many theories have arisen in connection with planning suitable secondary education to supply the market with

necessary manpower and to avoid economic waste as well as pressure on universities. However, unfortunately all developing countries suffered from the problem of the irrelevance of their educational system (Carnoy, 1974; Mannoui, 1956; Fanon, 1968), due to its origin which was in a colonial power whose economic and social conditions and cultural heritage were very different from their own. The educational systems required in developing countries should first of all depend on the social structure and the cultural goals of their populations, on the demands for, and status accorded to, different occupations, and on the general political and administrative systems (UNESCO, 1964). Anderson, 1973, and Foster, 1965, have argued that for developing countries, rural training is far more important than the kinds of training given in urban schools which were established by a colonial power. Mende, 1973, pointed out that the role of colonial education was causing a great gulf to exist between educated elites and the masses as a whole. Therefore, an imported curriculum and methods could not fit their needs, furthermore, with changing conditions of modernisation and national development, the system was rapidly becoming irrelevant (Watson, 1979, p 9).

One striking aspect of most educational problems is not just that the school system has been derived from European or American models but that it has been left largely untouched and just criticised from within the countries concerned. Critics have been generally a radical minority, feeling that if education is to have a vital role to play in national, social and economic development, it needs to be reformed to take into account local needs and indigenous culture, making it far more concerned with the local situation and realities of the employment market. Therefore many of the views currently being expressed by the World Bank 1980, and other international agencies recognise the necessity of having school systems linked with the local community and advocate using some of the traditional pattern more effectively. Instead of aiming at producing numerous clerks, lawyers and administrators, greater

emphasis should be placed on training better farmers, engineers, entrepreneurs, agronomists, scientists and so forth (Watson, 1982). In fact, instead of being drastically changed, the schools system has been expanded dramatically to cope with increasing demand and a rising birth rate. The expansion of formal schooling came largely because of the politicians' demand; development economists and educationalists believed in the myth of educational miracles and that education was essential for social and economic development (Adams and Bjork, 1971; Coleman, 1965; Harbison and Mayers, 1964), because they view the school system as an avenue of upward social mobility, but unfortunately there was little concern for developing adult literacy, vocational education or secondary and higher education. However, it is wise to go back to the origins of the educational system in developing countries, to avoid this misapprehension presented by different authors, and also to present the relation between the development of the education and the influences of the different political, social and economic changes that developing countries have been through.

2.2 Historical Background

Early writing about education in the developing countries was mainly focussed on education and colonialism; with European writers concentrating mainly on Africa, Asia and Latin America. During the 1920s and 1930s, with the Phelps-Stock Commissions examining education first in West Africa, and then to the East of it (Berman, 1971; Jones, 1922, 1925; Lewis, 1962), and with missionary societies re-examining their policy at conferences in Jerusalem in 1928 and Madras in 1938, serious doubts began to be expressed about the direction of colonial educational policies.

Missionaries travelled to the colonial parts, partly to care for the souls of traders who had gone to the Far East and deep into Africa to secure trading posts in the territorial conquest, and partly to convert the natives to Christianity.

As Scott, 1937; Lewis, 1954; and Furnival, 1956, pointed out, there was a time when colonial education was left in the hands of missionaries and the colonial governments, in the early stages of the colonisation, ignored education, being more involved with law and order. There were no clear educational ideas nor any belief in education in most of the colonies. While the governments were involved in other things, educational matters were left in the hands of the missionaries, who were the only people offering education at that time. Lewis, in 1954, commented, "What distinguished the efforts of the Christian missionaries was its persistent and expanding nature" (p 10). Watson also pointed out that the impact of the missionaries on the educational development in the early years especially, was often far greater than that of the colonial government (1982, p 88).

Many missionaries began educational work before the colonial governments planned to do anything as far as education was concerned and later they were allowed to continue their work after the territory had changed status. Actually, they were never entirely free; the colonial governments supported them when it suited their purposes and placed restrictions on them when it seemed necessary in the light of their own aims (Lauwerys, 1967, ix). Their main aim in education was to teach basic literacy so that pupils could read the Bible; they opened up schools in inaccessible rural areas or in tribal areas in which the colonial governments had little interest. They also wanted "to provide a general education and a better standard of moral life based on the tenets of Christianity". Missionaries and administrators, both part of the colonial effort, did not always agree on the lines along which education should develop. Missionaries did not necessarily emphasise the vocational training, but preferred instead to stress moral education. What vocational training the churches sponsored at that time centred on developing catechists, clergy and auxiliaries for the missionary efforts (Altbach and Kelly, 1978, p 2), but in spite of the differences in educational policy and curriculum, there were many points of agreement between missionaries and

administrators. Both saw education as a means of accomplishing their own needs. Criticisms were always raised that the European powers did not develop adequate educational systems in their colonies before World War Two. However, what has been ignored is that the colonial powers acted from the highest motives according to their own educational experience and upbringing and the wisdom of the time, but we have to point out very clearly that policies of colonial governments differed according to the political conventions of the colonising nations. Spain and Portugal, from the beginning, sought economic domination. The French, likewise, sought economic domination, and moreover, they believed that they could create black, brown and yellow Frenchmen with the same views and outlooks as real Frenchmen.

As the literature indicates, French politicians and administrators believed in the superiority of French culture, language, literature and administrative structures; and the French language was used as a means of colonial domination and control while the indigenous language was scorned (Marshal, 1973; Asiwaju, 1975; Knight, 1965). What we came to see in French West Africa, North Africa - especially Algeria - and other French colonies, was that they became not only extensions of metropolitan France but, as what happened in reality to Algerians, Senegalese and Cambodians, they did develop the same views and values as Frenchmen. On the other hand, British policy varied from colony to colony, according to the strength of personality of the governor and according to the different racial and ethnic groups involved, like the Muslims in North Nigeria and Hindus. They expressed on many occasions that they should not be corrupted by contact with Western civilisation and should be allowed to live a relatively sheltered existence. While the French brought about cultural assimilation and imposed the French language on their colonies, the British treated different groups differently and also encouraged indigenous languages. For example, in Ceylon, the Singhalese and Tamils were treated differently, in Kenya and Mauritius the Africans and Asians were also treated differently. Later British

policy changed from belief in trusteeship and moral responsibility in the nineteenth century to a sense of obligation to subject peoples with a belief that the colonial purpose was to modernise societies and to hand over power to the local people later on.

As the nineteenth century progressed, the attitude of the colonial power towards education changed slowly. Watson, 1982, explained that the European powers did not develop adequate educational systems in their colonies before World War Two because "the compulsory state primary education was only introduced in England in the 1870s, after the 1870 Education Act indicated that the churches had failed to establish a full and acceptable primary education to all children, therefore the local authorities were encouraged to do the job. In France compulsory primary education was introduced in the 1880s for the same reason, and that in no European country was universal secondary education made available until well after the Second World War" (p 9). Scott, 1937, also indicated that no steps to formulate an educational policy, or at least to make it public, appear to have been taken before the First World War.

In spite of these explanations, the educational system during the colonial period, especially when governments took over from the missionaries, stressed moral and general education rather than vocational or practical courses. Recently, most of the writers, i.e. Carnoy, 1974; Fanon, 1969; Freire, 1971; Mamouni, 1963; Memni, 1965; Reinier, 1971; attacked all forms of colonialism, especially their impact on educational development. The colonial education has been accused by most of them of being little more than tools used by capitalists to exploit the underdeveloped world and to keep their peoples in subjection. Carnoy, 1974, argued that the primary purpose of the colonial schooling was control, and to build a cultural dependency on the educated and ruling classes so that revolutionary overthrow would never be a likely alternative; also, Furnival, 1956, pointed out that the colonial education policy sought to transform traditional

society to Westernised viewpoints. But this is not a general issue for all colonial powers. There were differences between the French, English and Dutch rule in South East Asia (Furnival, 1943) as well as the French and English in West Africa (Cligent and Foster, 1964). English policy in the Pacific Region, India and Malaya differed from that in West Africa. For example, the English government established vernacular primary education for certain groups in India and Malaya, and left English medium secondary education in the hands of the missionaries. The truth of the matter, as Carnoy observed, was that "there was no general re-thinking of education in the British Colonial Office between 1847 and 1925" (1974, p 139), they depended on recommendations and findings of the different Royal Commissions, and each colony evolved its own system independently. There was no blueprint for all colonies as there was for French policy because the French depended on a centralised system, therefore their educational policies in their colonies were largely the same. Mumouni, 1968 explained that the French restricted entry to secondary schools and to Western-type education in their colonies, because of their belief in centralised control they destroyed any sense of local initiative, besides money was not available for education, The result of these policies was that schools were few, of low grade and of poor quality. Another aspect of French policy was that a child who had reached the age of fifteen was expected to leave school regardless of his educational attainments.

This is in marked contrast with the situation in some English colonies. For example, in Tanganyika, adults were encouraged to come to school while parents in French West Africa were positively discouraged from seeking education for their children; they expected to pay tax for their children when they reached ten years of age. This resulted, as Asiweju pointed out, in the educated West African elite being far smaller than in the British colonies (1975, p 447). Moreover, English policy was concerned with developing local schools with local teachers, using local skills and crafts;

the French insisted on building replicas of French schools, complete with all French academic grades and standards. As Jean Capelle, 1949, observed, "the French colonial formula was: shape the natives in such a way that they may be efficient and devoted auxiliaries to the Europeans, and for most African children the value of French education was that it divorced them from their environment" (p 136).

This is how education was implemented, moreover, there was an uneven distribution of school provision throughout the colonies. Dual standards were encouraged, because of the urban colonial schools for the indigenous elite, but on the other hand, there were poor rural schools for those who could avail themselves of the opportunity whenever provided. There was no concern about education for employment, though many students who attended schools saw learning a European language and an examination qualification as offering a chance for employment in government service or in business or commerce.

From this we understand that educational standards were low, because the missionaries at first, then the colonial governments, saw education in functional terms, as a means of providing literate and numerate clerks for the civil service or commercial houses. Some believed that the education of indigenous people would be a mistake because it would lead to a rising expectation and aspiration which could not be fulfilled. This was especially true in Malaya (Watson, 1973) where early colonial administrators did their utmost to prevent rural Malaya from becoming "contaminated with Western ideas and culture". Others, however, like Macaulay in India, and many French colonial administrators, believed that the spread of Western schools would lead to greater co-operation with, and respect for, the colonial power on the part of the colonised peoples (Watson 1980b, p 26). This policy led to the decline of the traditional educational system at a certain time, because colonial educational systems were set deliberately to widen the gap between the traditional values and the indigenous, and those who attended the colonial schools

were prepared to fit into a different world from that in which they were born into. Because there was a lack of clarity regarding the society for which students were being prepared, colonial schools did not necessarily prepare for leadership either in the indigenous society or in the colonial society. They aimed to fit people into a world different from that in which they were born and in which their parents lived and worked. The curriculum and methods of teaching students also had a different outlook on the world, conditioned by European, rather than by indigenous, teaching and culture.

This was as true of the French schools of Indo-China as of the British schools in the Caribbean or in West and East Africa (Watson 1973a; Purcell, 1966). Another important reason related to the loss of the traditional system was the introduction of new economic structures into colonised societies, especially after the Second World War, which resulted in tremendous growth in the urban centres and increased demand for white collar workers in colonial government. This caused a need for colonial education and the knowledge and understanding of the colonial language. Some critics even claim that the content of schooling with its heavy emphasis on European civilisation and knowledge was deliberately designed to promote a sense of inferiority and inadequacy in the minds of colonial people (Carnoy, 1974; Fanon, 1968; Foster, 1965; Memmi, 1965).

The majority of the colonial schools were at primary level only. Some had upper primary or lower secondary levels attached, and until the 1930s there were no universities except in India and Indo-China. As Watson pointed out "these schools leading to nowhere and because they did not adequately prepare students for any role in society" for one reason, and for the other, because "being selective only a small percentage of the population attended them and because as a result at the time of independence levels of literacy were very low" (Watson, 1982, p 30). As a result of this policy many were alienated from their own society, but, at the same

time, were not fitted for colonial society. Jones, 1965, pointed out that these schools were designed for an elite who had mental ability and whose parents could afford the fees. The majority were modelled on English or French lines, therefore, for many pupils the curriculum imposed a great strain, partly because instruction was through the medium of a foreign language, but largely because of the irrelevance of much of the content to the local situation.

Further criticism has been focussed on the literary curriculum that prevailed in most colonial schools by the 1920s. Great emphasis was being put on academic study, with little attention given to agricultural studies and manual skills. This was partly due to the economic policy of the colonial government, which was not geared to absorb many skilled manual workers. But Foster, 1965, indicated that in spite of all the criticism of the educational system at that time, the demand for parents as well as pupils, was for an academic, literary education which was perceived as the route to success and secure employment in bureaucracy or business.

At least this is how education was viewed until the mid 1930s, too little emphasis was placed on developing the secondary sector and this had long term implications, especially in the shortage of trained middle-level manpower after independence. There were, in some territories, especially the British, some secondary schools modelled on the pattern of English grammar schools, with an emphasis on an academic and literary curriculum leading to examination (Jones, 1965). These academic syllabuses have been blamed for the excessive demand for white-collar jobs which led to urban migration and the consequent breakdown of traditional society (Carnoy, 1974; Clignet, 1971; 1980; Jones 1965). Generally, both in principle and practice, schools were designed for an elite who had mental ability and whose parents could pay the fees for such a system. As the report of the Gold Coast (Ghana) concluded, "the main danger is not the creation of unemployment, but the production by

the examination ridden secondary school of a class of unemployable who over-estimate their own achievement and worth" (1942).

Even more damning was the Jamaican Education Department report of 1950 which said that "secondary education has failed to serve adequately the peculiar needs of the country because of the Cambridge Examinations Syndicate" (1952). Similar views were echoed periodically in Ceylon, Malaya, Nigeria, Kenya and India.

All the authors who wrote about colonialism deal, explicitly or implicitly, with education. Memmi shows how the similarities and differences between the metropolitan and colonial school systems both work against the colonised. The curriculum and language of the colonial school, is, not surprisingly, the same as that of schools in metropolitan countries, especially schools for the poor; primary schools stress socialisation into European language, values and norms, "the history which is taught him - the colonised - is not his own. Everything seems to have taken place out of his country, the books talk to him of a world which in no way reminds him of his own. His teachers do not follow the same pattern as his father, they are not his wonderful and redeeming successors like every other teacher in the world" (Memmi, 1965, p 105).

Following the Second World War, new attitudes became apparent, especially when independence became seen as a means of national development, industrial modernisation and social reform aiding progress towards economic and social development and independence.

In the post war period, much greater emphasis was placed on the reassessment of the goals of education and on the need to build up a cadre of adequately trained secondary school leavers. There was gradual expansion of the school system by the introduction of tertiary level institutions and universities, inspired by the 1944 Education Act in England and Wales. There were attempts

to improve basic education especially in British colonies which had been devastated as a result of Japanese occupation, like Hong Kong, Malaya and Singapore, and the emphasis was placed first on rebuilding the school system and on welding together diverse ethnic groups with a sense of common identity (Mason, 1959; Watson, 1973a; 1979).

There was growing concern to reorganise the existing pattern of schooling amongst the educated classes in the developing countries. They believed in the necessity of having a school system linked with the local community's culture and tradition, because the colonial schools ignored the indigenous culture with the result that those who attended them gradually grew away from their original roots. They believed also that the schools should combine the values of both developed and underdeveloped worlds (Nyerere, 1964; Watson, 1973b, 1973c). Many of the views currently being expressed by the World Bank 1980 and other international agencies recognise the necessity of having school systems linked with the local community and advocate using some of the traditional patterns more effectively. In Thailand, for example, 20 per cent of primary schools are still based in Buddhist monasteries, while in Ethiopia, traditional church and also Koranic educational institutions are being used as part of the expansion of non-formal education programmes.

With the emergence in the mid-fifties of more nationalist and populist types of governments in, for example, Mexico, Brazil, Peru and most of the African countries, as well as Asian, primary education continued to be a central policy but they advocated expansion in the hope of securing support from the industrial urban proletariat who demanded greater opportunities in the educational system to secure their chances for social mobility (Unesco, 1964). During the fifties and early sixties, several educational agencies' meetings were held to form what might be called a developmentalist approach to educational change in the developing countries. It was very difficult in the early sixties to

identify what was the specific set of dominant ideas to help in developing education, especially in the poor countries, and their education system needed help from every sector of domestic life, especially a greater share of the nation's best educated men to raise the quality as well as the efficiency and the productivity of the educational system.

Judging from the data analysed for recent decades, the growth of education seems to be determined by the production structure, not because there is a growing demand for increasingly skilled manpower, as might be imagined under the manpower approach, but precisely because of the rigidity of the economic structure, which has resulted in the educational system becoming the only means of fulfilling hopes of social mobility (Filgueira, 1978, p 12).

The developing countries, then, require massive changes in patterns of education to exploit new technologies to which development ought to lead them, but what is not clear at all, however, is what kind of changes in education ought to be brought about to better realise development, or what effects educational investment may have in different contexts. Adam Curle noted (1964, p 97) "Contemporary attention is so concentrated on the role of education in development that we are inclined to forget its capacity to stunt growth. Yet in most societies for recorded time, education has been a reactionary force rather than a progressive one". Ivan Illich goes further when he argues that "schools rationalise the divine origin of social stratification with much more vigour than churches have ever done" (1973, p 363). But Parnes, 1968, had another, but more optimistic view in that he suggested that "any educational change in developing countries should be seen in relation to other factors, to a whole complex of urgent social and political welfare objectives, which are not directly served by economic objectives expressed in terms of manpower needs" (p 18).

The above discussion suggests that the realities of the developing countries and the structure of their economic

and political development runs counter to the ideology of "Human Capital and Structural Functionalism" which permeated the developmentalist theory and modernisation attempts of the sixties and the seventies educational change.

The process of change in the educational systems of developing countries in the past twenty-five years has had a fairly consistent direction throughout most of them. This is not necessarily the result of the analysis of common reality, because there are vast differences between the countries, but it seems largely to be due to the influence of technological advancement and industrial growth, especially at the end of the 1940s in the developed countries who contributed to the framing of what might be called a developmentalist approach to educational changes. But, we have to ask ourselves, what are the dominant ideas in this demand for educational change? In fact, it is difficult to identify a specific set of dominant ideas during the 1950s and 60s except for the notion of developing education in the poor countries.

Towards the end of the 1950s however, in the consideration of education as linked to social and economic development, educational changes were seen as a necessary factor to, and an integral constituent of, national development plans (Santiago Conference 1962; Unesco 1964). The sociology of structural functionalism and the "Human Capital Theory" (Schultz, 1961) helped to define what might be called the ideology of educational modernisation as input to economic development. As has been seen, economic modernisation was geared in the early sixties towards industrial growth and the substitution of imports; it assumed the development of a degree of local self-sufficiency to be expressed in the growth of each country's GNP of 4 per cent. Within the scope of this target, education was to serve the requirements of economic modernisation. With the view that the educational system is part of the wider social system, it was assumed that changes occurring in the structure and functions of both these systems would produce benefits to the society as

a whole. Furthermore, the "Human Capital Theory" assumed that investment in the development of human capacities, such as health education and special training, would enable the individual to improve his contribution to the productive process thus enabling better economic returns and greater equalisation of income amongst various groups (Carnoy 1974). Also, better educated people are likely to work more effectively and productively, make better decisions and be more highly motivated to improve on current technologies. But the debates among economists about the methodology of human capital theory are bewildering, as Williamson says (1979, p 16), and the referral in his argument to Blaug's research of actual results is disappointing. Blaug emphasised the importance of the human capital theory approach as a step in economic theory opening an argument and questions that have been virtually suppressed since Adam Smith. He calls the human capital perspective "a programme for research rather than a pronouncement of an indisputable insight" (1970, p 6). Bill Williamson pointed out that neither is it possible to support the opposite argument that investment in human capital through education is unproductive or counter-productive. As with most complex questions, it is the relationships that need to be examined; in the case of the human capital theory much more needs to be known about the way in which social and political structures in society respond to and mould patterns of educational investment and the results of that investment (1979, p 16). Hence, there is a positive correlation between education and economic growth. Edie suggested that education develops the cultural and social aspects of the society, which are also important factors for economic growth. He also indicates that the development in technology, in economic performance and in the general welfare of society are dependent on the supply of high quality manpower (1966, p174). With the view that the educational system is part of the wider social system, it was assumed that the changes occurring in the structure and functions of both these systems would benefit the whole social system. Weisbrod suggested by

improving the knowledge and ability of the human resources, education could play an important part in the development of the society (1966, p 13). Harbison supports these ideas in his view that education is considered "an essential factor in the development of societies" (1964, p 13). Moreover, Harbison in 1973 explained that human resources ... constitute the ultimate basis for wealth of nations. Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organisations, and carry forward national development.

Clearly, a country which is unable to develop the skills and knowledge of its people and to utilise them effectively in the national economy will be unable to develop anything else (p 3), and in relation to the development of human skills, this can be achieved by a formal educational system.

Thus, with increased production and greater movement of the economies from a strictly rural basis to industrialisation - which is measured by the degree of urbanisation - a wider distribution of income would occur, benefitting the poor, provided that they increased their participation in the educational system.

It was the above theories which formulated the targets for educational modernisation and insisted that such changes be incorporated into national development plans. Changes took place soon after independence, especially at the primary level. All developing countries have committed themselves, therefore, to the goal of "universal primary education" in the shortest possible time. This quest became politically very sensitive, but often economically costly.

As a result of the expansion of formal schooling, the students as well as the teachers became concerned about gaining the school certificate to enable them to have equal employment opportunities in the urban modern societies, and

as a result, primary education raises the aspirations of rural youth to escape from traditional agriculture into the modern sector. Because education absorbs the greatest share of the government budget it is necessary to make formal education more productive and suited to the needs of the farm or the factory and therefore, as Beeby says, "it is liable to be regarded as a subtle attempt to fob children off with something inferior" (1966, p 30). Todaro, 1977, claimed that after almost three decades of rapidly expanding enrolments and hundreds of billions of dollars of educational expenditure, it seemed that little had been achieved in Asia, Africa and Latin America. He believed this was because "the poverty is chronic" (p 236). But I believe the main reason behind all this is that the formal educational system has been misused politically and economically in all developing countries. They have expanded it rapidly, with a vast increase in student numbers, believing that would accelerate economic growth. For that, the expansion of a formal educational system must be associated with academic as well as technical abilities, including agricultural training to avoid distortion of student aspiration. Also, examination of the fundamental economic basis in relation to the overall development is absolutely necessary.

In supporting this argument, Todaro explained that the linkage between education and development is a two way process. By reflecting the socio-economic structure of the societies in which they function, educational systems tend to perpetuate, reinforce and reproduce these economic and social structures. On the other hand, educational reform, whether introduced from within or outside the system, has the great potential for inducing corresponding social and economic reform in the nation as a whole (1977, p 253).

The political demand for expansion of school places was, at the same time, caused by parents realising quickly that, in an era of scarce skilled manpower, increasing schooling and qualifications for their children could improve their chances of getting secure and well paid jobs, enabling them

to escape from poverty. But World Bank educational economist, John Simmons, argues that "schooling, the poor quickly learn, in most developing countries, is an escape from poverty ... The hope brought to village parents by the construction of the primary school ... Enough schooling to secure a steady job for their children ... a primary school certificate is needed" (1974, p 32).

This demand put a great pressure on developing countries' governments to provide education on a wide scale, but we have to bear in mind what kind of education should be provided for students. Should the aim be to provide them with marketable skills, with an added increment of general education? Educational views are divided over the answer, but the sharp division as Coombs indicated, is about the ways to establish a system that would help build a reliable bridge between students and their natural talents, and between the latter and realistic employment prospects (1968, p 101). Coombs continued his argument further when he pointed out that many students were receiving the wrong sort of education for the world of work they would live in (1970, p 3). Actually the cause of this lies more in the students and their parents' choices which are based on simple assumptions about educational certificates, as an opening through which they may escape from rural life or moreover from poverty, and also in the inefficient mechanism for allocating and utilising educated manpower.

Foster indicated that even under ideal circumstances, it would be difficult for a school system to instill into students a set of attitudes, motivations and career preferences that would promote national economic growth and social development (1966, p 145). This is why, when modern education is introduced into a type of feudal society the consequences can be revolutionary. Modern education faces resistance in some African countries (Beeby, 1969), especially those where agriculture is dominant, because the elite had enjoyed favourable conditions and the modern educational system was regarded as second class.

The argument goes further and D'Aeth, 1978, explained "because most developing countries gained their independence recently, they placed their faith for improving living conditions in expanding their education system, which resulted in a massive number of ill-educated students, most of them aiming to gain school certificates. The reason behind this, which the researchers identify as a real problem, is that most developing countries originally imported their present educational system from distant metropolitan nations whose economic and social conditions and cultural heritage were very different from their own." In D'Aeth's viewpoint, the irrelevance of the educational system in the developing countries related to the way which children of the rural communities learn:

"(The way) Third World children grow up and live has been fiercely criticised; so has the futility of meaningless role learning in school, the rigidity of school curriculum fettered by examinations, the dominance of the humanities in liberal education at the expense of agriculture and technology, the production through the academic selection process of a new privileged elite, the list merely serves to show the gravity of the problem" (p 12, 1978)

Schools should be, and are expected to be, as Anderson argues, adapted to the local society in many ways, this will and must bring about many other kinds of changes in pupils besides preparing them for their occupational skills in the future (1969, p 11), to help their society transform itself into a more developed one. But schools cannot create such a society unless supported by other social policies.

Sociologists argue that the educational programme cannot derive from a set of economic aims for a nation (Anderson, 1967), this lies on the side of employing agencies, but in the case of developing countries, with their emphasis on education in relation to economic ties, they seek to break the vicious circle of poverty, and to obtain rapid development by preparing manpower.

Pressures have been put on the political leaders of the independently developing countries in the first place to provide schooling for all children, and secondly to create a technological society but with the shortage of both school buildings and fully trained teachers, especially in Africa, and in contrast to India and South America, and with this great and expensive demand, to let the leaders rely largely upon models created in the more developed societies like those of the USA, Western Europe and the USSR, has raised criticisms. These were that developing countries could not offer such a system and secondly that it was not related to them traditionally, practically, or economically. One must point out that even the early dreams of providing schools for all were far beyond the reach of almost all developing countries, especially the poor ones. Because, as Coombs explained (1969) with limited budgets, the cost of primary and secondary education would be far beyond the resources of poor countries.

Obviously, a useful education must be adapted to the developing society, in which it operates, but it does not follow that a literary sort of schooling must be avoided. It is not easier, and no more contributive to development, to teach carpentry than arithmetic; neither is it intrinsically the more practical (Anderson, 1967, p 28). Education was seen as having two specific aims: to raise the level of skills needed to support economic growth; and to provide an adequate supply of a whole range of professional expertise needed to run a modern nation. Without them, there would be continued dependence on foreign experts.

Unfortunately, the type of educational systems in developing countries have failed in a sense to meet any of these aims, because of the bookish nature of their schooling. The curriculum is still traditional and highly academic in nature, with an absence of any training courses in most developing countries. So graduate students later joined the ranks of the educated unemployed and unemployable. This means, as Bereday put it, in real economical terms that the schools are implementing the input of another society (1969, p 31). On the other hand, D'Aeth pointed out that "this

type of schooling, developed in colonial times under the influence of dominating advanced countries, infused with the foreign culture, was intended to educate a modern need" (1978, p 12). With the rote learning in schools, the rigidity of school curriculum and examination systems, the dominance of the humanities and liberal education has been at the expense of agriculture and technology. The bookish nature of the curriculum separates young people from the land and does not grow out of their own culture.

Anderson, 1973, Foster, 1965, have both argued that for developing countries, rural training is far more important than the kind of education given in urban schools, which adapted the rigid academic and literary curriculum, if the primary aim is to achieve development. The problem is simply that many developing countries, by adapting this type of curriculum, produced educated personnel for whom the economy had no conceivable use, i.e. India, Burma, Sri Lanka and Egypt, where the educational system produced a mass of educated unemployed. Roland Dore (1975) wrote of this phenomenon as the paradox that, "the worse the educated unemployment situation gets and the more useless educational certificates become" (p 5). In spite of the efforts made to make some changes, curriculum development has been confused with revision of syllabuses and adapting the outline of topics, because curricula innovations are frequently misunderstood, because changes in curricula are applications of experience in curriculum in developed countries. Curriculum development is a matter for the country to decide and it should draw on the environment of the learner for the demonstration and application of its content. (World Bank, 1980, p 33).

The literature on educational reform is diverse in its opinions; different studies and research have been conducted, especially in the USA, Britain and other developed countries. Educational agencies like UNESCO and International World Bank have pursued extensive studies and reported on a wide scale during the last two decades. Discussion of educational

problems have lately concentrated on educational training in relation to the preparation of manpower, especially in secondary schools (Foster, 1974; Harbison, 1969; Anderson and Bowman, 1966), and this means that there is a great demand for the introduction of vocational training courses to the academic secondary schools. In most developed countries, such as the Netherlands and Belgium, vocational training is offered at the lower cycle of secondary education whereas in the USA and USSR it is introduced in the upper cycle of secondary education.

Anderson and Bowman pointed out the serious problem that most developing countries suffer, in lacking various types of high and middle-skilled required manpower. They continue their argument that from the theoretical point of view, which naturally leads to examining the factors that determine the type of education system which provides the country with the semi-skilled manpower (1966, p 7). Foster, on the other hand, notes the continuous desirability of providing technical, vocational and agricultural instruction within the secondary school curriculum. He argues that most of the developing countries have an agriculturally dominant society and he does indicate with special reference to Ghana and neighbouring areas in West Africa in the middle 1960s, that African parents ... did not send their children to school to meet the need for economic growth; they sent them to maximise their children's opportunities within the emergent occupational and prestige structure created by colonial rule (1966, p 106). Combining the two sided education system, vocational as well as academic, can be beneficial from the economic viewpoint, as Foster indicated in relation to this matter. He employed cost-benefit analysis to show that the cost of vocational education is too high in comparison with the return from training to the society (1966, p 142 - 165) and also to be popular and acceptable with parents and students. Harbison thought that since vocational courses in separate buildings lacked popularity the low ratio of secondary level students in vocational schools in developing countries was a blessing in disguise, especially in countries

which had no opportunities for employing vocational school graduates (1973a, p 67). Vocational school graduates may have great difficulty in finding work, for different reasons. Low quality instruction often not relevant to the specific needs of employers or to students' specific future jobs, student admissions not based on demand/supply basis, creating employment problems for the graduates in the labour market. Another criticism is that the period of education and training is longer than that taken if - as Foster suggested - training is given by industry (Foster 1966).

It has to be admitted that a lot of criticism is valid from the economic view point, and vocational education in developing countries has a variety of problems from the education point of view as well. This comes in line with trends developed since the early 1960s in which educational systems and processes have assumed a place in economic science research whose "most obvious area for research is the question of educational costs" (Woodhall, 1972; p 16).

Educational costs are investigated on the basis of cost-benefit analysis which calculates the rate of return on investment in education. Some economic scientists admit that their major concern is economic returns on expenditure on education and that educational issues like timing and duration, content of vocational education curriculum, cultural and technical subjects, teaching techniques and the like are not in their area of concern (Baldwin, 1968, p 64). The economist's concern is considering low-cost alternatives in which the cost of vocational education must be justified on the basis of outcomes. Therefore, there is a demand for setting school-based vocational education in developing countries on economic grounds. This is pointed out clearly by Blaug when he said "what developing countries need is to promote a system of the two curricula in one system, to remove the implication that some education prepares students for the 'world of work' and some does not. All too frequently however (as Blaug claims) those who have taken courses of study generally called 'academic' reap substantial

financial returns from their education, returns which may even be higher than those who had 'vocational' education thus producing the paradoxical conclusion that academic education has greater vocational value than vocational education" (1970, p 247). Furthermore, Clignet and Foster discovered in their research about the Ivory Coast (Ghana) that unemployment was largely confined to graduates of technical and agricultural schools rather than to graduates of academic type schools (quote from Blaug 1970) and as Blaug sees it, "the most popular notion that the curriculum is a major determinant of the vocational aspirations of students will have to be abandoned", and he goes further and points out that "and with it the idea that one can generate economic development by according high priority to agricultural and technical education without a corresponding change in employment opportunities". But, in spite of everything that has been said, during the 1960s and 1970s the developing countries witnessed an expansion in their educational system to meet the manpower needs, and it seems this expansion was intended to expand the education opportunities to create a productive labour force to promote economic growth.

Harbison, in his study in 1969, pointed out that the structural defects in the design of secondary education and the relative over-emphasis on university development, explains in part the underdevelopment of sub-professional and technical personnel in the so-called intermediate and higher-level manpower categories (p 68), he criticised the conditions which put pressure on the universities rather than encouraging the students to go to the training institutions, he argues that "these intermediate institutions simply do not have sufficient drawing power for students in competition with the universities" (p 62). The demand for university education may be very high because of the status, prestige and pay enjoyed by graduates; but in many developing countries this results in the production of graduates who cannot be effectively absorbed into the economy, for example in India it has been estimated that the number of unemployed persons in 1975-76 will about equal the total stock of educated persons in 1960-61 (Working Paper, 1965, Part IV, p ii).

In Harbison's opinion this dilemma which developing countries suffered was related to two reasons; first that the educational system had been inherited from highly-developed countries, i.e. the USA and European countries, and secondly the system looked only to the preparation of high-level manpower, because it is necessary "to build effective government organisation to direct human energy into useful channels" (p 68). Because of the importance of certain types of manpower in the development process, separate forecasts will have to be made. Parnes suggested that since one of the functions of the educational system in society is to provide its workforce with the abilities required for productive activity, it follows that the system must be reasonably well geared to the production requirements of the economy (p 263).

It would not be possible, however, to make detailed forecasts of all types and categories of manpower, especially with regard to those at the lower end of the manpower hierarchy where there is a greater degree of transferability among jobs, but a great degree of differentiation among occupations requiring specific types of education is hardly necessary here and, in fact, to try to achieve this may introduce rigidity into the educational system by encouraging early and narrow specialisation. By merely differentiating among occupations requiring different broad levels of education and between those requiring general and those requiring scientific and technical preparation, would by itself be of great value in guiding the pattern of educational development (p 269). Nevertheless, as has been pointed out, above all, governments must make a decision with respect to education, for in no society is it believed that market forces can be relied upon to govern the allocation of resources to this activity. Despite all the difficulties, the likelihood that these decisions will be enlightened is greater if they are made in the light of careful analysis of manpower needs and the contribution of various types of education to economic development (Parnes, 1962, p 13).

This is true in developing countries and their needs for developing a strong relation between manpower needs for the economy and the educational systems have become increasingly urgent in recent years, as a result of the technological advancements which alter the pattern of occupations and change the content and skill requirements of each occupation, so the future requirement of job specification and needs will certainly differ from those of today. Because of the strong link which is demanded these days between education and economics, the educational system has a programme looking well into the future and directed carefully to fulfilling the manpower requirements of the growing economies of developing countries. Since this function has only recently been stressed in many developing countries, the machinery of indicating the economy's manpower needs and using such information in formulating the educational programmes and goals is not yet fully developed.

Todaro, 1977, added "although several important variables, many of which are non-economic including cultural traditions, social status, education for parents and the size of families, certainly influence the demand of education" (p 247).

Therefore, education is needed to support economic growth and to provide an adequate supply of the whole range of professional expertise needed to run a modern national economy and without which there would be continued dependence on foreign experts. This requires a supporting base of technical education, as well as academic, at an appropriate level, and to divert the student's attention towards training courses to avoid the problem which many developing countries suffered, i.e. India, Egypt and the Philippines, where there is a chronic surplus of graduates far beyond the absorptive capacity of the economy (D'Aeth 1978, p 31; Dore 1976, p 16; World Bank 1980).

Maureen Woodhall indicated that many educators and educational agencies, i.e. Unesco and World Bank, are greatly concerned about this problem and they suggested that to diversify the secondary education system would avoid in the

first place the waste in financial and human resources (1972, p 7).

The philosophy behind this suggestion is that the best way of reconciling economic expediency with the technical requirements of a country, is to provide an army of trained, but not excessively specialised, persons who are greatly needed technicians, clerks, nurses, agricultural assistants, supervisors and foremen who also, in all these capacities, form the basis of a solid citizenry (Curle, 1970). World Bank Report 1980 mentioned that in developing countries like Brazil, Venezuela, Chile, Bolivia and Peru, the diversification went two ways; one in relation to the curriculum changes and the other in preparing middle manpower to co-operate with twentieth century industrial process (p 12). This implies that all developing countries require a basic secondary education plus a measure of specialised training which includes, besides the basic academic courses, vocational training courses. Secondary education usually provides access to middle-echelon posts and enables a limited number of individuals to scale the highest rungs of the educational ladder. The crucial importance of secondary schools lies, therefore, in their dual function as both technical institutions and feeders to higher education (Clignet and Foster, 1960, p 17).

2.3 The Crucial Position of the Secondary Schools

In spite of this confusion, there is little doubt that one of the major centres of present controversy concerns the role of secondary schooling, as it relates to economic change and processes of occupational recruitment in the new state. I have indicated in many places that the concern about secondary schooling, with increased numbers of primary school graduates, generates direct pressure on higher education institutions, in addition to the government's adoption of the policy of uncontrolled growth of the system.

Most developing countries are now facing a demand for secondary school education and this demand is generally for an academic type of education modelled closely upon

that provided by the elite government schools, as well as assisted schools. At the same time, students themselves, with great pressure from their parents, seek education without regard to career prospects. Instead of going for technical or agricultural courses, they pursue traditional academic subjects. In other words, as Blaug indicated, the fault lies partly with the educational system for not imparting technical and vocational education, and partly with educated individuals themselves for preferring white-collar to manual and industrial occupations (Blaug, 1970, p 236). "Therefore, attention should concentrate on finding new techniques of education which can be utilised effectively by large numbers of teachers who themselves have had little more than primary education and which can maximise the strategic services of a very small group of more highly trained personnel" (Harbison, 1961, p 25).

Harbison's statement raises many questions that are concrete and specific enough, but we still wonder are these relevant to what secondary education needs? Does it need qualified teachers to instruct students, or new ways of teaching? But any new techniques, I believe, or any change, should be profitable to the educational demand, and moreover should suit economic needs, and social change, and equip the students with the required professional training. To provide technical courses, the society needs more than the traditional courses which are far too remote, in a sense, from their surroundings and needs.

Theoretically, these suggestions seem quite simple and easy, but good education costs more than bad, and the lack of money is a prime cause of the lack of any new changes, especially in the poor African and Asian countries. But Adam Curle argued that this is a totally false reason if we see how many foreign experts and workers are employed by most of the developing countries (1970, p 82). The main reason for the secondary school's dilemma, as Curle sees it, is "the neglect of technical and vocational secondary education has been the involvement and favour of white-collar jobs" (p 89).

The secondary school curriculum and teaching is entirely for preparation for universities; the school programme is orientated towards the small minority of students who will be successful in gaining access to the higher educational establishment.

The demand for this type of education can be answered by Foster's (1965) statement, indicating that the prospects of either agricultural or vocational education was still very low and always the dream was of getting a job within the modern sector, because of the greater demand for clerical and commercial skills than for technical skills, and as Blaug pointed out "the graduates of the academic schools were always at an advantage compared to the graduates of vocational or vocationally orientated" (1970, p 245). Blaug furthered his argument, "African students, far from being irrational in insisting on bookish education, correctly appraised the actual job opportunities that were available; paradoxically enough, the teaching of the three R's provided a vocational education in the best sense of the word, allowing entry to the most prestigious and better paid occupations in the economy" (Ibid).

The structural defect in the type of secondary education and the relative over-emphasis on university development explains why secondary school graduates who are qualified for higher education are not willing to go anywhere besides university for the high status and pay university graduates enjoy. This is why the development or expansion of post-secondary training facilities for technicians, agricultural assistants, medical technicians, nurses and certified teachers is likely to be frustrated. These institutions, until recently did not have the power to attract students to enrol for a vocational certificate.

Therefore, we can see why the technical institutions changed to universities as happened in Iraq; formerly, technical colleges absorbed the students and trained them for technical purposes, but later, because of the pressure from students wanting to go to university, the government

in the early seventies changed the status of the technical colleges to the University of Technology.

However, one explanation for this is that in most developing countries there has been no real attempt to establish alternative forms of educational institutions, especially at secondary level, to seriously shift student attention from gaining academic certificates. Therefore, what is most needed is to introduce practical courses as well as academic, to divert students into various walks of life and to avoid the waste of human resources. Sri Lanka is a good example. This country suffered from the divorce of their education and the world of vocational training; "the present divorce of education from the world of work has up-rooted an entire generation from the type of production which can be readily developed in the country and has pushed the person who would normally have gone into some productive activity into a fruitless search for white-collar employment, the expansion of which can no longer be supported by the country's productive sectors" (Five Year Plan, Sri Lanka, 1971; p 5).

Developed countries achieved this need years ago, by adopting the idea of providing a vocational training within secondary schools, which helps industrial advancement and requirements. In the Soviet Union, for example, expanding their vocational courses has major justifications in providing the theoretical advances produced. Belkin pointed out in an article, that the trend in the Soviet Union has been towards a growing proportion of vocational training graduates in the labour force.

According to his findings, students with these extra vocational syllabuses in formal education adapted better to technological change and had lower rates of rejection in industry (Belkin cited by Zymelman, 1976, p 109).

The USA also conducted much research within this field to prove that introducing vocational training at secondary school level can achieve a higher level of employment and

and a higher degree of job security. There was also evidence that employers of graduates of these schools are satisfied with their standard of education and training (Eninger cited by Eddy, Max 1977, p 377 - 78).

It is however to be noted in this context that since the Second World War there has been a shift of opinion in this area. The educational component of training has increasingly been recognised. Rapid technological and industrial change requires workers with more flexibility and deeper theoretical knowledge of their occupations (Zymelman, 1976, p 4). Besides, the social and economic complexity of today's societies is more demanding on the creation of the socially flexible worker as a citizen to adopt to new situations.

For the sake of building up the worker and the citizen it is widely recognised that training for skill should be regarded as a continuous process, linked with education. A Unesco recommendation pointed out that "technical and vocational education should be an integral part of an overall system of education and, as such, due consideration should be given to its cultural content. It should be more than training an individual for a given occupation by providing the person concerned with the necessary skills and theoretical knowledge, it should also, in conjunction with general education, provide the development of personality and character and foster the capacity for understanding, judgement, self-expression and adaptation to varying environments" (Unesco Recommendations, 1962, Articles 7 - 9).

In this context, secondary school does have a role to play in the education and training of students for the labour market and for life, when the educational problems have been identified and tackled. Once that is achieved, efficiency in economic terms could be maintained.

The discussion above, meant that a partnership between academic education and vocational training seems a favourable combination for re-organising secondary education in developing

countries. What is important in such an arrangement is that training remains related to the needs and changing conditions of the economic and social changes in the developing countries.

2.4 Comprehensive versus Separate Vocational Schools Argument

Nowadays, there is no consensus regarding vocational training offered by the general secondary stream of education. Two different viewpoints exist, some people argue that the rapid technological development stifles any training efforts (Lessinger, in Leon cited by Law and Greenwood, p 91). Training programmes quickly become obsolete and skills become redundant in a short period of time. Therefore, it is thought that general education rather than skill training at school is of particular importance because it leads to intellectual flexibility and intelligent adaptation. Others think that it is valuable to teach skills which could be beneficial to students as they enter the labour market, with subsequent retraining as needed (Ibid).

Others believe that the most opportune time and place for vocational training is while the students are still in their local community and in the local school environment. Besides, it is believed that it is much more economical for students to learn occupational skills in school programmes than in other ways (Hopkins, 1977, p 163).

Also general education and schooling has been criticised as being too theoretical and far from the needs of the society and economy.

In order to make education more meaningful and more interesting, this led to the introduction of vocational courses in the secondary level schooling to give boys and girls with diverse social and economic backgrounds an opportunity to receive a vocational training in addition to academic education; to make vocational decisions on the basis of a broader experience with the world of work; and to produce trainable young labourers whose capacities might be developed through on-the-job training in industrial plants (Shimberg, 1971, pp 184 - 5).

The vocational training of students in the general stream of education would answer the charges of industrial, economic and social critics of education. However, many criticisms have been raised against this system, for example, it is observed in the USA that the anticipated advantages of comprehensive education have seldom been realised. Scheduling difficulties deprived many students of ready access to vocational programmes, nor have those in vocational programmes found it easy to transfer to the academic programme without substantial loss of credit (Pautiz, 1971, p 211).

Also, because of the lack of college degrees amongst vocational teachers and poor overall image, both students and teachers in vocational programmes are frequently isolated from their counterparts in academic programmes (Shimberg, 1971, p 185). Moreover, low support and unsympathetic behaviour of academic teachers in comprehensive schools has adversely affected the popularity of such programmes. Academic teachers tended to reject any expansion of vocational courses. They believed more basic education was necessary. They also thought vocational students had inferior ability. This last attitude apparently affected the morale of students and the popularity of vocational courses in the comprehensive schools (Pautiz, 1971, p 209). Furthermore, many comprehensives, as Law and Greenwood claim, could not manage to assume their proper economic function in providing the skills required by the industry, and the relationship between education and the world of work has not been properly established (1977, pp 79 - 97).

Those who favoured separate vocational schools argue that such schools enjoy several important advantages over the typical comprehensive secondary school. In addition to skill training, they offer academic and related subjects. They are generally able to offer a general diversity of vocational programmes, to provide more up-to-date equipment and to employ more highly qualified instructors.

Because these are single-purpose institutions whose major function is the generation of technical skills, they are able to maintain close contact with technological change and to place students in suitable jobs upon completion of training (Shimberg, 1971, p 185).

Separate facilities for vocational education at the secondary level parallel to academic secondary education to provide pre-employment education and to prepare young people for direct entry into the labour market have been developed all over the world. These include the specialised schools "fackskola" in Sweden and the "Colleges d'enseignement Techniques" in France. In West Germany, vocational schools train skilled and semi-skilled workers in all sectors of the economy.

From what has been mentioned, it has been shown that there is a choice between either separate vocational schools or comprehensives, but from the social as well as economic viewpoint, providing vocational training in separate buildings is going to be very expensive in terms of their return for their training to the society (Foster 1966, pp 142 - 165). Also, providing vocational training solely for the benefit of the labour market isolates students and does not give the most able students time to acquire higher education in a different field, e.g. medicine. No-one can deny the important role of separate vocational institutions but they have their limited role in educating and training their students for their role in society; their students still lack full educational training. Moreover sensitivity toward vocational schools from the students and their parents always affected the student/teacher ratio, because of the great demand for academic secondary school certificates. These qualified them for white-collar jobs in the government which, because of the modest level of employment prospects in the modernised sector was still desirable (Dore, 1976, p 3). If however, the developing countries provide multi-purpose secondary school education, this can ease the social attitude towards vocational courses. Since the social climate in

secondary education has a positive effect on learning outcomes, the world of work needs to be reproduced in the formal secondary school as closely as possible. Attempts to inter-relate education and work are fundamental to educational policy in socialist countries. Similar attempts have been made, with varying degrees of success, in some other developing countries such as Benin, Tanzania and Zambia (World Bank, 1980, pp 47-48).

In the context of this suggestion, diversified schools have been a popular alternative to either purely academic or vocational schools, in spite of the criticism raised against diversified secondary schools. (Shimberg, 1971; Panitz 1971), that they are a questionable method for training large numbers in specific vocational skills. But if they are used as bases for the training of technicians or as preparation for higher education, especially in technical fields, the cost and difficulties of the diversified secondary schools are more easily justified. Priority should be given to this system which introduces the practical subjects - industrial, agricultural, home economics - at lower levels of secondary schooling to provide good attitudes towards work.

2.5 Iraqi Studies

It has been shown how the discussion of educational development in developing countries has been related to social and economic requirements during both the colonial and independent periods, and how it developed. Also, the issue of the type of secondary education which is required as being relevant in developing countries to provide workers as well as qualified professionals has been discussed. However, in Iraq's case, research into this problem - at any rate - related to education on a general basis has been very limited; in particular with regard to the problem of diversification of secondary education, we can say research is almost non-existent, hence the principal reason for the orientation of the present thesis.

Many studies have been carried out by the Ministry of Education in Iraq who have tried to survey and document education on a general basis, for example, educational levels, intake and process of enrolment at different levels of the educational system and in different regions of the country. Attempts have been made to study secondary school problems, and the alternative models which fit the social and economic demand, but these studies were conducted in isolation from any real context. The first exception is a study conducted by educationalist groups appointed by the Ministry of Education in September 1972 which studied the development of secondary education in Iraq, with its descriptive style, no suggestion for any remedy to the problems which secondary education in Iraq has suffered for a long time.

The second study is that of Al-Wattari, A. and others in June 1979, which was conducted by the Ministry of Education as a progressive step to study students' preferences in choosing either the scientific or literary stream in upper secondary school. The study proved that students' social backgrounds played a strong element in their choice, as well as their families' encouragement without regard to career prospects. The investigators noticed that the students' choice was also affected by the father's education, and their relative job status, also it was noticed that children from smaller families as well as larger ones, with no restraint through their income, tended to achieve higher education.

In the previous studies we noticed that all the work being done has been conducted by either the Ministry of Education or the Ministry of Planning, which is not closely involved; also private studies have never been carried out because the educational system in Iraq was, and still is, highly centralised; even the research work lies in the hands of the Ministry of Education.

The latest study was also conducted by the Ministry of Education under a title "Recent Trends in Secondary and Technical Education in Iraq" in 1982, and presented as an

official report to Unesco Regional Bureau meeting held in Kuwait on 23 - 27 October 1982. This was a descriptive report which tried to present the progressive trends in secondary and technical education.

It has been shown in all these studies, however, that there are problems which need serious attention within secondary education, and the suggestion recommended in only one of them indicates very clearly the need for a re-organising of secondary education to achieve the required outcome from this important educational level.

It is hoped that the present thesis will provide a major and worthwhile contribution to knowledge in this area.

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CHAPTER THREEIraq: The Culture and the Society

- 3.1 Historical Background from the Earlier Times
- 3.2 The Land: Geography and Population
- 3.3 People of Iraq
- 3.4 Family
- 3.5 Age Distribution
- 3.6 Social Changes
- 3.7 Status of Women
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CHAPTER THREE

Iraq: The Culture and the Society

The establishment of the State of Iraq was the outcome of the fall of the Ottoman Empire in World War One, which marked the end of a regime which for four hundred years had loosely governed most of the Arab land.

The State of Iraq, as a separate political entity, therefore, has existed since the end of the First World War; yet the land nurtured some of the earliest of the world's traceable civilisations and settled agricultural production, some 8,000 years ago around the areas of the two rivers, the Tigris and the Euphrates. The civilisations of Ur and Babylon were built on the basis of a flourishing agriculture. Development was not, however, continuous; wave after wave of invaders destroyed the economy and the successive rules did not always rebuild it. The cycle of productive civilisation followed by a destructive invasion has been repeated numerous times in Iraq.

In the years since World War One, a remarkable transformation has taken place in Iraq, and is still continuing. Disastrous floods which ravaged the land for centuries are now checked; new buildings, schools, hospitals, factories etc have been built, and even more are being built; new roads are being constructed; new irrigation canals and drainage systems are being developed; and, most important of all, a new and different way of living is opening up for increasing numbers of Iraqis. Iraq is, in short, undertaking the process known generally today as that of economic development.

3.1 Historical Background

Today a massive social and economic change is taking place in Iraq, inspired by its glorious past, when during the Abbassid Caliphate (754 AD - 1258 AD), the country is said to have supported a population of some twenty million people. During this era, Baghdad became the cultural centre of the

civilized world. The arts, philosophy, science and medicine, as well as commerce and navigation, flourished and prospered. An intricate irrigation system was constructed, and Iraq was the granary of a great empire. The canal system being developed today follows, to an amazing degree, the ruins of its ancient counterpart.

In 1258, following a period of political decline, Iraq was invaded by Mongol hoards who reduced its splendour into dust. The canal system was virtually destroyed; the desert gradually encroached on the farmland; security was absent; the population decreased rapidly and nomadism spread. This era is regarded as the darkest period in Iraq's history. Only in recent years has the country began to recover from the ravages wrought by the Mongol invasions.

In 1534 the Ottoman Turks under Sulaiman the Magnificent, invaded Iraq. With the exception of a brief period (1621 - 38), the country remained an insignificant Ottoman province until World War One. Generally speaking, Ottoman rule was characterised by weakness and corruption. Governors were virtually independent from the central authorities and tribal chieftains ravaged the countryside, warred against each other, and were a constant menace to the cities.

In the nineteenth century some measures of reform were effected. The country was re-organized into three administrative provinces. The bureaucracy and financial arrangements were improved. During the governorship of Midhat Pasha (1869 - 72), an enlightened reformer, land tenure reform laws were made. In addition, a few secular schools were established, and the tribes were brought under much closer discipline.

But with increasing European attention during the nineteenth century directed to the Ottoman Empire, Iraq became the focal point of British interest as the site of a possible alternative route to India, because Britain had taken an active interest in the affairs of the Arabian Gulf area in order to safeguard her lines of communication to the East.

This strategic consideration, and in addition newly acquired oil interest in Iraq, especially when it was first discovered around November 1914, gave the area greater importance in Western eyes.

In the early years of the twentieth century, effective Turkish control of Iraq ended when British forces occupied Baghdad in 1917 (Harris, 1958, p 22; and Al-Khatat, 1978, p 41). Later in 1920, Iraq was declared as a British mandate, whilst Britain however, became convinced that she could better maintain her influence (necessary to fulfil the mandatory obligations) if an Arab monarch were at the head of government. By October 1922, an Anglo-Iraqi treaty was signed and approved by the constituent assembly by March 1924.

By June 1930, a new Anglo-Iraqi treaty was signed which recognised the full independence of Iraq. The year 1932 was the turning point in modern Iraqi history, and that was when the new state was admitted as a fully-fledged member of the League of Nations (Akrawi, 1942, p 14; and Antonious, 1969, p 345). The history of the mandate period was in effect a history of the struggle for independence by the many nationalist cabinets of the period (Khaduri, 1960, p 370). There was a unity of purpose, in all these cabinets, on the principle of guiding the country towards complete independence, but there was not always common agreement on the best way of achieving that purpose. By 1932 independence was achieved, and as a result the status of political parties declined somewhat for lack of major aims. Following the Second World War, in the period 1945 - 54, five political parties appeared with a major pre-occupation with domestic issues.

These parties had general public support, and especially represented the younger generation of their time. However, they were opposed by the older politicians, the elite, and in general by those who wished to maintain the status quo (Khaduri, p 300; Harris, p 84). These older statesmen were generally conservative in outlook, pro-Western in foreign policy, and firm believers in the Monarchical system (Khaduri, p 300). With the advent of the 1948 Arab-Israeli war, political

parties were completely abolished and in 1954, there was no one political party working (op. cit. p 300). Another factor of political instability was that between 1932 and 1958, Iraq had 45 different cabinets. Furthermore, the method of election created serious political problems. However, in spite of some improvement, the 1952 election was said to have been "controlled by the Executive" (Abboushi, 1970, p 200), but even so could not manage to gain the public trust which was lacking. The army was another factor contributing to political instability. They entered politics actively between 1936 and 1941 and as a result the monarchical period experienced two major coups before 1958, both led by the army, the first in 1936, and the second in 1941. In 1958, the army staged a successful revolution which marked the end of an era, and Iraq closed another tumultuous period in its history.

Even the 1958 revolution could not bring stability to the Iraqi people and their country, because the main aim of this revolution was never achieved. In February 1963, the Al Ba'ath Arab Socialist Party (ABSP) came to power, but did not last long, and in November 1963, another coup by the army occurred. Political parties were abandoned and all party activities were organised into the Arab Socialist Union. Continued internal disturbances brought another change in the whole government in 1968, and again the Al-Ba'ath Arab Socialist Party came to power, on 17 July, 1968.

In general, foreign policy in Iraq shows a preference towards non-alignment both within the Arab states and in relation to non-Arab nations.

3.2 The Land: Geography and Population

The frontiers of modern Iraq follow no geographical and no racial criteria. They were shaped by the events of the First World War, and by the political and diplomatic compromises which followed. Today, Iraq's neighbours are, on the North and North-East, Turkey and Syria (Fig 1), on the East, Iran, on the West, Syria and Jordan, and on the South, Saudi Arabia and Kuwait. Geographically, the country forms the largest part of the land bridge between the Mediterranean and the Indian Ocean. It is, indeed, almost at the centre of the old world.

It lies equidistant from West Africa and Eastern China, from Lapland and South Africa, from London and Madras (Longrigg, 1958, p 13; and Khadduri, M., 1951, p 17). The area was known in a general way to Europeans - before the emergence of Iraq as a national state - as Mesopotamia (the country between the two rivers). It is the plane formed from the silt carried by the rivers Tigris and Euphrates that forms the essential body of Iraq today where, in 1980, 70 per cent of its population lived (Ministry of Planning, 1981, p 32).

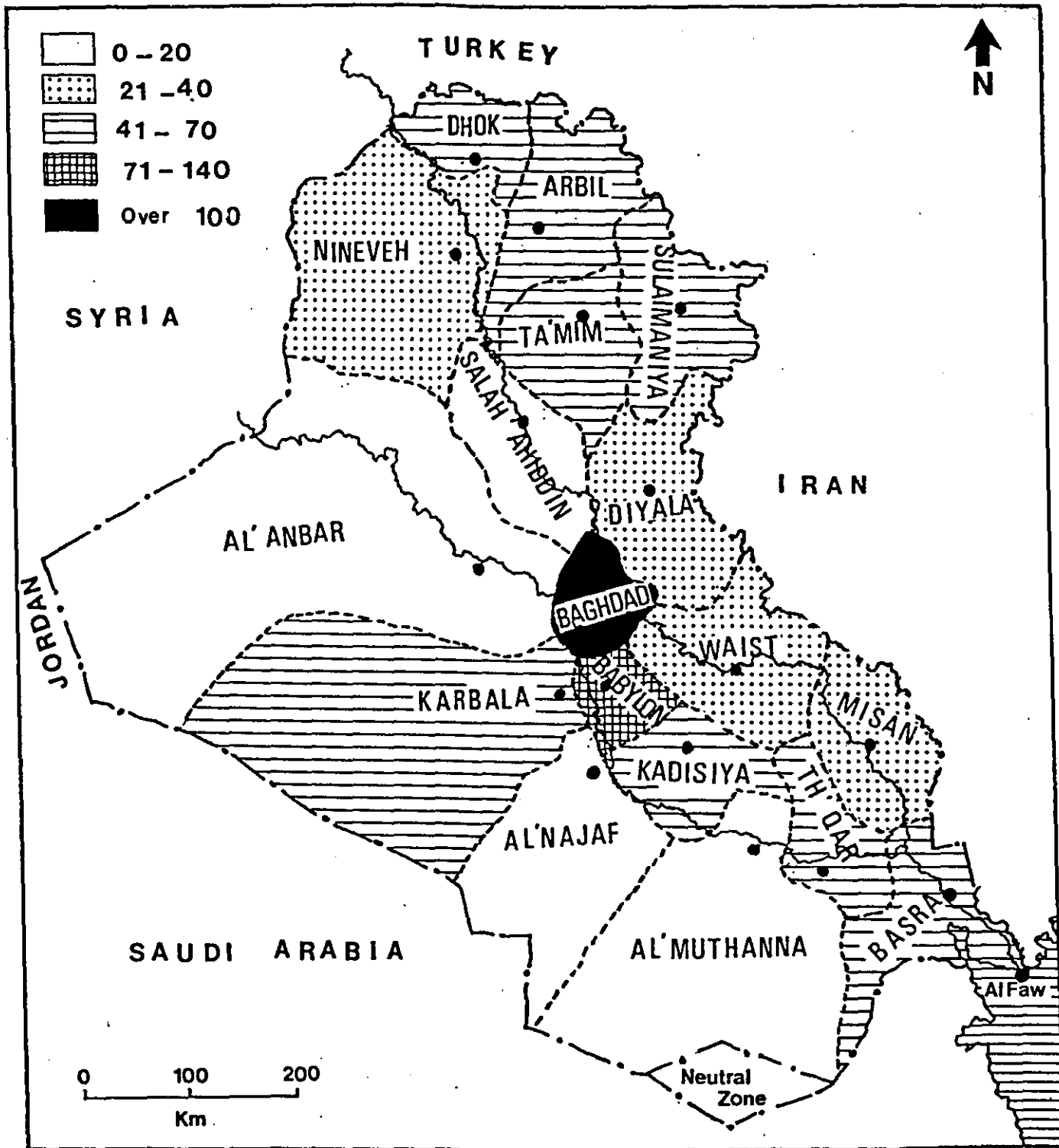
Today, Iraq contains within its borders, in addition to the plains of the two rivers, deserts, upland country and mountainous districts (Table 1). Excluding the area of the deserts, two of which lie to the West and South of the Euphrates, and one between the two rivers in the north, Iraq contains 235,733 square kilometres of land (53 per cent of its total land surface which is 438,446 square kilometres), and about 35 to 40 per cent of this is potentially cultivable either by rainfall or irrigation (Ministry of Planning, 1980, p 32). The rainfall area roughly corresponds to the mountain districts of the North and North East of the country. Broadly, the country can be divided into three main areas: the desert, which supports nomadic life; the rainfall zone, where agriculture and pastoralism are practised in the valleys and wherever the mountains are not too steep or too bare to permit such activities; and the alluvial plain, where water is available for irrigation.

Iraq's climate, except in the mountain areas, is extreme. The mean January temperature in Baghdad ranges from a maximum of 60° Fahrenheit to a minimum of 40°F; the July mean temperature ranges from a maximum of 110°F to a minimum of 77°F. At Basra, which is in the South of Iraq, and its only port on the Arab Gulf, the January mean temperature ranges from a maximum of 65°-70°F to a minimum of 50°F; the July mean temperature range is from a maximum of 110°F to a minimum of 90°F. The temperatures in Basra, coupled with a high humidity, make the effects of the heat less bearable. The summer months, generally, in the rest of the country, are hot, with dust storms, especially in July and August.

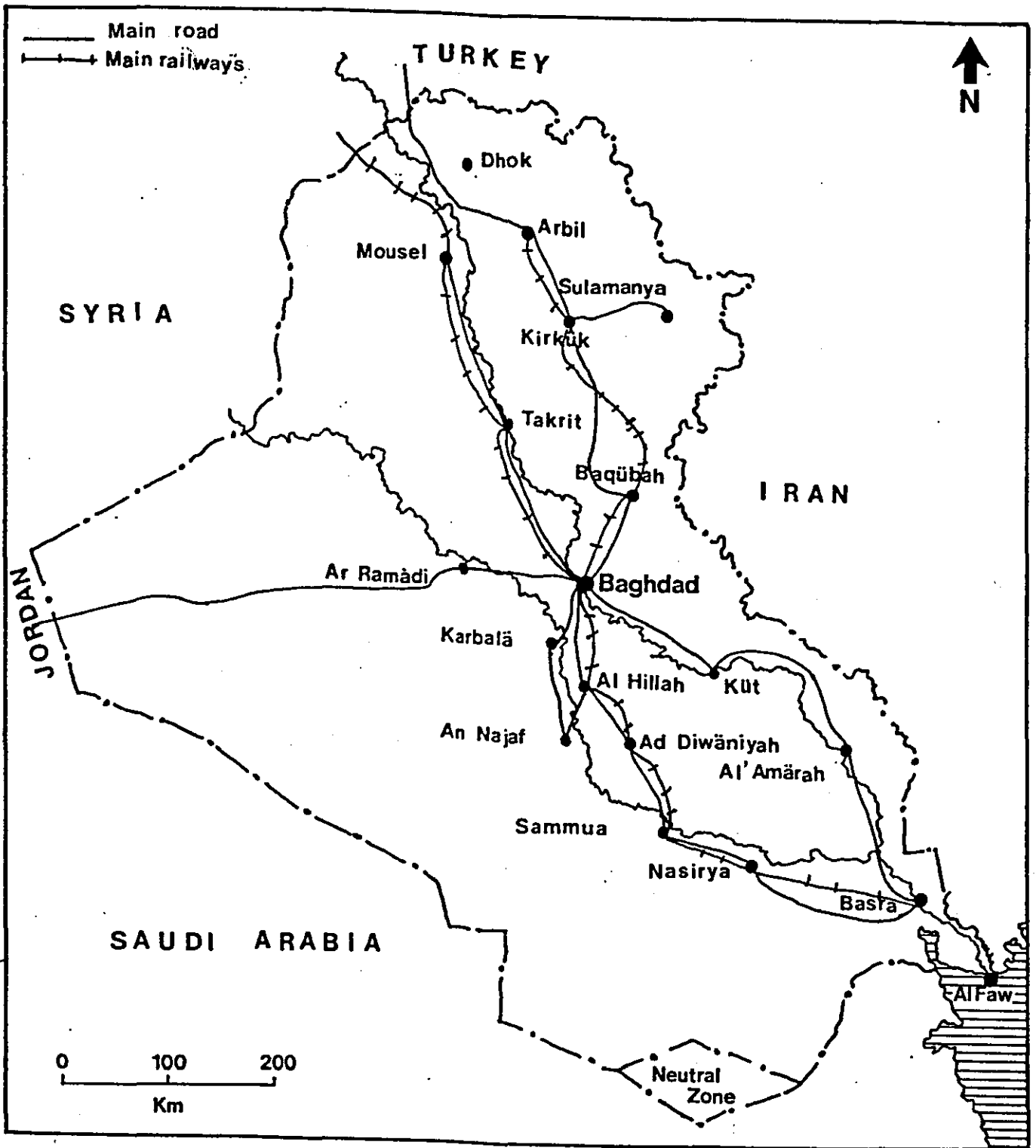
As far as the population is concerned, Qubain stated that the total population in 1947 was 4,816,185 persons, divided into 2,257,345 males, or 46.6 per cent, and 2,558,840 females, or 53.4 per cent. There is reason to believe that there was a considerable under-reporting of both males and females - when the first census in the history of Iraq was taken in 1947 - in the case of males to escape military conscription, in the case of females because of Islamic tradition (1958, p 7). By 1955, the population was recorded as 5,113,000 (Annual Report, Ministry of Planning, 1981, p 32). In 1971, the increase of the population was approximately 3.5 per cent of population growth per year (UN Development Plan, 1977-1978, p 27), but in 1980-81 the population was estimated at 13,214,081 (Ministry of Planning, 1980, p 32) (see Table 2). Baghdad, the capital and the largest city in Iraq, has a population of about 4,500,000 persons in 1980 (Ibid, p 33).

As with any other developing country, the urban/rural population imbalance and the trend for population growth to be concentrated in the major urban areas is a major social problem which has severe implications for the development of the country's educational system.

Map 1 - Concentration/dispersal of population in the Iraq Provinces (Person/km²)



Source - Annual Statistical Report 1983/84, Ministry of Planning, Baghdad



Map 2 - Illustrates the main communication (road, railway) between the capital (Baghdad) and other provinces

Table 2

Area of the Valleys, Mountains and the Deserts in Iraq

Description	Sq/km	Per cent
Area of valleys including the marshes and lakes	132,500	30.2
Area covered by: hills	42,500	9.7
mountains	92,000	21.0
desert	167,000	38.1
Neutral		
Neutral Zone	3,522	0.8
Regional Water	924	0.2
IRAQ AREA	438,446	100

Source: Statistical Book 1975
Ministry of Planning
Baghdad, Iraq

Table 3

Population of Iraq 1927 to 1983

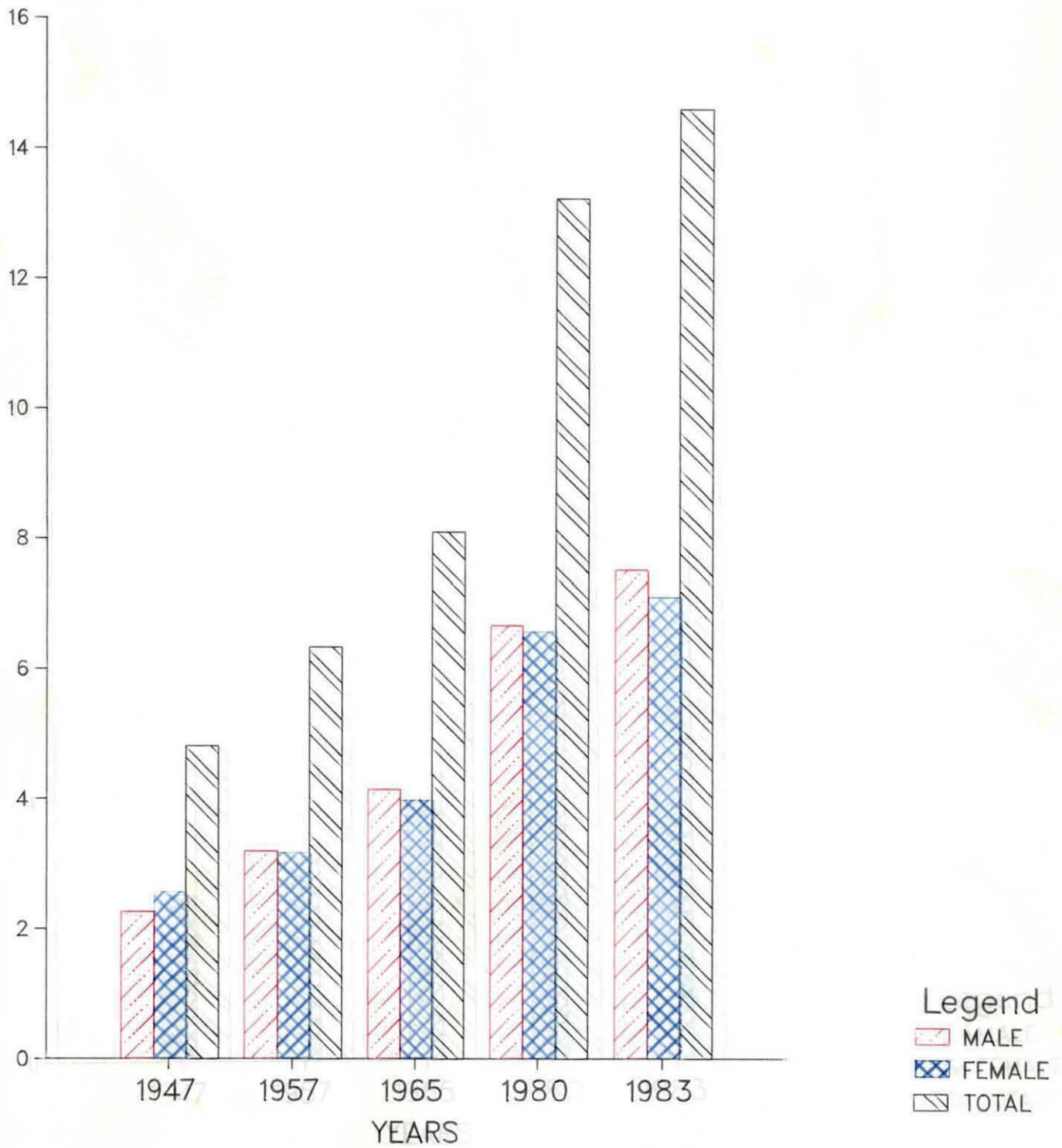
YEAR	MALE	FEMALE	TOTAL
1927 ⁽¹⁾	1,612,077	1,455,977	3,068,054 ⁺
1934 ⁽¹⁾	1,688,239	1,692,294	3,380,533 ⁺
1947 ⁽²⁾	2,257,345	2,558,840	4,816,185
1957 ⁽³⁾	3,185,117	3,154,843	6,339,960
1965 ⁽³⁾	4,133,162	3,964,068	8,097,230
1970 ⁽⁴⁾	4,754,234	4,685,864	9,440,098
1975 ⁽⁴⁾	5,603,972	5,521,262	11,135,234
1980	6,657,329	6,556,752	13,214,081
1983	7,504,000	7,082,000	14,586,000

+ Estimates

- (1) Figures of 1927 and 1934 are based on general registration of population.
- (2) Census of 1947 excluding Iraqis abroad.
- (3) Census of 1957 and 1965 including Iraqis abroad.
- (4) Figures for the years 1970 and 1975 are estimates not including Iraqis abroad.

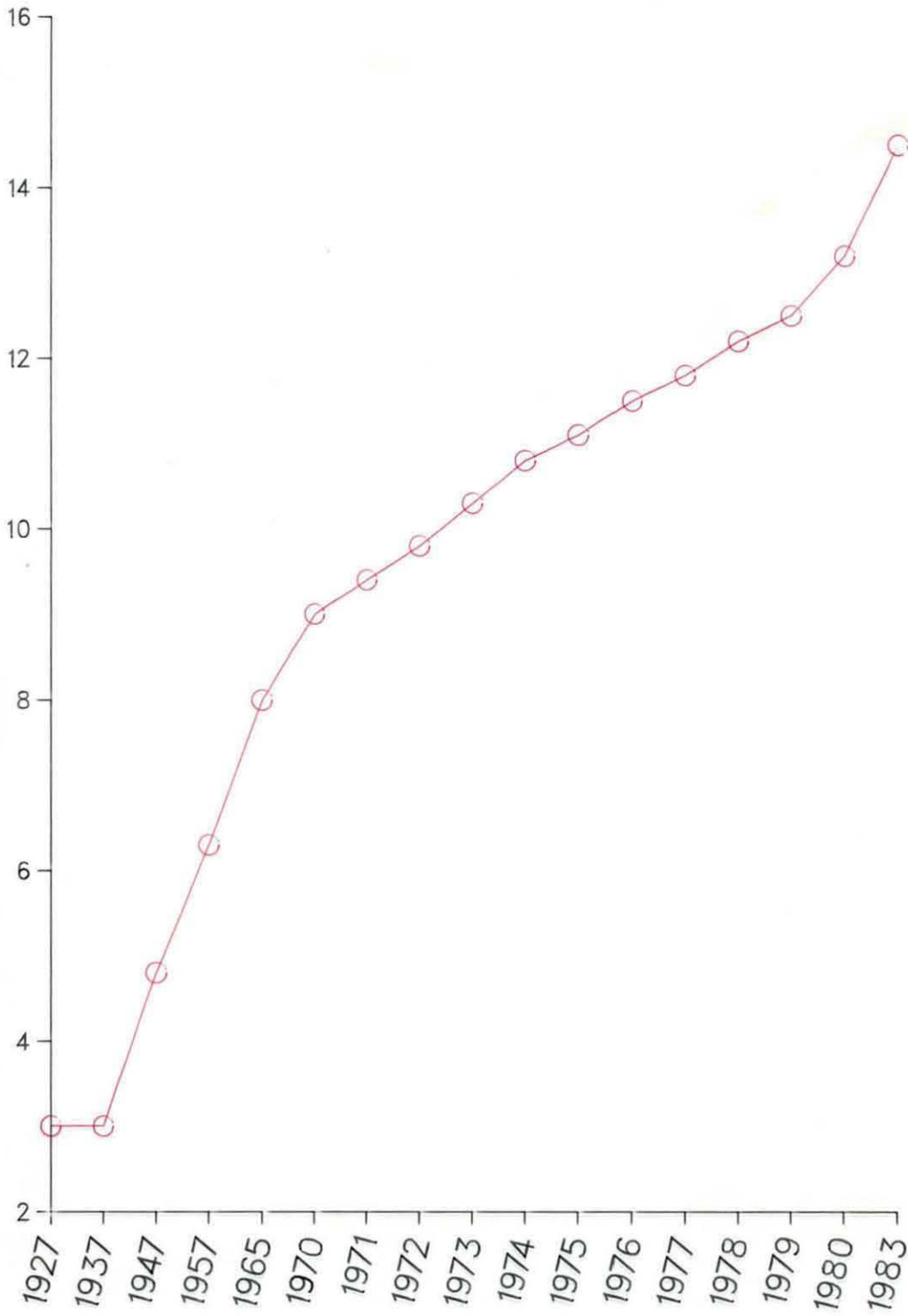
Source: Republic of Iraq, Ministry of Planning:
General Statistical Organisation
Statistic Pocket Book, 1983

Chart I
Population of Iraq 1947–1983
in Millions

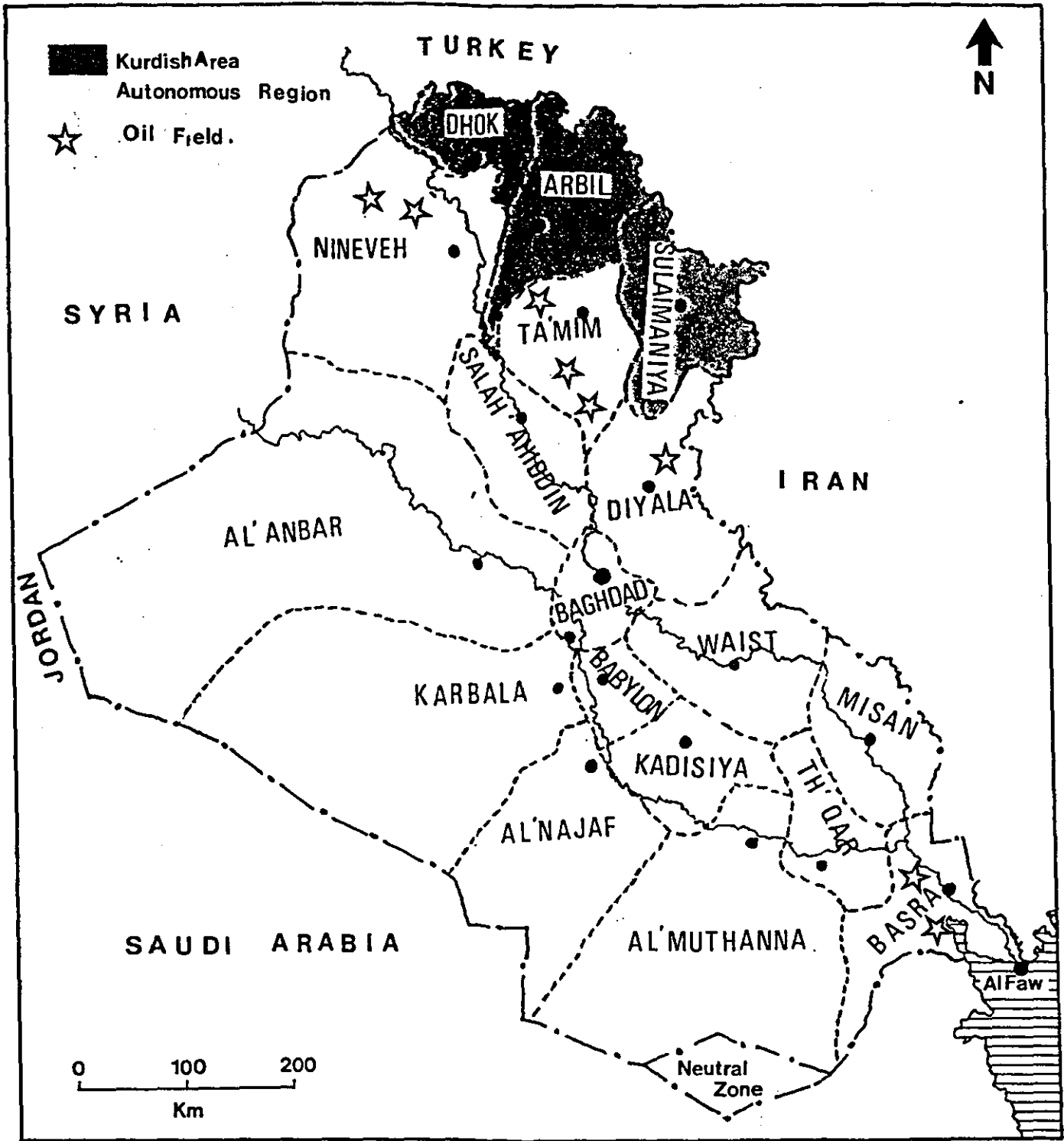


Source: Statistical Book, Ministry of Planning
Central Bureau of Statistics, 1979, p 127

Chart 2
Graph showing Population Increase



Source: Statistical Book, Ministry of Planning
Central Bureau of Statistics, 1979, p 129



Map 3 - Administrative map of Iraq showing the
a) autonomous regions where the Kurds concentrate
b) the oil fields over all the country

3.3 People of Iraq: Ethnic and Religious Characteristics

Iraq is not a nation in the Western sense of the term. It is rather a conglomeration of ethnic, religious, linguistic and ecological groups. Primary loyalties in many cases still belong to immediate social units rather than to the nation state.

Strong forces are at work, however, gradually welding the various groups into a whole and effecting a transference of primary loyalty to the state. In the first place, the culture, traditions and socio-economic institutions of the country have an Arab-Muslim base. This, in itself, is a strong unifying force which has proved its effectiveness in times of external danger.

The population of Iraq is predominantly Arab with an important Kurdish minority and they speak several Kurdish dialects, although they are gradually adopting Arabic language. They are concentrated in the mountain border regions of the North and North East.

Arabs make up about 75 per cent of the total; Kurds about 15 to 17 per cent and other minorities about 8 per cent (e.g. Turkomans, Yezidis, Mandaeans, Christians and Jews). Iraqi people are divided, however, not only by ethnic groupings but also by religion, and by cultural, occupational and educational differences. Religion unified the Arab and Arabic speaking majority. A very small proportion, less than 3 per cent, are Christians of all denominations. Half lived in Mousel - the traditional Christian centre in Iraq - and they then moved to Baghdad and some other big cities in Iraq. The other half are scattered throughout the country, but particularly in the urban centres such as Basra and Kirkuk.

Most Arabs are Moslem but are split by sectarian differences, they divide into two main sects: Shi'a and Sunni. Traditionally the Sunni Arabs have been the ruling group and they have continued in this century to form the majority of the economic, political, social and intellectual elite. The Shia have

traditionally played the role of a minority group in the country. This is because, despised as heretics, they have suffered almost continuous persecution at the hands of the rulers from the Abbassid Caliphate (est 750 AD) to the end of the Ottoman Empire after World War I. This picture is no more applicable.

Other minorities are the Armenians, the Assyrians, Sabeans and Lurs and they form one to two per cent of the Iraqi population. The Armenians entered the country because of Turkish violence against them in the years before, during and after World War I; they lived in harmony with the national majority.

Turkomans are a Turkish-speaking group and have identified themselves with other Moslems. The Sabeans or Mandaeans and the Yazidis are minority groups now, the remnants of ancient religions. The Mandaeans and the Yazidis are minority groups now, the remnants of ancient religions. The Mandaeans are sometimes called the followers of St John the Baptist and pacifism is the main tenet of their religious faith. They are noted for their honesty, gentleness and industry. The Yezidi, another minority, are one of the two most interesting minorities in Iraq, the other being the Mandaean community. Mixed marriages will probably result in the extinction of the Yezidis before long.

The religious beliefs of the Yezidis are held in strict secrecy. They have erroneously been called devil worshippers. Basically, their religion is dualistic and recognises two forces in the universe; good and evil. These two are in perpetual struggle, but Shaitan (Satan) is most powerful on earth and therefore must be appeased. To escape his attention, the Yezidis avoid the use of words beginning with the sound 'sh'. During the Ottoman regime they were regarded as a heretical Muslim sect, and they were deprived of all the attendant legal benefits. They were subjected instead to constant persecution and periodic raids from their Turkish rulers and Kurdish neighbours.

The Kurds are the second in numbers after the Arabs, their total according to the 1977 census was 1,482,588*, they speak several Kurdish dialects although they are gradually adopting the Arabic language.

The Kurds are concentrated in the mountain border regions of the North and North East. The Sulaimaniya province is almost exclusively Kurdish and the provinces of Mousl, Arbil, Kirkuk and Diħok contain large numbers of them (Map 3).

3.4. Family

The traditional family in Iraq, as elsewhere in the Middle East, in addition to providing its members with support and social orientation in childhood, remains throughout their lives a primary agency of economic co-operation, social control and mutual protection. The first loyalty of an individual is to his family, on which his wealth, welfare and reputation are to a considerable degree dependent, and the mutually protective attitude of relatives is taken as a matter of course and kinsmen are expected to render one another special favours and services.

The impact of Western influence and technological and social change is modifying family patterns as well as other aspects of Iraqi life, especially in the cities. New forms of economic activity are breaking down the old self-sufficiency of the family and are lessening its cohesiveness.

Increased educational opportunities are broadening the once highly circumscribed role of women to include many activities outside the home, and new political loyalties are beginning to compete with the once almost exclusive ties of kin and local groups. On the other hand, in the remoter rural areas of Iraq, among Arabs and Kurds, the family essentially has preserved its traditional character.

3.5 Age Distribution

Iraq is a very young nation, 33.6 per cent of the total population was, in 1980, between the ages of one and nine, and

*Central Statistical Organisation 1980

10.1 per cent fifty years and over. In other words, the economically productive population ranging between the ages of ten and 49 constituted in 1983 66.3 per cent of the total population (see Table 3). This is a picture fairly representative of developing countries.

Estimates of Population by 10-Year Age Groups and Sex (Rural and Urban) 1983

Age Groups	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-10	1,553,903	1,466,769	3,022,672	866,341	1,684,813	2,551,154	2,422,244	3,151,582	5,573,826
10-20	1,299,005	1,194,318	2,493,323	582,059	554,492	1,136,551	1,881,064	1,748,810	3,629,874
20-30	949,206	840,041	1,789,247	269,009	295,827	564,836	1,218,215	1,135,868	2,354,083
30-40	592,447	532,965	1,125,355	178,401	182,419	360,820	770,848	715,324	1,486,172
40-50	365,140	328,979	694,119	129,603	131,731	261,334	494,743	460,710	955,453
50-60	232,469	221,581	454,650	109,898	114,699	224,597	342,367	336,280	678,647
60-70	127,811	128,775	361,244	79,918	84,575	164,493	207,729	213,350	421,079
70-80	75,876	82,551	158,421	46,195	49,726	95,921	122,065	132,277	254,342
80 & over	25,185	32,829	58,024	19,634	21,071	40,705	44,819	53,960	98,719
Total	5,223,036	4,828,758	10,051,794	2,281,058	2,252,982	4,534,043	7,504,094	7,081,743	14,585,837

Source: Annual Abstract of Statistics 1983, p 50, Republic of Iraq - Ministry of Planning

Table 4

3.6 Social Changes

Since the changing of the political system from monarchy to republic, the whole socio-economic stratum of Iraqi society has been changed. The introduction of Western features into Iraqi culture has already resulted in the intrusion of Western values and modes into the texture of Iraqi cultural values. The establishment of factories in the central cities necessitated the acceptance of Western standards in punctuality, routine work, separation of the young and the consequent decline in parental authority, the employment of women away from their homes, the adoption of Western clothes and food habits.

Many of these practices are regarded by the conservatives as undesirable and in fact inferior to their accepted traditional/muslim equivalents. The inevitability of these processes has been recognised by the "ABSP" in its Political Report of the 9th Regional Conference in 1982: "The next stage should witness, as soon as possible, the radical elimination of the reactionary values and conservative trends ..." (p 68). The question put now is therefore no longer "Is the acceptance of Westernization compatible with our traditional values?" but rather "How much of Western cultures can we accept without losing our cultural identity?" followed by "How can we reconcile these features of Western cultures with those features of traditional Arab culture?", the abandonment of which amounts to "cultural suicide" (Saddam Hussein, 1979). New trends started to show in the traditional Iraqi society. With Western influences and new economic opportunities came changes in the role of the extended family. Attractive employment became an alternative to family help which gave a great feeling of independence.

Perhaps no question has exercised a greater influence on the past and present life of the people of Iraq than the question of the status of women.

3.7 Status of Women

Women used to be segregated, until the late 1930s, and were allowed to mix only with members of their family.

This strictness shows less in the rural areas and among the tribes, where women work in the fields with their men-folk and usually appear without veils. Among women in urban areas however, separation from men is the rule; women are not allowed to receive men visitors, nor can they share the social life of the men.

Western influence, and wider economic opportunities, gave a chance to women to achieve some degree of equality. The main fact behind women's progress after 1958, besides the economic opportunities, was that the makers of the Revolution found it impossible to have a liberated society with half of that society enslaved, or to achieve any development with half the population idle. They believed education alone was not enough to realise women's liberation in a revolutionary way. Furthermore, the Eighth Regional Conference of ABSP announced that "the backwardness of Arab women in economic, social and cultural fields of the modern Arab renaissance, with their status, there can never be any real achievement of unity, liberty and socialism." (p 79).

Two different channels were followed in order to reach the final aim of changing the status of women in Iraq. The first was the indirect way of raising the general standard of the whole of society. The mechanization of the economy, the extension of social, educational and health services, the sharp increase of the gross national income following the nationalization of oil, all contributed to the creation of better living conditions and more opportunities for progress for both men and wome.

The other channel was the absence of women from the production process, the educational backwardness of women, the unfair treatment of women in some legislation, and the social prejudices against women. Hence, the emancipation of women had to be achieved through their education, and their full participation in the production process, the improvement of their legal position, and the elimination of social prejudice.

Statistics show that in 1967 girls made up 28 per cent of the total number of primary school students. In 1976 the number had risen to 36 per cent, and in 1983 the percentage rose to 48. In secondary schools the number of girl students rose from 24 per cent in 1967 to 30 per cent in 1976 to 39 per cent in 1983. Also the number of girls at the universities rose from 24 per cent in 1967 to 34 per cent in 1976 to 42 per cent in 1983. In fact between the years of 1967 and 1983 the proportion of girl students had increased by 310 per cent at primary levels, 290 per cent at secondary level and 380 per cent at university level.

Besides their equal opportunities in education, Iraqi women enjoy equality in employment, equal pay and equal chances of promotion in all fields of work without any exceptions. The proportion of working women in the total work force rose from 15 per cent in 1977 to 29 per cent in 1983 (General Federation of Iraqi Women Report, 1983, Oct). This figure does not include the agricultural sector as figures regarding the participation of women are not available owing to the fact that work in that sector is carried out on a family basis.

Moreover, many laws have been passed in favour of women, in 1970 agrarian reform gave women the right to own land on an equal footing with men. In 1975, the State gave a married woman the same tax exemption as a married man. Also laws to take care of the working mother by giving her one month's paid maternity leave before the birth, and six months' paid leave after the birth have been introduced.

The Amended Personal Status Law of 1978 has introduced a radical change in the legal position of women within the family circle. According to the provisions of this law, coercive divorce on behalf of men is abolished. The right to divorce is granted to both men and women in cases such as persistent dispute, adultery, incurable disease, or long absence of the partner.

Child custody under the new law has been given to the mother until the child is ten, after which a judge has the

right to prolong the period to fifteen, when the child's own choice will decide with which parent to stay permanently. And lastly, women have the right to vote in all democratic institutions in the country.

3.8 Oil Policy

Government policy, since the revolution of 17 July 1968 has been to use its oil resources in the best interests of the country. All foreign companies have been nationalised, and the country's resources are directly exploited by national development.

Refining capacity has been increased, natural gas is being commercialized and a petro-chemical industry created. A distribution network of pipelines has been built and a tanker fleet acquired for crude and refined products.

When it was decided to nationalize the Iraqi Petroleum Company in June 1972, the intention was to regain national sovereignty and to have real control over the oil resources. This decision had far reaching consequences in the Iraqi, Arab and international economies. The final step, on 8 December, 1975, was the nationalisation of the remaining foreign-owned shares in the Basra Petroleum Company, thus allowing Iraq to use the whole of its oil revenue for its ambitious development projects.

Iraq is considered to have one of the richest oil fields in the world, with immense reserves. Direct exploitation of these resources began with the bringing on stream of the Rumeila field in April 1972. By July 1975 production was running at the rate of 42 million tons per annum. The Rumeila field, in the north, is with its reserves, one of the richest in the world.

A major proportion of the plans for the development of oil resources have been completed and the others are well under way. Examples are:

1. Al-Baker Port; a deep water harbour on the Arabian Gulf with a maximum throughput of 80 million tons per annum.
2. The strategic pipeline system which links the northern and southern oilfields and provides great flexibility and room for manoeuvre in pumping policy. Capacity towards the Arabian Gulf and the South is 50 million tons per annum.

The nationalisation of the remaining foreign interests in the Basra Petroleum Company in December 1975 put the entire oil industry directly into government hands. As a result of the nationalisation, a large investment from the growing oil revenue was put into the agricultural and industrial sectors to reshape the structure of the economy. In the middle of the 1970s the government rapidly pushed public investment in new industrial projects, especially factories and capital intensive industries such as oil refining and petrochemicals. The contracts for the construction of the factories were made with foreign firms for electronics (radios, calculators, televisions) and they were opened in 1976. Iron and steel projects and a glass factory were also put in hand. Altogether these giant steps in Iraqi industry were taken after the sharp rise in oil revenue, and ID391 million was allocated for the manufacturing sector.

Although a generous allocation went to agricultural policy (as oil revenues put greater resources into the hands of the government) a substantial amount went for the purpose of water diversion for irrigation purposes. Iraq has been engaged in building dams, barrages, regulators, weirs, canals and reservoirs, ranging from networks of small irrigation systems to the great new dams of Dokan and Derbendi Khan and their associated reservoirs, and the great storage area of the Wadi Tharthar.

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CHAPTER FOURDevelopment of Iraqi Economy and Its Impact on
Education 1958-1984

- 4.1 Introduction
- 4.2 The Development of the Iraqi Economy 1958-1968
- 4.3 Efforts to Improve the Economy
- 4.4 The Iraqi Economy 1968-1984
- 4.5 Development of the Oil Sector and its Impact on
the National Economy
- 4.6 Development of the Economy
- 4.7 Correlation between Economic Growth and Educational
Development

CHAPTER FOUR

Development of Iraqi Economy and its Impact on Education

4.1 Introduction

During the past two decades the Iraqi government has enacted various economic programmes and policies in an attempt to develop the economy as a whole. Development, however, was concentrated almost exclusively within the sectors of industry, agriculture, transportation and communication. Education and other social service areas were not considered integral components of the development plans. Revenues were independently allocated to education, and had no direct connection with revenues appropriated for development plans. Furthermore, the amount of money which the government allocated to education was not determined by comprehensive studies of the educational needs of the different sectors of the economy, but the 14 July revolution in 1958 marked the beginning of a period of fundamental social and economic changes.

The republican government has adopted the state socialism approach to economic development. Therefore, two major trends have emerged: i) strengthening of the public sector in all economic and other activities in order to make the necessary economic and social structural changes (see Table 4); and ii) within this context, the policy of diversification of the economy has emerged as a major objective and preoccupation of all post-1958 governments.

The Iraqi economy has been described (Hashim, et al, p 98) as a one-sided economy which, in the context of Iraq, means sole dependence on crude oil exports as the major source of foreign exchange and income, and as such, the financier of development programmes and government budgets. This chapter will examine the development of the Iraqi economy in the period 1958 until the present time in order to appreciate the economic background in which education has been functioning and

to evaluate the economic programmes in terms of their effectiveness in solving the demanding needs for manpower at the skilled worker level in Iraq.

4.2 The Development of the Iraqi Economy 1958-1968

Before giving a clear view of the landmarks of the Iraqi economy during the period 1958 to 1968, it is necessary to explain the elements of this period by evaluating the nature of the pre-1958 Iraqi economy.

The Iraqi economy was then characterised by being very old-fashioned, in as much as the participation of the agricultural, industrial and transport sectors in the formation of the Gross National Product (GNP) was weak, the oil extraction sector remained completely isolated from the participation in the branches of Iraqi economy. A report prepared by United Nations experts in 1949 clarified the relationship between the domestic economy of the oil-producing countries and the oil industry as such:

"The articles of the oil companies' concessions grant them the freedom to work in complete isolation from the economies of the Middle Eastern countries. Their production is governed by international and not domestic conditions. Moreover, the companies themselves supply and own the means of transportation, whether oil pipelines or oil tankers, which transport Middle East oil to the markets in Western Europe and the rest of the world. The oil revenue in foreign countries is received and kept by the oil companies.

"Consequently, the effect of oil operations on the Middle Eastern oil-producing countries is basically an indirect one, and the profits derived from such are limited." (Hassan, M S, 1972, pp29-30)

The agricultural sector in Iraq was characterised by the control of feudalism over most of the fertile agricultural

land, i.e. very small numbers of extended families, perhaps about four or five, owning more than 68 per cent of the total agricultural ownership.

Despite the historical fame of Iraq as the "Black Country" (due to the vast areas of land tilled with various crops, that blackened the plains), the land yield was continuously diminishing because of the primitive methods used in agriculture, in addition to the great migration from the country to the cities in search of work and food on the one hand, and to escape the fetters of feudalism on the other. Therefore the agricultural sector remained primitive and backward; it progressively deteriorated and had an increasing number of problems to face (Al-thawara Publication, No 721, 1971, p 3). No tangible progress was taking place in the industrial sector. If we single out the oil extraction industry, which was owned by multi-national oil companies, and which developed outside the national economy, in as much as that it did not affect the government revenue, the modern national economy appeared only in the 1930s, it slowly developed within a single field, i.e. the consumptive industries which depend on agricultural and animal products for raw materials such as the woolen textile industry, cigarettes, leather articles and cotton ginning. Despite the monarchical regime's promises to implement some industrial projects within the development programmes, as Table 1 shows, it only spent ID 2.58 million on industrial projects originally allocated for the first amended development programme (Ibid, p 17). This illustrates the intentional negligence of this vital sector in order to keep the country an importer of various goods (see Table 5).

The oil sector was developing apart from the other branches of national economy because of the monopolist domination which imposed the policy of a single product on Iraq, but the oil production increased after the 1950 agreement to share the production 50-50 with the foreign companies (the so-called "50-50" agreement). Because of the increase in oil production

Table 5The Four Year Plan of 1951-54

Name of Department	Iraqi Dinars	Per centage of National Budget
Administration, studies and organisational expenses	3,180,000	2.05
Irrigation projects	53,374,000	34.35
Main roads and bridges	28,766,000	19.23
Buildings	19,986,000	11.60
Reclamation of land and other schemes	22,018,000	17.98
Industry	2,680,000	2.00
Health	5,750,000	4.70
Transport and communication	9,920,000	8.09
Total	145,574,000	100.00

Source: Fahim I Qubain, The Reconstruction of Iraq 1950-1957, New York, Frederick A Prager, Publisher, 1958, p 41

1:ID = \$2.79

1:ID = £1.27 (Central Bank of Iraq Report, 1968)

which resulted in the increase of oil revenue, the government established in 1950 the Development Board, as a result of the advice which had been suggested by the International Bank for Reconstruction and Development in 1950. Qubain pointed out "these funds (oil revenues), almost all in foreign exchange, made it possible for the state to initiate programmes of development without the necessity of going through an austerity period or one of heavy taxation, either of which would probably have created considerable political unrest" (1958, p 34).

In 1950, the government allocated the totality of oil profits to the Development Board; when the benefits increased, the Board was allocated 70 per cent of the benefits. In 1953, further to the recommendations of the International Bank for Development and Construction, the Ministry of Development was created. The Development Board drew up a 5-year plan for 1951-56, but these plans were replaced by another one in 1955 for the period 1955-59. These plans concentrated on sectors other than the industrial one, proceeding from the historical conception that Iraq was an agricultural country, and that it would not serve its interests to turn it into an agro-industrial country. This appears obviously in the percentage allocated to the industrial sector and spent by them (see Table⁶). Consequently, the image of the landmarks of the Iraqi economy during the monarchical regime comes into perspective. Thus the 14 July revolution in 1958 received a heavy legacy in the economic, social and cultural fields.

The republican government has adopted the state socialism approach to economic development. Two major trends have therefore emerged: i) strengthening of public sectors in all economic and other activities in order to make the necessary economic and social structural changes; and ii) within this context, the policy of diversification of the economy has emerged as a major objective and preoccupation of all post-1958 governments.

Table 6The Five Year Plan of 1955-1959

Projects	Iraqi Dinar at current price	Per cent
<u>Main Projects</u>		
Administration expenses	5,450,000	1.79
Irrigation, drainage and flood control	107,935,000	35.47
Roads and bridges	53,700,000	17.65
Airfields	3,000,000	1.64
Railways	15,500,000	5.09
Main buildings	28,550,000	9.38
Industry, mining and electrification	43,571,000	14.32
Development of animals, plants and underground water resources	6,475,000	2.13
Total Main Projects	266,181,000	87.47
<u>Small Projects</u>		
Buildings and institutes	32,250,000	10.60
Miscellaneous projects	5,875,000	1.93
Total Small Projects	38,125,000	12.53
Grand Total	304,306,000	100.00

Source: Fahim K. Qubain, "The Reconstruction of Iraq 1950-1957"
New York, Frederick A. Praeger, Publisher, 1958, p 44

1:ID = \$2.79 (The total, 304,306,000 ID = \$852,059.00
1:ID = £1.27

The Iraqi economy during 1958-68 period was marked with the following:

- 1) Complete domination of the multi-national oil companies over the oil resources in terms of extraction, production, marketing and transportation.
- 2) The spread of consumptive tendencies which aimed at flooding the Iraqi market with foreign goods and items which led to hampering the growth of a national industry capable of competition.
- 3) The comprehensive development (economic, social and cultural) was neglected, and no efforts were made to change the basic economic structure.
- 4) Serious shortcomings in the foreign balance of trade, which suffered an important permanent deficit.

Thus the Iraqi economy still suffered from two main traits, i.e. underdevelopment and tutelage. This is clearly evident when we examine the low level of the national income, the tempo of its growth, the unbalanced structure, and the fact that the basic oil resources were controlled by the multi-national companies. This led to a decline in per-capita income (Habib K. 1976, p 29).

From Table 7 we can see that the national income in Iraq during the period 1958-66 has increased at the rate of 83 per cent, an annual growth rate of 9.25 per cent, and the portion of the national income mainly exported by the multi-national oil companies has increased at a rate of 76.6 per cent for the same period, an annual growth average of 8.5 per cent. This fact deprived Iraq of revenue that could have greatly contributed to national economic development.

Furthermore, the remaining portion of Iraqi national income has increased at a rate of 84.7 per cent for the same period, at an annual growth rate of 9.4 per cent. A proportional decline in the exported national income has been noted, whereas its absolute value has increased from ID 78,450,000 to ID 138,580,000 (\$386,638,200). Also the productive national income in the oil sector constituted a proportion amounting to 44.2 per cent in 1958. This

Table 7National Income in 1958 and 1966 at Current Prices

Sector	National Income in 1958		National Income in 1966	
	ID 000	%	ID 000	%
Agriculture	91.450	24.3	174.200	25.3
Oil	166.100	44.2	298.615	43.4
Other Minerals	1.750	0.5	5.188	0.8
Oil Refineries	3.480	0.9	12.616	1.8
<u>Other Processing</u>				
Industries	28.460	7.7	50.320	7.3
Construction	29.560	7.8	19.126	2.8
Electricity, Water and Gas	2.270	0.6	12.041	1.8
Transport	26.030	6.9	58.855	8.5
Trade	26.720	7.1	56.852	8.3
Net National Income	375.820	100	687.813	100
Portion of national income exported by oil companies	78.450	20.9	138.580	20.1
Balance of Iraqi national income	298.370	79.1	549.233	79.9

Source: "Statistical Abstract of 1957-67" Ministry of
Planning, Republic of Iraq, 1968, p 110, Table 7/11

ID = \$2.79 at the time 1958 - 1966

ID = £1.27

proportion declined to 43.4 per cent in 1966 at a very low rate, whereas the rate of its absolute value increased considerably.

The industrial sector also suffered from decline during the same period from 7.7 per cent in 1958 to 7.3 per cent in 1966, but on the other hand, the agricultural sector improved somewhat; the amount and proportion allocated to it increased from 24.3 per cent in 1958 to 25.3 per cent in 1966. Transport and trade had also improved by increasing their amount and proportion from 6.9 per cent and 7.1 per cent respectively in 1958 to 8.5 per cent and 8.3 per cent in 1966.

To clarify the Iraqi economy at the 1958-66 period, it is necessary to identify the formation of fixed capital. Table 8 explains the general trend in reducing the proportional importance of gross capital formation to that of gross domestic product (GDP) or gross national income (GNI). These proportions declined from 24.7 per cent and 27.7 per cent in 1957 to 15.8 per cent and 18.5 per cent respectively in 1966. Dr Hashim explained that the gross capital formation during 1958 and 1959 was lower than in 1957 and the successive years, a fact which explains "the unstable political conditions that led to the decline in investment activity" (1972, pp 27-28).

In conclusion the Iraqi economy during the period 1958-1968 can be identified as follows:

- 1) The agricultural sector remained backward compared to other sectors. The value of the additional gross agricultural product increased from ID 92.8 million (\$258,912,000) in 1958 to ID 205.8 million (\$574,182,000) in 1968; a 2.2 per cent increase during ten years, even though this sector remained the basic one which provided the domestic industry with raw materials; moreover, its products represented the highest percentage in exports (excluding oil).

- 2) The additional processing industries increased from ID 36.8 million (\$102,672,000 in 1958 to ID 94.6 million

Table 8

Gross Domestic Product, Gross National Income,
Gross Capital Formation
During the Period 1957-1966
 At Current Prices (ID 1000)

Year	1 GDP at Factor Cost	2 GNI at Factor Cost	3 G Fixed Capital Formation	4 1:3 %	5 2:3 %
1957	430.060	383.600	106.290.3	24.7	27.7
1960	565.360	470.030	120.239.9	21.3	25.6
1961	615.060	520.060	137.216.8	22.3	26.3
1962	658.420	564.550	119.233.5	18.1	21.1
1966	945.532	806.966	149.586.8	15.8	16.5

Source: Dr Jawad Hashim, "Capital Formation in Iraq 1957-70"
 Al-Thawra publication, Baghdad, 1972, Table 10 - p 92

(\$263,934,000) in 1968; a 2.5 increase during the same period. The trend of consumptive industries remained in control where most of the industrial sector products depended on the agricultural sector products; such as cotton, wool, leather, cigarettes and food stuff industries. In the fifties, few other industries appeared to support the building industry, such as cement and concrete. Some mechanical industries were created in the private sector, such as the aluminium industry.

3) The oil sector was still under the control of the multi-national oil companies, which isolated this vital sector from the rest of the Iraqi economy. Even the fixed investments in the oil sector fell under the political situation which prevailed in the country; these investments started by increasing slowly, then more rapidly during 1957-61, from ID 5.1 million (\$14,229,000) in 1957 to ID 22.3 million (\$62,217,000) in 1961, but they declined to ID 4.7 million (\$13,113,000) in 1962 due to the application of Law No 80 of 1961 which limited the operation areas of the oil companies by 740 square miles.

4.3 Efforts to Improve the Economy

The Iraqi government has enacted several economic development programmes since 1950. The first three programmes, 1951-56, 1955-59 and 1955-60 emphasised the development of agriculture, whereas the fourth economic development programme 1959-60 to 1962-63 emphasised the development of the transportation and communications sector. However, the government, after a few months of working with this programme, replaced it with a fifth economic development programme, 1966-67 to 1967-70 and in the seventh programme for the period 1970-74, and since that time nearly all the development plans have been under restricted secrecy, all the figures not being allowed to be revealed for any reason, the latest economic development programme has been published in the United Nations Statistical Year Book 1975, p 825, and nothing more; but the outlook of the major development plans, the major emphasis was placed on the development of the industrial sector, roads and bridges, as well as communications.

Table 16 presents a comparative picture of the percentage attributed to the agricultural, industrial, transportation and communication sectors of the different development programmes up to 1974, (see Table 9).

Chart 3 illustrates the unstable relationship between the estimated and actual expenditures of the development programmes from 1951 to 1964. It is evident that the estimated expenditures have never been fully spent.

None of the economic programmes, however, have integrated the development of education as an integral, if not a leading sector in the development of Iraq. Also, none of the programmes considered developing the various sectors of the national economy simultaneously in a balanced approach to economic growth or by an unbalanced approach.

Not one of the first four programmes was completed. El-Kaissi, 1959, pointed out the results of the development programmes enacted by the development board as being "... swimming pools, the recreation facilities on (the) Tigris, the houses for boyguards, the lakes, statues, or other luxurious furnishings" (p 9).

In addition, the government paid more attention than it should have done, to the construction of modern roads and bridges, and they still follow this policy, especially in the capital, Baghdad. The construction of such roads and bridges was not specifically for economic objectives, since they only benefitted the big cities like Baghdad, Basra, and Mousel. From the development standpoint, the purpose for constructing roads and bridges should be to connect the many regions of Iraq, thus permitting easy movement of agricultural and other resources to the consumers and markets around the country. El-Kaissi stated that the duty of the Board of Economics, which replaced the Development Board, was to: "draw up a long term plan for developing the different sectors of the national economy in all regions of Iraq, taking into consideration maximum social benefit, rather than maximum monetary gains alone" (Ibid, p 10).

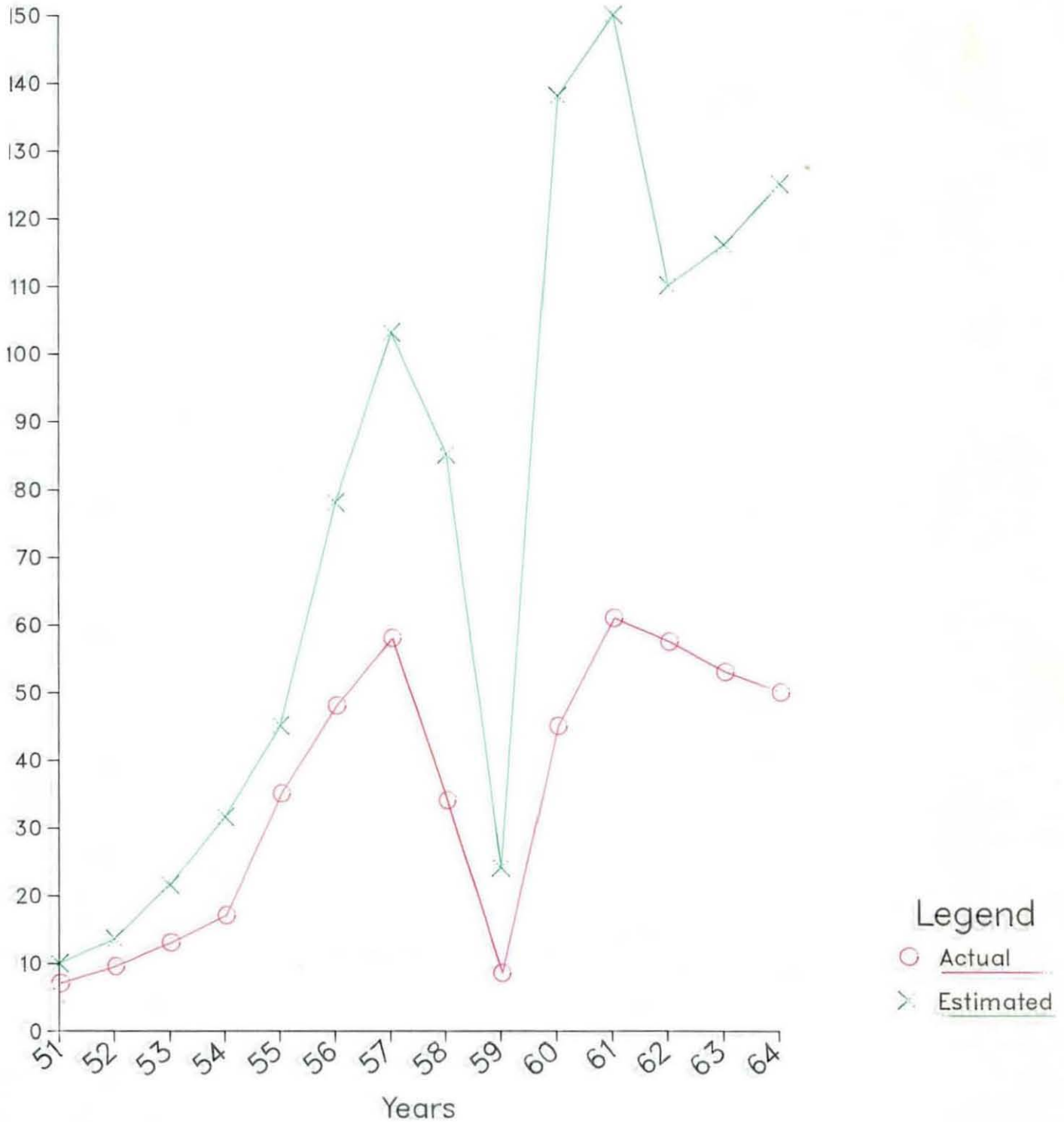
Comparison of the Agricultural, Industrial, Transport and Communication Sectors of the Different Development Programmes (per Cent)

Programmes	1	2	3	4	5	6	7
Sectors	1951-56	1955-59	1955-60	1959-60 to 1962-63	1961-62 to 1965-66	1966-67 to 1969-70	1970-74
Agriculture	49.14	37.60	33.61	12.22	20.30	27.28	20.57
Industry	19.98	14.32	13.42	9.88	30.00	36.41	28.40
Transport & Communication	17.23	24.38	24.87	25.71	24.50	17.38	14.52
Total Per Cent that these sectors were allocated collectively from the total allocation of expenditure	86.35	76.30	71.90	47.81	74.80	81.07	73.49
Buildings & houses	11.60	19.98	26.65	32.35	25.20	-	-
Administration, studies and organisational exp.	2.05	1.79	1.47	-	-	-	-
Public health	-	-	-	6.27	-	-	-
Public culture	-	-	-	9.99	-	-	-
Buildings & other social services	-	-	-	-	-	18.93	26.51
Misc small projects	-	1.93	1.98	-	-	-	-
Provisional	-	-	-	3.58	-	-	-
Total	13.65	23.70	28.10	52.19	25.20	18.93	26.51
Grand Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Al-Shaikhly, Falih (1974) p 77, Table 13

Table 9

Chart 3
 Estimated and Actual Expenditure of Development
 Programmes for the years 1951–1964



The Board of Economics began to enact economic programmes in 1959. The fifth programme stressed the development of industry more than the developments of the various other sectors of the national economy. Very little new manufacturing resulted from this programme. Iraqi manufacturing was still limited and largely confined to textiles, tobacco processing, soap, bricks, leather work and cement industries. Later in the 1970s, full development of industry, both light and heavy, started with the help of some industrial countries to build up an establishment of industrial bases for providing the Iraqi market with consumer products and productive materials to be used as a capital in production. This start enabled the Iraqi economy to become more self-sufficient in the late 1970s, and eased the almost total dependence on imported goods, but in spite of the government's demand for more self-sufficiency in production, the industrial development still lacked a fully-organised plan to create an industry in the fullest sense.

The majority of Iraqi people are uneducated. Development of education is the most vital element in achieving success in the development programmes. It would help create well-trained people in different fields to plan and achieve these programmes. Therefore the development of the educational sector should be integrated and considered the most important part of any development programme in Iraq. This would help bring well-trained and skilled workers and managers into existence to carry out the industrial aims of these programmes. Also the integration of education with other sectors of the national economy in one plan would help maintain an equilibrium between the supply of, and the demand for, college graduates.

Despite poverty, the problem of capital formation should be non-existent in Iraq, because Iraq receives a great amount of money in oil revenues each year. More densely populated countries tend to use primitive tools and equipment and a large labour force in production, while in Iraq, capital can be more easily used as a substitute for some of the labour force. This requires that labourers must be taught to understand the efficient use of the modern innovations in production.

In conclusion, Iraq has plenty of money from oil revenue for development, but very little of this development has been totally effective. The solution is a good plan and proper direction and management by the government.

4.4 The Iraqi Economy 1968-1980

1968 could be considered as the beginning of a new phase in the history of modern Iraq. After the 17-30 July Revolution in 1968, the government worked on economic, social and cultural transformation. The various branches of the Iraqi economy witnessed radical transformation, particularly in the field of nationalising the oil resources as well as major industrial concerns. All this nationalisation policy stemmed from the socialist ideology of the Ba'ath Arab Socialist Party which led to an overall predominance of the public sector in all economic and social life.

The first economic task faced by the government was to accelerate the application of the remaining projects of the 1964-69 five year plan and the completion of those on which work had already begun, but stopped for one reason or another. Despite the non-execution of most of the projects in the pre-revolution era, in addition to the shortages of technical and administrative staff and establishments, the rate of execution in some economic sectors increased after the 1968 revolution. Taking into account actual spending as an indicator for the project executed, the rate of execution in the construction and housing sectors amounted to 95.7 per cent to be followed by 63.1 per cent in transport, communication and storage, 52.2 per cent in industry and 47 per cent in agriculture. The rate of execution in the agricultural sector in 1969 was the highest ever reached in all previous years' plans despite its decline, compared to the rest of the economic sectors (Omar h., 1972, p 69).

The National Development Plan for 1970-74 was drawn up to promote the forces of production, by adopting modern technology and promoting workers efficiency first, and secondly to create a balance in the development of the various economic sectors, to ensure both the needs of the people and the industrial

development, are met, thirdly to work on expanding the base of export and its diversification, together with raising production efficiency and accord support to the marketing machinery. Also defining production and import targets in a way guaranteeing the improvement of volume and quality of consumer goods, thus attaining a higher standard of living, particularly of the lower-income groups, and providing production requirements for all productive units.

To accomplish the economic strategy, Iraq required availability of materials such as adopting the scientific planning method to ensure a result of an economic plan which takes the form of detailed programmes of defined features for the productive machinery to implement and follow-up in order to discover the mistakes and shortcomings for future avoidance, and to draw up a detailed and comprehensive plan which reflects the economic and social objectives sought by the development strategy. The economic plan drawn up by the 1968 Revolution took into consideration the experience and lessons of past planning in Iraq. The government wanted the new plan to stem from reality on the one hand and to cover economic and social aspects of life on the other. The planned two targets were:

- 1) Obtaining an important rise in the standard of living by increasing the average economic growth, and ensuring at the same time a reasonable degree of economic stability.

- 2) Restoring the balance of Iraqi economic structure by a diversification of domestic production so as to lessen the dependence on oil benefits as a source of foreign currency. This would require an important increase in agricultural and industrial production, thus enabling an increase in non-petroleum exports; and also through using the ever-increasing domestic products as a replacement for imports (Hashim J. et al, 1971, p 33).

Moreover, the plan did not confine itself to defining the economic and social objectives; it also defined a number of policies, means and measures towards the advancement of the

role of the public sector as a base of socialist transformation; create a balanced economy by taking the available material resources and the requirements of the plan's projects into consideration; avoiding an imbalance between the available resources and the demand for such which will eventually prevent the rise in price levels and the occasional monetary inflation that accompanies the development operations.

The plan drew up detailed objectives for the various economic sectors. It developed agriculture at an average annual rate of 7 per cent and met the country's requirements for major agricultural products and that of the industry's requirements for agriculturally-produced materials with emphasis on vertical expansion, encouraging therefore exploitation of both crops that were usually imported and those that could be exported, and work on the completion and expansion of dams.

In the industrial sector, the plan aimed at raising production at an annual compound average of 12 per cent. To achieve this ambitious target, the plan defined the necessary requirements which ought to be accomplished, and drew up these general aims:

- 1) Completion of industrial projects which had not been completed by the previous plans.
- 2) Attaining a balance in the distribution of industrial projects in the Iraqi region.
- 3) Encouraging exports whenever possible, and lessening dependence on oil exports, and,
- 4) Work on achieving self-sufficiency within the limits of available resources and in view of attempts to effect the industrial complementary plans with the other Arab countries.

To achieve these aims, the plan gave priority to some industries such as heavy industry, e.g. cement, sulphur, car and tractor assembly, iron and steel, food processing, paper and pulp, sulphur extraction, electrical appliances and other

engineering industries (National Plan document 1968-76, pp 32-35). The plan obliged establishments in the public sector to draw up productive plans for their affiliated organisations. The public sector reserved key and capital industries, and large investment projects, whereas private enterprises and private capital could participate in industrial pursuits through the so-called mixed sector (government and public capital.)

Another measure related to the diversification of the economy is the integration of the oil sector into the economy. Prior to 1968, the relationship between the oil sector and the rest of the economy was only monetary. The revenues from oil provided the main financial source for development of other sectors. After 1968, and especially following the oil nationalisation measures of 1972-75, the pattern of links between the oil sector and the remainder of the economy has changed. Oil is looked at as:

- a) a financier of other sectors, and also
- b) as a source of raw material for petro-chemical and other industries.

Hence, the establishment of large and high capital intensive industries, i.e. sulphur extraction from gas for fertilisers. In order to achieve the policy of diversification of the economy, close co-operation was sought with some developed countries to make use of their technology and technical expertise which would help to accelerate the process of implementation of developmental projects in the overall national plans, and to speed up Iraq's capital absorption capacity; also to strengthen the public sector economic diversification policy.

For the utilisation of foreign technology after 1968, in the development projects, oil revenues were used to develop the oil industry itself, and oil was used as a method of exchanging capital goods and machinery which is used for industrial and agricultural development.

Thus, in recent years, the model of the Iraqi economy has begun to take its shape as one of a public sector dominated economy which is highly dependent on the purchase of foreign technology and foreign technical experts. Both are paid for by national money at international market prices, which have been characterised by high levels of inflation since the mid 1970s (Hussen, 1974, p 36). Iraq has been in a position to pay increasingly high bills for the import of capital goods. These bills are rising because the recent Iraqi government policy is directed towards the acquisition of expensive capital-intensive technology which takes account of the twin shortages of manpower and skills.

4.5 Development of the Oil Sector and Its Impact on the National Economy

Iraq's spectacular economic development (in terms of growth of national income and Gross Domestic Product), especially in recent years, has been principally a result of its oil wealth. Though Iraq remains an agricultural economy in terms of employment and despite the successive policies of diversification of the economy, the country is highly dominated by the oil sector. Oil, which is wholly state-owned, is the most vital industry in Iraq. Oil revenues are the country's principal source of wealth as they are the major source of income and investment appropriated for the national development plans. Indeed, the development of oil production and export is indicative of the country's economic welfare and vice versa. Table 6 shows the development of oil production and export over the last two decades.

Table 10 shows that by 1980, Iraq's crude oil production was four times its production twenty years earlier. In fact, by 1979, Iraq was the second largest Middle East oil producer after Saudi Arabia. The country consumes a portion of its oil product, but more than 90 per cent of its crude oil output is exported abroad. Therefore, a characteristic of the Iraqi economy is its complete dependence on revenues occurring from crude oil exports, as seen in Table 11 which compares the value of oil and non-oil exports over the last two decades.

Table 10

Crude Oil Production and Export
1960-1980

Year	Million Long Tons		
	Production (1)	Export (2)	Per Cent
1960	46.7	44.5	95.3
1965	63.5	60.7	95.6
1970	75.2	72.1	95.9
1975	109.2	99.4	91.0
1980*	193.1	177.7	92.0

Exchange rate for \$ (1) up to 1972: ID = \$2.28 and from
1973-4 to 1980: ID = \$3.37

(2) up to 1968: ID = £1.27
up to 1973-4: ID = £1
up to 1982: ID = £1.50 (Central
Bank of Iraq)

- Source: 1. Oil Production 1960-69 "Central Statistical Organisation, Ministry of Planning", Statistical Pocket Book 1960-70, Table 46, p 121.
2. Oil Exports between 1960-69 "Ministry of Planning" 1971a: answers, etc, Table 13, p 31.
3. Oil Production and Export between 1970-76 "Central Statistical Organisation - Ministry of Planning" Statistical Pocket Book 1976, Table 24 p 47.
4. Oil Exports between 1977-80: OAPEC 1980, Table 54, p 71.

* 1980-1984 - data not available

Table 11Value of Oil and Non-Oil Exports 1960-1980 at Current Prices

Year	Million Iraqi Dinars				Total Exports
	Non-Oil Exports		Oil Exports		
	Value	Per Cent	Value	Per Cent	
1960	11.0	4.7	222.6	95.3	233.6
1965	21.4	6.8	293.6	93.2	315.0
1970	24.7	6.3	368.1	93.7	392.8
1975	35.6	1.4	2414.6	98.6	2450.1
1980*	54.5	0.7	7727.5	99.3	7782.0

Exchange rate for \$ (1) up to 1972 ID = \$2.79
 from 1973-4 to 1982 ID = \$3.37
 (2) up to 1968 ID = £1.27
 up to 1973-4 ID = £1
 up to 1982 ID = £1.50

(Central Bank of Iraq)

Source: 1. Value of Oil and Non-oil Exports between 1960-71 worked out from "Annual Abstract of Statistics - Ministry of Planning" 1971: Tables 108-111, pp 213-216
 2. Value of Non-oil Exports between 1972-77 worked out from "Annual Abstract of Statistics - Ministry of Planning" 1978: Table 8.1, p 166
 3. Value of Oil Exports between 1972-77, as 2. above
 4. Ministry of Planning Statistical Pocket Book 1983

N.B. The Iraqi Dinar was not devalued at any time.

* 1980-1984 - data not available

Table 10 shows that oil sales abroad have throughout the last two decades accounted for much more than 90 per cent of the country's export earnings. This ratio has much increased in recent years and since 1974 oil exports have been providing an average of 98.5 per cent of total foreign trade.

Although the government has been attempting to increase the non-oil exports by raising agricultural and industrial production and also by establishing reliable markets abroad for Iraqi goods, i.e. dates, cement, fertilisers, electrical goods, petroleum products, the value of non-oil exports has still been nominal and very marginal when related to the rapid rates of increase in the oil sector, as indicated in Table(II). In absolute terms the value of non-oil exports increased more than five times between 1960 and 1979 but its share of total exports has declined from 4.7 per cent in 1960 to as little as 0.7 per cent in 1979. Therefore, oil sales abroad have been the major factor in earning foreign exchange.

Iraq's foreign trade in the last twenty years has been characterised by a surplus of funds which has been dramatically increasing since the rise in oil prices in 1973/4. The large surplus of the oil sector's trade balance more than offsets the heavy deficit on other goods and services. It suffices to note that in 1980 total exports from Iraq were about ID 7.8 billion and about 99.3 per cent of that amount was due to oil exports. This caused a surplus of ID 4.4 billion (about £7.6 billion) after paying off the large import bill of ID 3.4 billion (about £5.9 billion). This surplus is very important to finance the government budget and the development programmes.

Like the other oil producing countries of the Middle East, the trading surplus, principally due to crude oil exports, has provided the government with more receipts than did all the rest of government revenues combined. The oil sector in Iraq accounted for approximately 87.4 per cent of the government budget in 1980, compared to 47.6 per cent in 1960 (Ministry of Planning, 1971, p 33).

The vast development projects needed increased finance which has been adequately met thanks to the oil revenues. These revenues constituted 55.8 per cent of total allocations of the 1961-65 plan. This share went up to 69 per cent in the 1965-69 plan and became 89.8 per cent of the grand total of the 1970-74 plan (Ministry of Planning, 1975, p 17). The surplus foreign currency accrued from oil exports is especially necessary since current rates of inflation in the industrialised countries make their technology increasingly expensive to purchase and only very high financial resources could purchase both technology and technical expertise, which are badly needed for Iraq to develop its resources.

Given an abundance of untapped minerals, adequate water resources, an abundance of land and a fairly large population, Iraq's resource base and its potential to embark on development and industrial projects seems broader than many other oil producing countries in the Middle East. This factor, in conjunction with substantial oil resources, has given impetus to the strengthening of the policy of diversification of the economy. However, in terms of employment, the oil sector has a very small role. As a highly capital intensive industry and despite its size and importance, the oil sector, according to the 1977 census, employs about 1.2 per cent of the total labour force (Annual Abstract of Statistics, 1978). Thus, the country has been able to provide the bulk of its wealth which is derived from oil production and export, using a minimum part of the indigenous labour force complemented by high level foreign skills. This explains the fact that spectacular economic performance in terms of national income and Gross National Product has been achieved despite a shortage of manpower and technically trained workers.

4.6 Performance of the Economy

In this section we have taken the following as indicators of the performance of the Iraqi economy: national income, per capita national income; Gross Domestic Product (GDP) and

per capita GDP. The period covered is 1960 to 1982. This period has been divided into the two distinct political periods, before the 17-30 July 1968 Revolution, and after, namely 1960-67 and 1982. The rate of growth of each of the four variables above is calculated for each of these two periods. Table 12 and Table 13 illustrate the performance of the Iraqi economy during the last two decades.

Table 12

Performance of the Iraqi Economy 1960-1982 at Current
Prices

Year	National Income (Million ID)	Per Capita National Income ID	GDP (Million ID)	Per Capita GDP ID
1960	437.1	63	565.1	82
1970	905.4	95	1,139.8	120
1975	3,491.4	312	3,904.0	349
1980	15,323.0	1,157.4	15,647.2	1,181.9
1981	8,925.8	653.6	10,477.3	766.5
1982	12,334.6	874.2	1,266.5	897.4

ID = \$2.79 (1960-1972)

ID = £1.27 up to 1968

ID = \$3.37 (up to 1982)

ID = £1 up to 1973/4

ID = £1.50 up to 1982

Source: 1) Ministry of Planning, Annual Abstract of Statistics
1978, Table 511, p 133

2) Statistical Pocketbook, 1983, Table (21), p 47

Table 13Average Annual Rate of Growth of National Income, Per CapitaNational Income, GDP and Per Capita GDP1960-1982

Period	National Income %	Per Capita National Income %	GDP %	Per Capita GDP %
1960-67	6.3	3.5	5.7	2.9
1968-82	25.3	19.8	22.2	19.7

Source: Calculated from Table 8

It is noted in Tables 8 and 9 that the average annual rate of growth of the national income, per capita national income, GDP and per capita GDP in the first period was very low for all variables. This was due to:

- a) the unstable political situation,
- b) the protracted dispute with the foreign oil companies during that period, and
- c) the industrial nationalisation measure of 1964 which for some time affected the activities of the private sector.

In contrast, an impressive performance of the economy was observed in the second period (1968-82). The rate of growth of national income, which was 6.3 per cent in the first period, increased more than four times during the second period. As a consequence, per capita national income increased at a rate of as high as 19.8 per cent. Similarly, during the second period, the GDP was achieving an average annual rate of growth of 22.2 per cent compared to 5.7 per cent in the first period. Consequently, per capita GDP between 1968 and 1982 grew at a rate as high as 19.7 per cent compared to as little as 2.9 per cent during the years 1960-67.

The rate of growth in the four variables above has been achieved despite the fact that the population has been growing at a rate of about 3.5 per cent. This factor explains the fact that the rates of growth of national income and GDP have been higher than that of per capita national income or per capita GDP.

Another feature of the performance of the Iraqi economy is that decline or growth of national income and GDP is associated with decline or growth of crude oil production and export. When the latter increased (e.g. since the mid-1970s) the performance of the Iraqi economy, as indicated by the four variables above, also increased and vice versa. For example, the dramatic increase of national income between 1975 and 1979 at an annual average rate of 22.9 per cent and the per capita national income at a rate of 19.5 per cent have been closely linked to the high increase of oil output and export during these years.

This total dependence on primary products for economic growth represents a shortcoming of the economy in which other sectors, e.g. the industrial sector, contribute marginally to the national income and GDP. Hence, government policy to diversify the economy by creating a broader industrial base. However, such an attempt is faced with the salient problem in the Iraqi economy of shortages of manpower and skills which represent the biggest constraint on industrial development in Iraq.

4.7 Correlation between Economic Growth and Educational Development

While the economy, in terms of GDP, was growing at a very respectable rate, the supply of labour for industrial development and other development programmes, training centres as well as educational institutions, student enrolments, etc, were in decline at a rate of 1.3 per cent between 1960 and 1967. In the post-1968 period there was a swing to bring the educational system into line with industrial and economic development as much as possible. The

increasing attention given to educational research in relation to diversifying education to meet the particular policy of diversification of the economy, more incentives and better facilities were provided for students to cut the number of drop-outs and repeaters in all educational levels. Al-Bazzaz (1975) indicated that one of the main reasons behind this problem was the quality of the Iraqi educational system, which was not fulfilling the students' expectations; this resulted in students leaving school at the first chance (p 5).

The Unesco Conference for Arab Economic Planning Ministers, held in Morocco in 1970, pointed out that the educational system in all Arab countries was not sufficiently developed to be capable of stimulating students to stay at school, especially the age group 12-18 years. In Iraq's case, and according to Table 14, for students who entered primary schools in 1965, the percentage of drop-outs in 1969 was 23.5 per cent for boys and 26.8 per cent for girls (Al-Bazzaz, 1975, p 13), on the other hand, Table 15 shows that the percentage of secondary school drop-outs was 18 per cent for boys and 15 per cent for girls.

According to the Iraqi Ministry of Education - Educational Statistical Report 1979-80 (see Table 16), the number of primary school drop-outs fell to 28,131 at all levels due to the introduction of "compulsory education" in 1977-78.

Therefore, the decreasing rate of drop-outs between 1968 and 1980 was more encouraging, showing that students were responding positively to changes in the system, which augured well for the development of industry and the economy.

In relation to the development of economic plans, another factor is raised by the great need for a quick remedy to respond to the demand for industrial labour at the skilled worker level. According to the Ministry of Planning "Manpower Plan 1976-1980", the demand for industrial labour from different sectors and ministries was 75,259. The output of formal and non-formal vocational training institutions

Table 14

Number of Drop-Out Students by Grades and Sex in Primary
School for the Years 1965-66 to 1969-70

Class	Student Nos		No of Drop-outs		Percentage of Drop-Outs		Total Number of Students	Total Number of Drop-Outs
	Boys	Girls	Boys	Girls	Boys	Girls		
1	706971	327240	72672	34985	10.2	10.6	1034211	107657
2	582014	263512	26143	14400	4.5	5.5	845526	40543
3	524885	229640	21689	11429	4.1	5.0	754525	33118
4	533204	224322	27017	13138	5.1	5.9	757526	40155
5	589144	212914	53151	22102	9.0	10.3	802058	75253
6	514110	165570	54787	13147	10.7	7.9	679680	67933

Source: Al-Bazzaz, H, and J.K. Bunny "Drop-Out in Education"
Ministry of Education Publication - Baghdad 1975
Table 9, p 43 (in Arabic)

Table 15

Number of Secondary School Drop-Outs by Grades and Sex for the
Years 1965-66 to 1969-70

Class	Student Nos		No of Drop-Outs		Total of Drop-Outs	Percentage of Drop-Outs	
	Boys	Girls	Boys	Girls		Boys	Girls
1	268669	108880	19822	7691	27513	7.3	7.0
2	199964	74481	12183	4086	16269	6.0	5.5
3	165359	57302	9340	2886	12226	6.5	6.0
4	76291	28796	3708	936	4644	5.0	3.25
5	71445	25813	1675	585	2260	2.34	2.26
6	-	-	-	-	-	-	-

There was no Class 6 in the years 1965-66. Ministry of Education increased the upper secondary level one year in 1969-70.

Source: "Drop Out in Education" - Al-Bazzaz and Bunny, 1975,
Ministry of Education Publication, p 46, Table 11

Table 16

Number of Primary School Drop-Outs by Grade and Sex for the Year
1979-1980*

Grade	No of Students		Total	No of Drop Outs		Total	Percentage of Drop-Outs
	Boys	Girls		Boys	Girls		
1	212758	214035	426793	2564	2451	5015	1.75
2	308226	366095	674321	1712	1982	3694	1.54
3	228924	169928	398912	1324	1574	2898	0.47
4	240926	166343	407269	3050	1567	4617	1.13
5	250478	155288	405766	5562	1888	7450	1.83
6	193321	102800	296121	4453	1004	5457	1.84

Source: Ministry of Education "Annual Report - Education Statistics" 1979-80: Baghdad, Iraq, Table 17/2, p 61

* 1980-1984 - data not available

Primary School Drop-outs 1979-1980

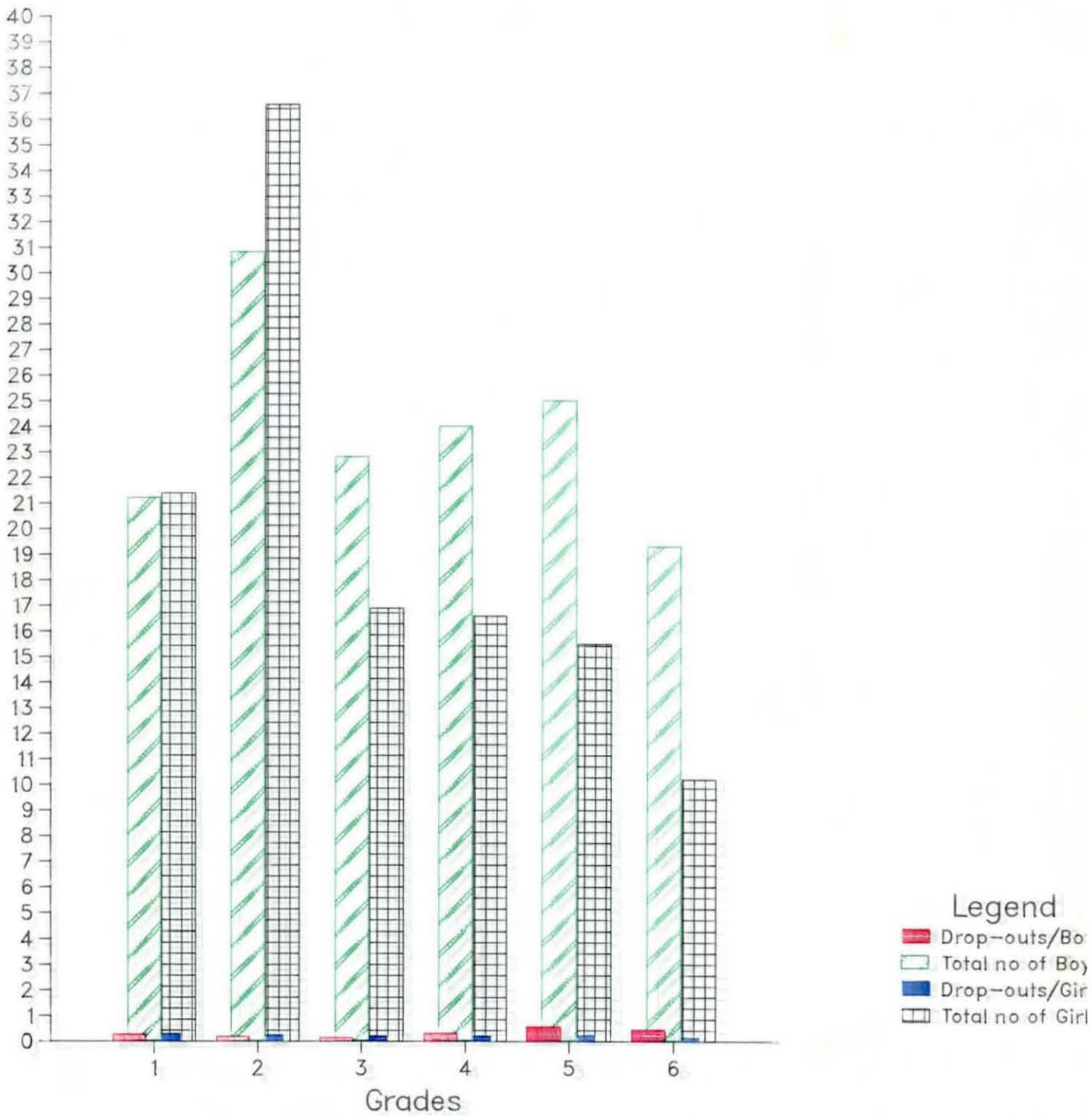


Chart 4

Secondary School drop-outs 1979-80

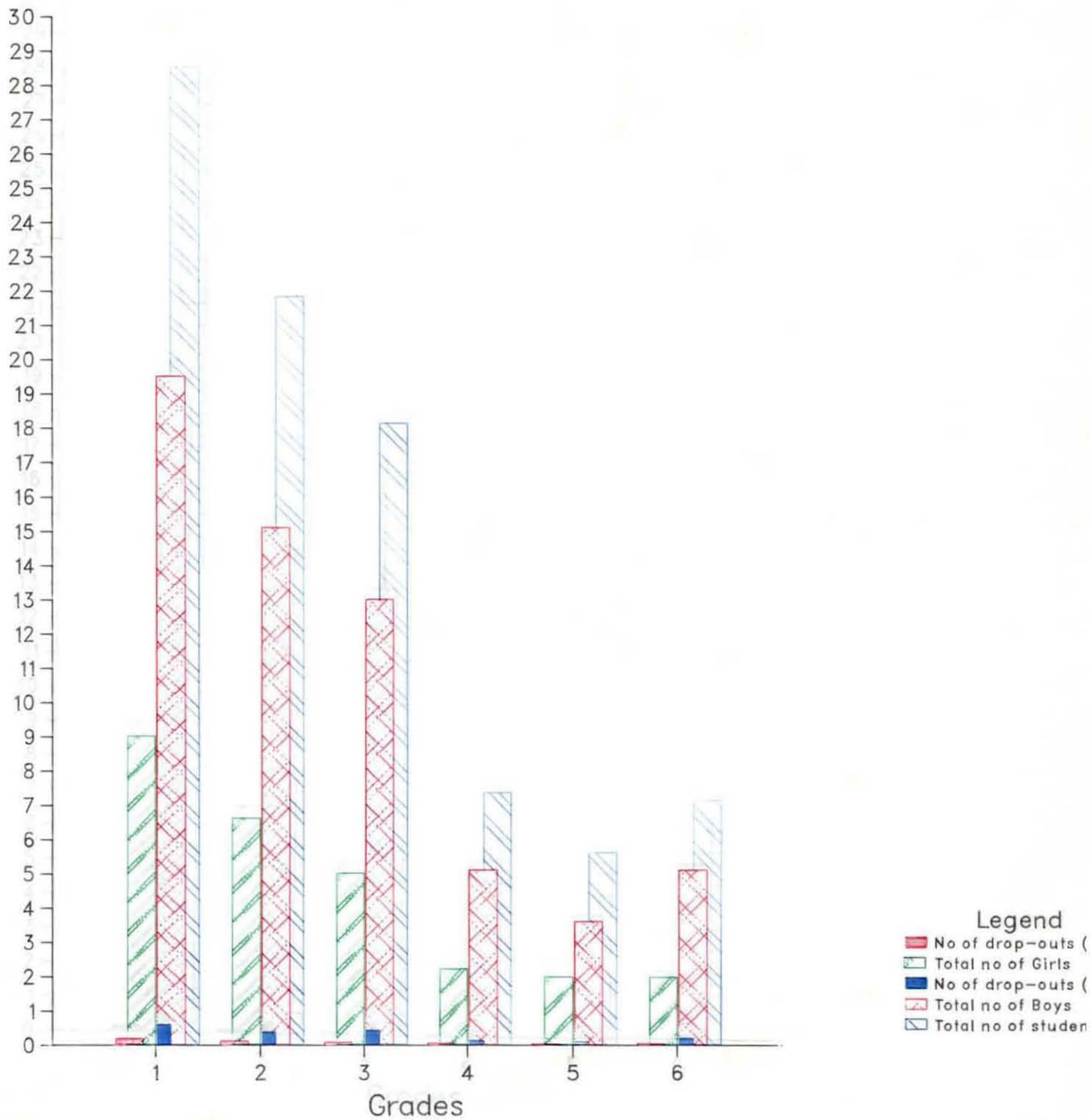


Chart 5

Table 17

Number of Secondary School Drop-Outs by Grade and Sex for
the Year 1979-1980*

Grade	No of Students		Total	No of Drop-Outs		Percentage of Drop-Outs	
	Boys	Girls		Girls	Boys	Boys	Girls
1	195568	90008	285576	1861	5753	3.0	2.06
2	151475	66638	218113	1045	3451	2.27	1.56
3	130138	50931	181069	697	3976	3.0	1.36
4	51448	22078	73526	479	1038	2.0	2.16
5	36216	19734	55950	225	659	1.8	1.14
6	51592	19645	71237	330	1681	3.25	1.67
Grand Total	627967	269034	897001	4637	16558		

Source: Ministry of Education, "Annual Report - Educational Statistic" 1979-80, Table 24/3, p 117, Baghdad, Iraq

* 1980-1984 - data not available

during these years was 22,414 graduates (see Table 18). Thus their supply represented 29.8 per cent of the total demand of additional labour force at the skilled worker level between 1977 and 1980. The Manpower Plan 1976-1980 indicated that between 1977 and 1980 there would be a shortage of 52,489 skilled workers representing 69.7 per cent of the demand.

Table 18

Annual Demand of Skilled Workers for the Manufacturing Sector
and Vocational Institution Supply
1977-1980*

Skilled Workers	1977	1978	1979	1980	Total
Demand	14895	17718	19958	23188	75259
Supply	3711	3594	6555	8554	22414
Shortage	-11184	-14124	-13634	-14634	-52845

Sources: 1) Demand figures according to the Ministry of Planning "Manpower Plan 1977 - 1980" Vol 2, Table 3, p 5

2) Figures between 1977 and 1979 from Central Statistical Organisation Report - Ministry of Planning, February 1980, Table 23, p 117

* 1980-1984 - data not available

The problem of the skilled workers from a wide range of skills looks even more serious when looked at from the viewpoint of demand for skilled manpower for the total economy which is indicated in Table 16 below, which shows the Manpower Plan 1976-80 estimates of total demand and total supply of skilled workers for all sectors of the economy.

Table 19 indicates the seriousness of manpower problems in Iraq. According to the Manpower Plan 1976-1980, estimates between 1977 and 1980 show the supply side covers little more than one third of demand for labour at the skilled

worker level and serious manpower shortages are experienced in other skill levels as well.

Table 19

Demand and Supply of Manpower at all Skill Levels 1977-1980

Skill Levels	Demand	Supply	%
Specialists (1)	50.214	35.459	70.6
Technicians (2)	24.791	24.791	55.0
Skilled Workers (3)	150.810	55.333	36.7
Semi-Skilled Workers (4)	158.860	51.658	32.5

Source: Manpower Plan 1976 - 80, Ministry of Planning, Vol 2
Table 7, p 9

Notes: According to Iraqi definition:

- (1) People who hold a university and above degree
- (2) People who have a two to three year post-secondary technical education
- (3) Graduate of vocational school who received a three year post intermediate education and training
- (4) People who can read and write and have some technical training.

In view of the manpower problems in Iraq, the government has resorted to a variety of artificial methods to face the manpower problem and continue with its policy of diversification of the economy. Amongst these:-

- a) their dependence on foreign skills. In 1977 the Revolution Command Council issued a directive requiring foreign companies operating in Iraq to provide employment for a sufficient number of non-Iraqi technicians to enable the completion of projects (Middle East Review 1981), and to face the severe shortage of indigenous manpower these contractors have to rely on imported manpower. Figures on such manpower are not available.

b) Encouragement of increasing women-power to participate in the modern sector of the economy through equal payment for both sexes; and establishment of nurseries attached to their work base, as well as giving six months fully-paid maternity leave.

c) Increasing dependence on rural-urban migration. Some of the rural immigrants who can read and write have found their way to the industrial sectors helped by in-industry, on-the-job training programmes. A statistical account of the operation and output of such programmes at the national level is not available.

To summarise, the Iraqi economy has, in recent years, stimulated local potential sources of manpower supply in addition to the utilisation of borrowed skills from abroad in order to cope with the big demand for skilled labour for the development programmes and an intensification of the policy of diversification of the economy.

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CHAPTER FIVEThe Iraqi Educational System: Origin, Present Curricula Structure, Administration, Organisation and Finance

- 5.1 Introduction
- 5.2 The Origin of the Educational System; Religious Education and the Beginning of Secular Education
- 5.3 The Formation of the Modern Educational System.
The British Administration
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CHAPTER FIVEThe Iraqi Educational System: Origin, Present Curricula Structure, Administration, Organisation and Finance5.1 Introduction

No more serious challenge confronts Iraq today than that of education, both as a means of building a new social structure and as an instrument of technological progress. The problem is one of vast dimensions. In 1947, when the first census was taken, only eight per cent of the population could read and write; of the total male population about 14 per cent were literate, while the corresponding figure for females was three per cent.

The problem is not only vast, but its solution has assumed critical urgency in view of Iraq's development programmes. Changes have been principally in numbers and equipment, while the intellectual and educational aspects that the people require to improve their standards of living have received little attention. Inadequate attention has been given compared to the growing and expanding economy, in a country where the resources should be used wisely.

"The necessity of changing old educational programmes and paying more and greater attention to industrial and vocational technical education is still pressing urgently and delaying the development programmes. Schools and universities are producing annually tens of thousands of students who are of no use to the industrial, agricultural and service programmes and development. The government finds it necessary to find jobs for those graduates in institutions which are already overstaffed" (The Political Report, 1974, p 182)

Therefore the vast social and educational inequalities require the release and deployment of all the potential

human and material resources. It is clear that nothing could be accomplished unless the country has full control and use of its economic resources, and this gradually has been achieved.

Since 1958, educational reforms have received a tremendous amount of support and generous proportions of the national budget. This was a natural process according to the Political Report adopted by the Arab Ba'th Socialist Party (ABSP). It stated that:

"the educational system should be planned in harmony with the principles and aim of the revolution" (1974, p 256)

The Report further emphasised:

"This however cannot be achieved unless a complete democratisation of education becomes a key feature in the process of changes, as well as full implementation of a real plan for the educational system which meets the need and demand of the rapid changes in Iraqi economic and technological life" (Ibid p 257)

This rather bland statement may be taken to refer to the need for all agencies directly involved in education to have their say regarding educational planning and development. In this chapter it is intended that the discussion will help to show how the current situation of the educational system has been influenced and moulded by historical trends.

5.2 The (a) Origin of the Educational System:

(b) Religious Education and the Beginning of Secular Education

The Arab conquest of Iraq in the year 637 brought not merely a new set of rulers but a language, religion and certain patterns of life which have characterised the country ever since.

Because Islam is the basis of Iraqi society it is not surprising that the mosque was the hub of the community and that in addition to its religious and social role it soon acquired an educational role; it became the earliest school in the society. Students learnt to read and recite the Koran, law, tradition, Arabic philology, and history were taught to large audiences of young students. Almost

simultaneously, a system of primary schools (mulla or Kuttab) was established to provide educational opportunities in learning to read and write which were also available in the mosques. The emphasis at these schools was upon religious training because Islam always placed a high value upon education as a part of its tradition, which also can be explained in terms of the structure value of the society and its urgent need to socialise large numbers of newly conquered converts and thus create a universal social order.

To do so, it is vital to educate children in Islamic teaching and beliefs, for that reason the koranic school or Kuttab was established to provide the required training, both in terms of subject matter and educational practice to the youngsters of Baghdad. These schools did not only socialise many different people, but they also provided the foundation for all further education (Akrawie, 1942, p 125). Whether the student was to pursue a military, administrative, religious or commercial career, his early training was in these schools.

From the time the child began to go to school at six years of age, his main aim was to memorise the Koran to perfection in the years that he attended the school. When learning to write, children usually copied passages from secular works. Besides memorisation of the Holy Koran, the curriculum usually included the learning of fundamental religious practices, such as prayers in the mosque, and the different ways in which ablutions were performed, the rudiments of arithmetic and reading and writing. Often selections from well-known poets were also taught, but these were carefully screened to avoid the inclusion of erotic passages (Hasting, 1912, p 201).

Classes were held mainly in mosques or in buildings attached to them. Great efforts were made through the frequent provision of food, clothing and allowances for the students, to make such education possible for young muslims. Despite a high regard for education, the teachers (mulla) unfortunately, held a low status. The reason for this attitude was that the

teacher was regarded as being stupid, and it is true that most were quite ignorant, the ability to read the Koran and to explain its content in a simple manner was sufficient to qualify as a prospective teacher. In some schools, high standards were maintained and the teachers were chosen on the basis of their knowledge of the subject matter. This was true especially when some of these schools (kuttabs) were attached to major institutions of high learning (Hastings, pp 201, 202, and Akrawi, 1942, p 124).

Despite the criticism attached to teaching and its poor quality, as well as teachers themselves, teachers were expected to maintain high standards both in their personal lives and in their professional capacity. They had to possess much authority in the classroom. They were expected to administer corporal punishment as well as to use the rod frequently, to teach students manners as well as protect them from learning insulting speech. Corporal punishment could, however, only be used after students had reached the age of ten years.

This is the main outline of the old Islamic schools, (mulla or kuttab), these schools were at one time very widespread in Iraq, up to the late nineteenth and early twentieth centuries. A British government report on the administration of Iraq 1923-24 indicated that "the mulla school still exists in Iraq but their number is not known accurately, it was estimated that there were about 300 schools, with a total attendance of about 15,000 pupils" (p 202). In 1924-25, the inspectors of the Ministry of Education visited as many as 195 mulla schools, which had a total attendance of 6,925 pupils (Annual Report of the Ministry of Education, 1924-25, p 16).

During the nineteenth century, secular education was introduced through the Ottoman Empire, and local teachers (mulla) were asked to head the new schools, but in a year or two, as the schools grew, one or two newly trained teachers would be sent to assist them. Soon after, the mullas' duties would become limited, and later they were dismissed, allowing

the new system to become established firmly throughout the country, with the exception of some villages.

Military schools were founded because the Ottoman Empire felt it was the most needed. The Naval College was first established and was followed later by the Military College. The original idea seems to have been that boys would pass into Naval or Military College after finishing mulla school. It was soon realised, however, that the mulla (kuttab) school did not provide sufficient basis for military education. Therefore, a military preparatory school was opened called Idadi Askari. Another lower school, down the scale - a kind of upper elementary school - was established to follow the mulla school. This was called the Rushdi Askari. Later still, a lower school was opened known as the Ibtidoia - elementary school - (see Table 20 parallel with the military system, but in this case stressing civil instruction. (Al-Hilali, 1958, p 49).

It will be seen from this account that the Turkish school system was superimposed on the religious schools, mulla schools, and in many cases came to replace them. By the end of the nineteenth century the system thus created consisted of ten years schooling before entering the higher military or civil institutions and was divided as follows (see Table 20).

Table 20

Government and Muslim Schools in Iraq around 1890

Source: Akrawi, M. "The Reconstruction of Primary Education in Iraq" 1942, p 130

	Elementary and Mulla			Primary (Rushdi) Secondary (Idadi)						Higher Religious Schools		
	Schools	Students	Teachers	Schools	Students	Teachers	Schools	Students	Teachers	Schools	Students	Teachers
<u>Mousel (1)</u> All schools: 77) Students: 1,950) <u>Kirkuk</u> All schools: 57) Students: 1,950) <u>Sylaimaniya</u> All schools: 41) Students 1,200)				3						65		
Baghdad	40	1,460	40	3	570	19	1	63	20	26	2,100 (2)	36
Hilla	41	840	41	1	20	5	-	-	-	-	-	-
Karbala	43	910	43	1	20	5	-	-	-	13	750	26
Basra	40	730	40	1	20	5	-	-	-	-	-	-
Amara	12	130	12	1	25	4	-	-	-	-	-	-
Muntafiq	12	175	12	1	20	5	-	-	-	-	-	-
	188	4,245	188	8	675	43	1	63	20	39	2,850	62

Notes: (1) The school statistics for the Sanjaks of Mousel, Kirkuk and Sylaimaniya are given in bulk, not according to elementary, primary and secondary schools. At that time, however, there were evidently no secondary schools in the three Sanjaks

(2) Including Shiite Madrassahs (schools) in Kadhiman and Samarra.

Table 21

	<u>Civil</u>	<u>Military</u>
Elementary	3 years	3 years
Rushdi	3 years	3 years
Preparatory	3 years	3 years

Source: Al-Hilali, A. Education During Ottoman Empire, Baghdad, 1959, p 52, (in Arabic)

After the 1908 revolution two important modifications were introduced into the system. The first (Table 21) was unification of the Ibtidai and Rushdi schools into one complete primary school of six grades. The other was the addition of two years' work to follow the civil preparatory school, constituting what came to be known as the Sultani school, an equivalent to the French Lycee (Akrawi, 1942, p 127).

By the year 1909, another type of secondary school was opened, civil secondary school, and was followed by the opening of a teacher training college in Baghdad, and also early in this century a law school was opened.

The curriculum of the primary school emphasised teaching Arabic reading in the Quran, writing and arithmetic. Turkish and Persian were added, as well as history and geography of the Ottoman Empire, followed later by book-keeping, algebra and drawing (Al-Hilali, 1959, p 166). These were also taught in greater depth in the secondary schools, with great emphasis on gymnastics and military training.

Non-Muslim communities maintained their own schools which were entirely independent of the government. There were also some foreign mission schools. An attempt was made to expand the school system. For that purpose two new teacher training colleges were opened. Some schools for girls were also founded, while schools for boys increased in number. By 1913 there were 160 primary schools attended by 6,655 pupils and staffed by 321 teachers in the whole of Iraq (Ibid, p 228, 231) (see Table²²) which illustrates the quantitative increase of enrolment.

Table 22Public Primary and Elementary Schools in 1913

Province	Number of Schools			Number of Pupils			Number of Teachers	
	Boys	Girls	Total	Boys	Girls	Total	Men	Women
Basrah	16	1	17	449	11	460	26	2
Amarah	6	1	7	239	20	259	12	2
Muntafiq	7	-	7	231	-	231	12	-
Total - Basra Wilayat	29	2	31	919	31	950	50	4
Baghdad	51	4	55	2,257	432	2,690	114	15
Karbala	11	1	12	431	39	470	24	2
Diwaniya	9	2	11	343	68	411	23	5
Total - Baghdad Wilayet	71	7	78	3,031	539	3,571	161	22
Mousel	22	2	24	954	147	1,101	35	5
Kirkuk	19	1	20	747	38	785	33	1
Sulaimaniya	7	-	7	248	-	248	10	-
Total - Mousel Wilayet	148	3	51	1,949	185	2,134	78	6
Grand Total	248	12	160	5,899	756	6,655	289	32
							321	

Source: Al-Husari, 1967, Memories in Iraq, p 127

5.3 The Formation of the Modern Educational System, The British Administration

Following World War One, drastic changes in the political conditions of the Middle East led Iraq into a new era under British control and influence.

"In the aftermath of World War I the political configuration of the Middle East changed drastically. The Ottoman Empire disappeared and from its provinces emerged the new states of the region. The former Arab portions of the Empire were largely under British occupation and the map of the Middle East was redrawn to suit the desire of the victorious allies. Such new countries as Syria and Lebanon became mandate of France; Iraq, Palestine and Trans-Jordan mandates of Great Britain. Great Britain also maintained its control over the 'Persian Gulf States'" (Szyliowicz, 1973, p 179).

A natural result of the fall of the Ottoman Empire and the collapse of its education institutions was the unavoidable necessity of developing an appropriate educational system in Iraq that would meet the desires of the British rulers into providing education during their early years of administration (Al-Jeboury, H, 1970, pp 89-90). In fact:

"From the beginning, the necessity of encouraging education to provide youth for government service became a guiding factor and stimulated the establishment of educational facilities where the natural tendency on the part of the British authorities was to restrict education or to regard it as of secondary importance in the work of regenerating the country" (Ireland P W, 1937, pp 125-126).

Thus, during 1915 two schools were opened in Basra, in the south of Iraq. Other schools were opened as well in the years 1917 and 1918 in different places in the country (Al-Jeboury, 1970, pp 105-106). The control of the schools was at the time in the hands of the British Revenue

Commissioner, which later became the British High Commissioner in Iraq (Administration Report of the Department of Education, 1919, p 4).

The British authority decided that a course for the training of teachers should first be started. Accordingly, a three month training course was started at Baghdad in the summer of 1917. This was the nucleus from which the present Men Teacher Training College grew. Eighty one students, including many ex-teachers and other young men who had had some degree of education were admitted into the course. The standard was not high, but limited as the course had been, the product was declared to be a considerable improvement over the type of teacher previously found (Review of the Civil Administration of the Occupied Territories of Al-Iraq, 1914-18, p 61).

The British also initiated a dual system of primary education in Iraq which was similar to their educational policy in Egypt. One programme provided a four year terminal course of elementary education in localities where economic conditions made it impossible to provide six years of schooling. The other type was a complete six year course of elementary education leading to secondary schools. By 1928, Iraq had only 55 full six-year course schools out of 264 primary schools in the whole of Iraq. This duality of primary education, however, was abolished in 1930, thus making all primary education a complete six year course leading to secondary education (Harby, et al, 1965, p 59). The mulla schools continued to carry out their educational duties as religious institutions separate from public schools. Table 23 shows Arabic was the medium of instruction in Iraqi schools and English was taught as the principal foreign language (Ibid, p 59) and added to the curriculum were maths, geography, history and other subjects as shown in Table 4 to cover the whole educational area which the Turkish had forbidden in the schools.

As was the case with primary education, secondary education in Iraq also developed very slowly following World War 1.

Subjects	First	Second	Third	Fourth	Fifth	Sixth	Total	Percentage of the Total
Religion	4	4	4	4	2	2	220	10.4
Arabic	12	10	8	8	6	5	49	25.5
Arithmetic and Geometry	6	6	6	6	5	5	34	18.0
Geography and History	-	2	4	4	4	4	18	9.4
Object Lesson and Health	2	2	2	2	2	2	12	6.3
Civil and Moral Information	-	-	-	-	1	2	3	1.6
English	-	-	-	-	9	9	18	9.4
Penmanship	-	3	3	3	-	-	9	4.7
Drawing and Manual Training	3	2	2	2	2	2	13	6.7
Physical Education	3	2	2	2	1	1	11	5.7
Singing	2	1	1	1	-	-	5	2.6
Total	32	32	32	32	32	32	192	

* Lesson consists of 45 minutes

Source: Adapted from Akrawi, "Curriculum Construction", 1943, p 181

The Distribution of Lessons* in the Primary Course of Study in 1928

Table 23

The scope of secondary education remained very limited during the British occupation. Few secondary schools were maintained to feed the scant higher institutions existing at the time and to meet government demands (Ibid, p 59). In fact, it was 1920 when the first classes of secondary schools were started in Baghdad, Mousel and Basrah and in 1930, for the first time, secondary schooling for girls began in Baghdad, and not until the 1940s were more secondary schools for girls opened in other Iraqi cities.

According to the 1929 Educational Act a four year programme of secondary education was lengthened to a five year programme composed of an intermediate stage of three years and upper secondary stage of two years. By 1930 Iraq had only 15 secondary schools in Baghdad, Basrah and Mousel - with both the intermediate and upper secondary schools - with a total enrolment of 1836 students for the age range of 14 - 19 years (Hassan, 1958, p 42). Nor was much attention given to technical schools; by 1929-30 Iraq had only two technical schools, one in Baghdad and one in Mousel with an enrolment of 148 students (Al-Azzawi, 1955, Vol 7, p 65). This lack of technical education was due mainly to the poor response from Iraqis towards technical education. It has been said that such a negative response was inherited from the Turkish times and therefore that to the minds of most Iraqis technical education was equated with mechanical workshops, shaped just for poor and lazy students, with no good background economically or socially. Unfortunately, these ideas relating to technical education were reinforced as succeeding generations continued to associate vocational education with low social prestige, poor quality and limited job opportunities. Such an attitude inhibited the expansion of vocational schools and has remained, until recently, a serious obstacle to development programmes in Iraq (Ministry of Education, 1982, p 29).

Higher education is another area that received little consideration during the British occupation of Iraq. Two factors were involved in crippling the progress of higher education. One of them is that the British authorities

thought that it would be impractical to establish an ambitious scheme of secondary and higher education before establishing a solid foundation for primary education (Akrawi, 1942, p 139). Therefore, they felt that priority should be given to the development of primary education instead of opening higher educational institutions in Iraq. The British authorities preferred to keep higher education narrowly limited and insisted upon sending students abroad. This policy was "interpreted by the Iraqi nationalists as a deliberate attempt to block the country's progress in order to maintain indefinite British imperialism in Iraq" (Al-Rubaiy, 1972, pp 89-90). The second factor was the conflicting views of British and Iraqi intellectuals over the type of higher education to be provided. The latter advocated the introduction of higher education to be provided on philosophical and theoretical subjects which they thought were needed for that aspect of national struggle. The former stressed the need for more scientific and technical studies. Thus besides re-opening the College of Law in 1919, the only colleges and schools established were the College of Teachers in 1923 and the School of Engineering in 1925, also in 1927 the College of Medicine was opened. (Al-Hilali, 1959, p 238-240). However, these colleges did not attract many students, nor were they successful in achieving their goals of scientific and technical education.

In conclusion, the educational system developed in Iraq during the British administration was slow, even after the establishment of the national government in 1921 under British mandate, but it was a significant starting point which laid down the basis of the Iraqi educational system. Akrawi, 1942, points out that between 1915 and 1921 educational developments under the British regime played an important part in laying down the foundation of the present educational system in Iraq (p 81). In addition, the British determined educational policies which have greatly influenced later policies.

Table 24
Number of Schools, Teachers and Students in Iraq 1920-45

Year and Type of School	Primary Schools inc Kindergartens			Secondary Schools Intermediate and Upper Level			Teacher College and Primary School College			Vocational and Special Schools		
	No of Schools	No of Teachers	Student Total Enrolment	No of Schools	No of Teachers	Student Total Enrolment	No of Schools	No of Teachers	Student Total Enrolment	No of Schools	No of Teachers	Student Total Enrolment
Public School*												
1920-21	88	486	8001	3	34	110	1	-	91	1	-	80
1930-31	316	1325	34513	19	129	2082	3	-	386	1	-	140
1940-41	735	3525	500794	56	435	13969	4	86	2119	4	58	464
1942-43	788	3979	88864	60	470	12926	4	82	2091	6	63	804
1943-44	861	4340	89636	67	490	11191	5	88	1754	9**	82	1163
1944-45	878	4491	97558	71	539	11309	6	89	1641	7**	76	948
Private and Foreign Schools												
1944-45	81	607	19887	49	322	6818	-	-	-	-	-	-
Grand Total	959	5098	116902	120	861	18127	7	94	1344	7	76	948

* Public Schools: Schools run by the government ** Includes schools of health officials and school of nursing

Source: Mathewes R D and Akrawi M "Education in the Arab Countries of the Middle East"
Wisconsin: George Bonet Publishing Co, 1949, p 140

Despite all the obstacles, efforts to reorganise and unify the school system increased among Iraqis during the 1920s and 1930s and measures were taken to hand over educational responsibilities to the provincial authorities. A law was passed in 1922 to establish an educational council in the provinces but later this law was abolished and in 1926 a law was passed which recognised education as a governmental responsibility. One major piece of educational legislation was the "Public Education Law" of 1929. By this law the Ministry of Education became responsible directly for all matters related to public education, from administration, supervision, to the issuing of regulations governing the state primary schools as well as secondary schools and their public examinations. In 1931 the Language Law was passed. Though not confined to education, it stipulated that schools in the northern localities of Iraq should use Arabic for the majority of the students as the medium of instruction (Al-Rubaiy, 1972, pp 83-85).

In response to rapid changes in the country and the great need for education, the major act to reorganise and regulate education was the Public Education Law No 57 of 1940, in recognising that:

"The aim of education is to bring up a generation of healthy, enlightened and responsible citizens, it 'the act' prohibits the teaching of what may lead to the corruption of character, or of anything that may be of a disruptive or destructive nature" (Unesco, 1955, p 352).

This law provided the real structure of the educational system. It laid down the basic rules and codes by which the Ministry of Education should conduct education in Iraq. Educational levels were organised as primary, secondary and higher. They made primary schooling for six years, starting at the age of six, free but not compulsory, and made provision for public examinations at the end of the primary, intermediate and secondary levels (Ibid, pp 352-353).

Iraq adopted a single ladder school system with the passage of the "Public Education Law" of 1940. The basis of the system was organised as six years primary, three years intermediate and two years upper secondary, preceded by two years of kindergarten, followed by four or six years of university level education, and contained various professional and vocational schools at both the secondary and post-secondary level (Unesco, 1958, p 568).

The 1940 "Public Education Law" has made the administration of education highly centralised, with the Ministry of Education controlling all aspects of the educational system. By these legislations and regulations to expand education, it indicated very clearly that the government recognised the importance of education in building the nation. As can be seen in Table 25 the number of educational institutions and students increased remarkably during the period 1930 to 1945. Between 1930 and 1945 schools multiplied 3.7 times rising from 19 to 71; the number of teachers multiplied 4.1 times, from 129 to 539; and pupils multiplied 5.5 times, increasing from 2,082 to 11,309. As is the case in primary education, the increase of girls enrolled into secondary schools is comparatively greater than the increase of boys. This difference is due in part to the fact that girls' secondary schools were not opened until 1929-30, and then they were few in number, and in part to the fact that World War 2 caused less decline in the attendance of girls of this age.

Thus, out of a total of 71 secondary schools, there were 22 upper level leading to the final secondary school certificate. The remaining 49 schools were intermediate schools, 12 of these being connected with the upper secondary level to make complete secondary schools of five years.

Table 25Enrolment in Secondary Schools 1944-45

Secondary School	No of Schools			Enrolment		
	Boys	Girls	Total	Boys	Girls	Total
Intermediate Level	32	17	49	6579	2015	8594
Upper Secondary Level	18	4	22	2269	446	2715
Total	50	21	71	8848	2461	11309

Source: Mathew and Akrawi, 1949, p 145

Such expansion in education during the 1950s did not seem to have met the desired goal of general literacy. Al-Hilali, 1953, pointed out that only 8 per cent of the population in 1950-51 were able to read and write (p 264). A World Bank mission in 1950 reviewed the economic potential in Iraq and suggested a whole development programme; later in 1952 they reported that of 750,000 primary age children only 175,000 children were in schools receiving fundamental education (World Bank Report, 1952, p 62).

The same mission indicated that:

"The facilities and qualities of technical or vocational education are seriously deficient and adult education has been almost wholly neglected. Probably about 90 per cent of the men and over 95 per cent of the women remain illiterate. Moreover, educational concepts are far too narrow and too little related to the everyday problems of living" (Ibid, p 63).

Al-Rubaiy, 1972, indicated that "while one million elementary school age children were estimated in 1956-57, only 43% of this group attended. In addition a considerable drop-out rate was also in evidence" (p 126). The combined effect of these two factors considerably hindered the efforts made towards increasing literacy. Moreover, serious maldistribution existed during the pre-independence period between the rural

and urban educational development, and between the sexes, and this continued. The towns had about 60 per cent of the primary schools, while more than 70 per cent of the population lived in rural areas, and a faster rate of progress in enrolment was seen in the education of city girls (Qubain, 1966, p 210).

5.4 Curriculum Structure

After the introduction of the 1940 Public Education Law, which placed full control of all aspects of the educational system in the hands of the Ministry of Education, the primary school curriculum during this period continued to consist of a highly demanding range of academic subjects, and a book-centred approach, with little relevance in its content to the pupils' daily lives (Ibid, p 212). The Arabic language (see Table 27) continued to demand an appreciable portion, 29 per cent of the primary school curriculum. Geography and history, on the other hand, were offered during the last four grades only and consumed 9 per cent of the total curriculum time, while moral and civic instruction constituted only 2 per cent and were offered during the last three years only. However, the most important change in the primary school curriculum in the late 1950s was a "shift from world history and geography to Arab history and national geography" (Al-Rubaiy, 1968, p 73).

Table 26

Primary School Curriculum 1957-58

Subjects	1st	2nd	3rd	4th	5th	6th	Total	%
Religion	4	4	3	3	2	2	18	10
Arabic Language	11	12	10	10	6	6	55	29
English	1	1	1	1	6	6	12	6
Arithmetic	6	6	6	6	5	5	34	18
Science and Hygiene	2	2	2	2	2	2	12	6
Geography and History	-	-	4	4	4	4	16	9
Drawing	3	3	4	4	4	3	21	11
Physical Education	4	3	3	2	2	2	16	9
	30	30	32	32	32	32	188	

Source: Iraq, Ministry of Education report of Educational Progress, 1959-60, p 9

Secondary education during pre-independence times was intended theoretically to incorporate education into the academic programmes, because the purpose of secondary education, as the 1956 law indicated, was no longer limited to preparation for higher education for white-collar jobs to fill the government bureaucracy (Abdul-Hadi, 1958, p 29). This was done, as Abdul-Hadi explained, "by differentiating the programmes of the secondary schools into the academic, comprising literary and scientific programmes; the vocational, comprising technical, home economic and commercial programmes; and the agriculture" (p 30). The secondary school curriculum consisted of a broad and demanding cluster of courses (see Table 28). The scope of the curriculum, it was claimed, was to "suit the different aptitudes of youth and the needs of the country" (Qubain, 1958, p 215).

As a natural consequence of the general growth of education, a need for an adequate supply of primary and secondary teachers became obvious. Therefore, teacher education programmes underwent some modification but it was not until about 1935 that rural needs for teachers were recognised. This may be because not until this time were teachers' educational programmes "considered as a significant means for cultural development" (Al-Rubaiy, 1968, p 75). As a result of this awareness teacher education spread to provinces throughout the country (Qubain, pp 217-218 and Al-Rubaiy, pp 76-77). Thus, the country had thirteen teacher training colleges for boys and nine for girls in 1956-57 (Abdul-Hadi, p 26).

In conclusion, we can say that the educational progress in Iraq during the first three decades of the national administration did not reach the stage of providing the necessary level of education for all. This resulted in a high rate of illiteracy, which was about 92 per cent of the population in 1955-56 (Al-Hilali, 1958, p 265).

With the dawning of the Republican regime in 1958, the new government attempted to provide more educational opportunities

Table 27

Distribution of Lessons in Secondary Schools in 1957-58

Subjects	Periods per Week						
	Intermediate			Upper Secondary			
	1st Year	2nd Year	3rd Year	4th Year Lit	4th Year Scien	5th Year Lit	5th Year Scien
Religion	1	1	1	1	1	1	1
Arabic	6	6	6	7	5	7	5
English	6	6	6	7	6	7	6
History	2	2	3	4	-	4	-
Geography	2	2	2	2	-	3	-
Civics and Ethics	-	2	1	-	-	-	-
Study of Iraq	-	-	-	2	2*	2	-
Economics	-	-	-	-	-	3*	-
Arithmetic	4	2	-	-	-	-	-
Algebra	-	2	3	-	2	-	2
Geometry	2	2	3	-	-	-	3
Trigonometry	-	-	-	-	3	-	-
General Maths	-	-	-	2	-	2	-
General Science	6	-	-	4	-	-	-
Physics	-	-	3	-	3	-	4
Chemistry	-	3	3	-	3	-	3
Biology	-	2	2	-	4	-	5
Hygiene	-	-	2	-	-	-	-
Drawing	2	1	1	1	1	1	1
Child Education	-	-	-	-	2**	4**	-
Physical Education	2	2	2	2	2	2	2
Home Arts & Needlework	2**	2**	2**	2**	2**	2**	2**
Total Boys	33	33	33	32	32	32	32
Total Girls	35	35	35	34	34	34	34

* Boys ** Girls

Source: Iraq: Ministry of Education: Report on Educational Progress of Education in Iraq 1959-1960, p 10

Education Law No 59 of 1948 was passed abolishing Public Education Law No 57 of 1940. This change was followed by a number of educational regulations to reorganise the educational system, such regulations as Educational Regulation No 19 of 1958 and Education Regulation No 17 of 1967, so that by the beginning of the new political era, the country witnessed a new phase of educational progress.

5.5 Towards Building a National Educational System 1958-1985

The 1958 Revolution was more than a mere change of a particular government or the fall of a particular cabinet; it was the end of an era and the beginning of a tumultuous period in the history of Iraq.

In spite of a relative period of stability over most of the country in the year preceding the July 1958 Revolution (Penrose and Penrose, 1978, p 199), the feeling among the politically active students in the colleges and even secondary schools, and among a large part of the professional classes, including lawyers, doctors and artists, ranged from strong disapproval of, to almost fanatical hostility towards, the existing regime. Dissatisfaction and resentment towards the regime were also found within the armed forces which led to the formation of the free officers' society (Al-Qazzaz, 1969, pp 63-70).

Furthermore, the Iraqi intelligentsia were estranged from the oligarchical regime. Moreover, the intelligentsia attributed the evils of corruption, subservience to Western imperialism and Iraq's isolation from the mainstream of Arab thought to the regime (Lenczowski, 1962, p 298). On 14 July 1958, following the overthrow of the monarch, Iraq declared a republic, governed by a Council of Sovereignty. The republican period represented a new phase in educational development. It was characterised by a new dedication and commitment to universal education. Moreover, the importance of a national culture and public education was recognised. During the Qassim regime (1958-63) which was the first presidential period of the republican regime, the right of every Iraqi

citizen to culture and education was affirmed. Education was aiming at developing the talents of the Iraqi citizen and perfecting his personality. Schools were to be related to environment and education based on modern theories. Furthermore, education was to be common and available to all. The general characteristics of educational policy were based on; first, the Arabic heritage of civilisation and culture, and second "the need to acquire different kinds of culture and welcome the breeze of liberty and science . . . , regardless of the country of origin. (Republic of Iraq, 1960, pp 263-64).

The main aim of this policy was to provide general education and to inculcate a sense of social responsibility and patriotism in youth. It was asserted that it was "highly essential that education and culture should stress this fact (the heritage) in the mind of the younger generation in order to link their modern education with their national heritage" (Ibid, 1960, pp 262-64). Therefore, education was made an important instrument in developing feelings of national identity and awareness of Arab cultural heritage in order to raise "a generation believing in God and country", and foster consciousness of Arab religious values (Khadduri, 1969, p 302 and Ministry of Education 1964 and 1967, pp 116-19). Thus, secularisation in education was not yet adopted, and Islam remained an integral part of the Iraqi national culture. To inculcate such values in schools some books were rewritten and curricular changes were made with these objectives in mind. For example, a new course called "social and national education" was added to the primary school curriculum (Ministry of Education report, 1960, p 9). This subject commanded almost 11 per cent of the total curriculum in the fourth year of primary school, and about 16 per cent in each of the fifth and sixth years of the same level.

The subject matter taught in primary and secondary schools during the republican era remained mostly academic and students in rural areas in particular continued to find it difficult to grasp the subject matter which was not related to particular skills (see table 27).

However, there were some efforts to introduce extensive revisions of the primary and secondary curricula with the intention of introducing vocational subjects and to make the curriculum more manageable (Ministry of Education, 1960, p 1). Table 28 demonstrates the demanding range of subjects and the extent of the required curriculum of primary schools, and in spite of the fervour for nationalism during the republican regime, the secondary school curriculum showed a slight reduction in the number of hours allocated to the study of history, geography, civics and ethics, and the study of Iraq (see Table 29). In 1968 a further structural change initiated a three year course of study in the preparatory stage (secondary high school), thus making the overall secondary school programme six years in length. A successful graduate from the intermediate level could also choose to enter one of the three year programmes of either the primary school teacher college, the school for health officials or the nursing schools. A male student might also enter the preparatory police school, or the preparatory school of religion, each of which offers a course of two years' duration.

One of the most characteristic features of education since 1958 has been the continuous growth in the number of schools, teachers and students. Table 30 indicates that the number of students enrolled in primary school has increased tremendously between the period 1957-58 to 1979-80. However, not every eligible child of primary school age had the opportunity to enrol, until 1976 when the "Compulsory Law" was implemented which resulted in high increases in the number of students enrolled in primary schools (Table 30). Besides the increased number of students, the number of school buildings and teachers increased as well. Most primary school teachers graduated from "Primary School Teachers College", which is officially rated as equal to secondary preparatory.

Secondary schools experienced very significant growth in the number of students, teachers and school buildings between

Table 28Distribution of Lessons in Primary Schools During the Republican
Period 1960-1961

Subjects	1st	2nd	3rd	4th	5th	6th
Religion and Koran	2	2	2	2	2	2
Arabic Language	10	10	8	8	6	6
Arithmetic and Measurements	6	6	6	6	5	5
English Language	-	-	-	-	4	4
General Life Information	4	4	6	-	-	-
Object Lesson and Hygiene	-	-	-	3	3	3
Social and National Education	-	-	-	3	5	5
Drawing and Manual Art	3	3	3	3	2	2
Physical Education	2	2	2	2	2	2
Singing	1	1	1	1	1	1
Home Economics	-	-	-	-	2	2
Grand Total	28	28	28	28	32	32

Source: Iraq: Ministry of Education, Report on Education
Progress of the Republic of Iraq 1961-62, p 9

Table 29.Secondary School Syllabus During the Republican Period1960-1961

Subjects	Periods per Week							
	Intermediate			Preparatory		5th		5th
	1st year	2nd year	3rd year	4th year	4th year Lit Scien	5th year Lit	5th year Scien	
Religion	1	1	1	1	1	1	1	
Arabic	6	6	6	7	5	7	5	
English	6	6	6	7	5	7	5	
History	2	2	2	3	-	3	-	
Geography	2	2	2	2	-	2	-	
Civics and Ethics	1	1	1	-	-	-	-	
Study of Iraq	-	-	-	1	-	1	-	
Economics	-	-	-	2	2	2	2	
*General Maths	5	5	5	3	-	3	-	
Algebra	-	-	-	-	2	-	2	
Geometry	-	-	-	-	-	-	3	
Trigonometry	-	-	-	-	3	-	-	
General Science	3	-	-	2	-	2	-	
Physics	-	-	3	-	3	-	3	
Chemistry	-	3	-	-	3	-	3	
Biology	-	2	-	-	4	-	4	
Hygiene	-	-	2	-	-	-	-	
Drawing and Fine Art	2	2	2	1	1	1	1	
Physical Education	2	2	2	1	1	1	11	
Home Economics*	2	2	2	2	2	2	2	
Total Boys	30	32	32	30	30	30	30	
Total Girls	32	34	34	32	32	32	32	

* Girls only

Source: Iraqi Ministry of Education Report on Educational Progress of the Republic of Iraq 1959-60, p 11

* General Maths at fourth and fifth year of scientific-branch divided into Algebra, Geometry and Trigonometry

Table 30.Development of Primary Education (Schools, Teachers and Students) (1958-1984)

Years	Schools	Teachers	Students		
			Boys	Girls	Total
1958-1959	2416	16069	388013	130008	518021
1960-1961	3679	25046	556442	204021	760463
1964-1965	4438	36020	657414	268529	925943
1969-1970	5176	48307	736177	304793	1040970
1970-1971	5616	49822	786356	318524	1098880
1974-1975	7194	57621	1030547	493408	1523955
1975-1976	7595	69812	1130387	491217	1621604
1979-1980	9460	92603	1209133	900049	2109182
1980-1981	11280	93917	1400018	1212314	2612332
1981-1982	10816	98422	1397575	1239448	2637023
1982-1983	10223	107364	1400517	1214410	2614927
1983-1984	10138	112428	1465483	1233059	2698542

Source: 1. Iraqi Ministry of Education, "Report on Educational Development", Annual Report: Educational Statistics 1964, 1965 and 1976-1980, p 50 and p 81.

2. Iraqi Ministry of Planning, "Statistical Handbook of the Republic of Iraq for the Year 1958-1980" p 198

1950-51 and 1979-80 (see Table 31). However, not all secondary schools experienced such growth in the enrolment of students. Such growth happened in schools located in the big cities only like Baghdad, Basrah and Mousel. This increased the teachers also, but the high concentration of teachers in the three largest cities leaves the other parts of the country with proportionally fewer secondary school teachers.

However, the growth of secondary school student enrolment was not an equal expansion into the different fields of studies. The different levels and areas of education closely parallel the stratification of occupations on the basis of social prestige. The majority of students were enrolled in scientific and literary academic areas of study. This was due to the negative response from Iraqis towards any part of the educational system besides academic study. It has been said that such an attitude was first inherited from the Turkish time and that in the minds of most Iraqis, technical education was equated with the bazaar workshops (Al-Rahem, 1977, p 34). Unfortunately, this bias against technical education was reinforced as succeeding generations continued to associate vocational education with low prestige, poor quality and limited job opportunities (see Table 32). Naturally, such a reputation inhibited the expansion of vocational schools and has remained until recently a serious obstacle to development programmes in Iraq. To make the whole situation for these schools worse was the fact that not all the graduates of vocational schools took up jobs related to their training. The majority showed little desire for craftsmanship and took up jobs related to their training. Because vocational training was viewed as a schooling stage, which in addition to the provision of free education, lodging and food, could help students evading compulsory military service (graduates of secondary vocational school were exempted from services in the 1950s and 1960s) (Al-Tamimi, 1983, p 94), but since the late 1960s and 1970s when manpower plans (foreign and Iraqi) revealed appalling

Number of primary school students 1958-1959/1983-1984

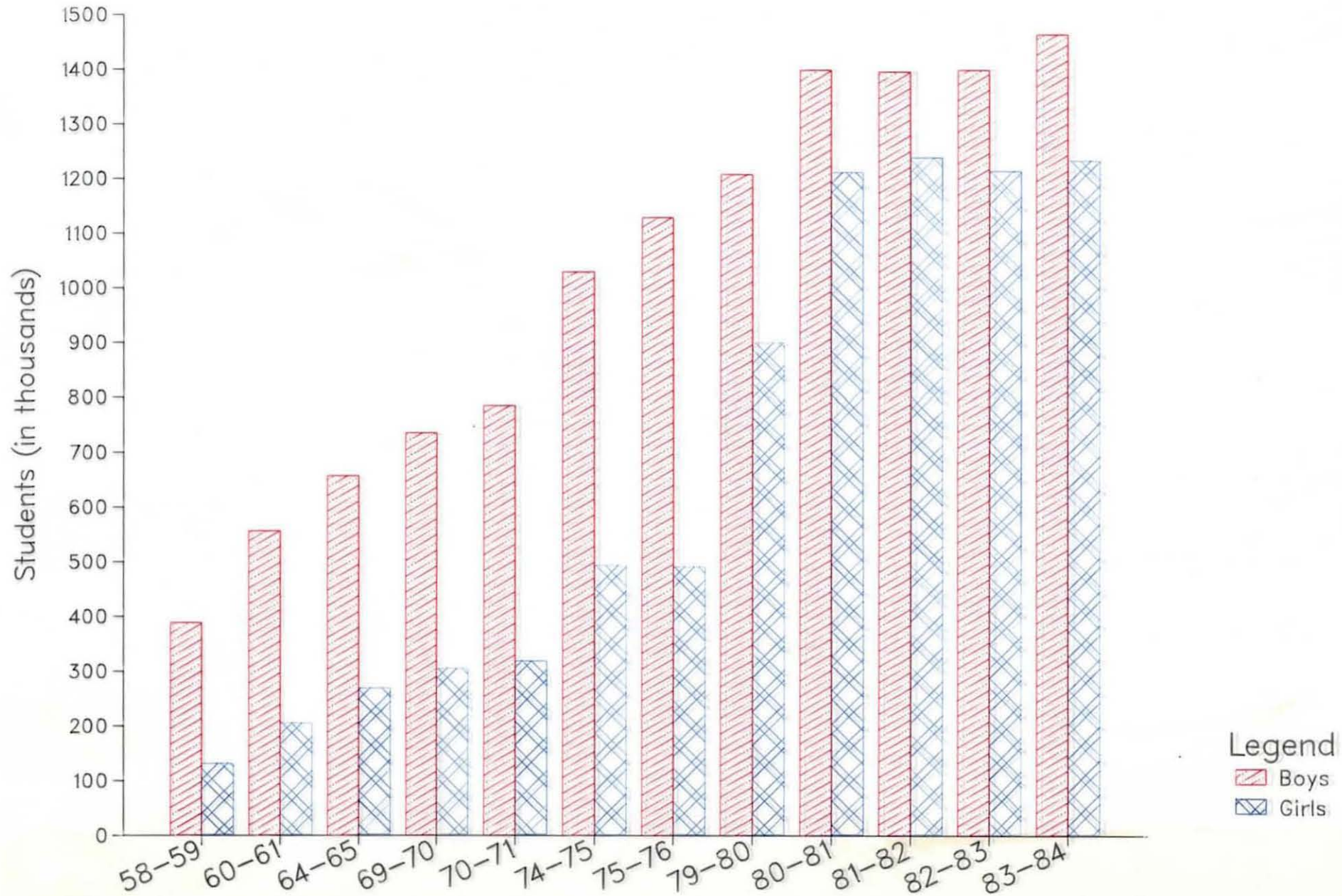


Chart 7

Increase of primary school students 1958-1959/1983-1984

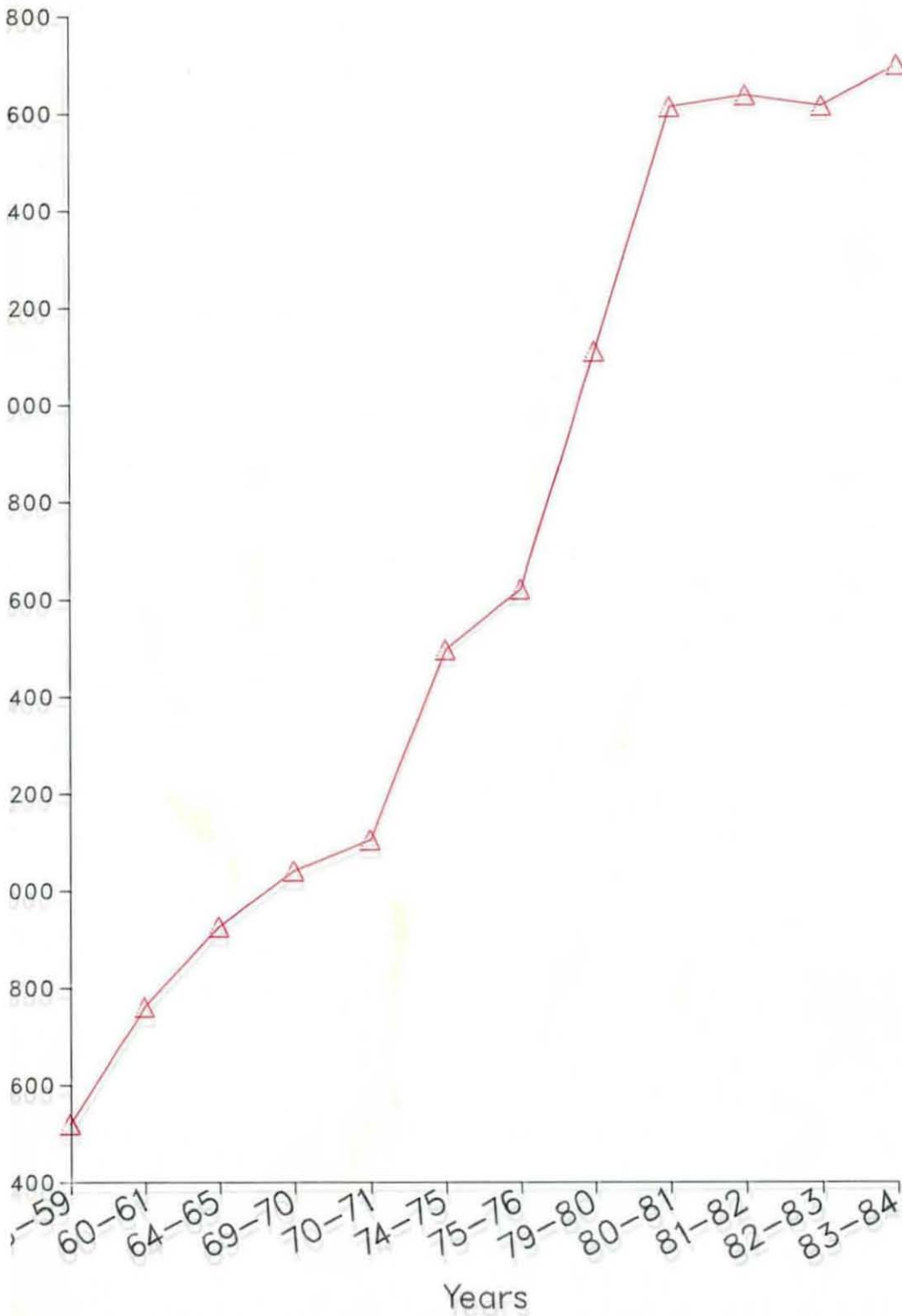


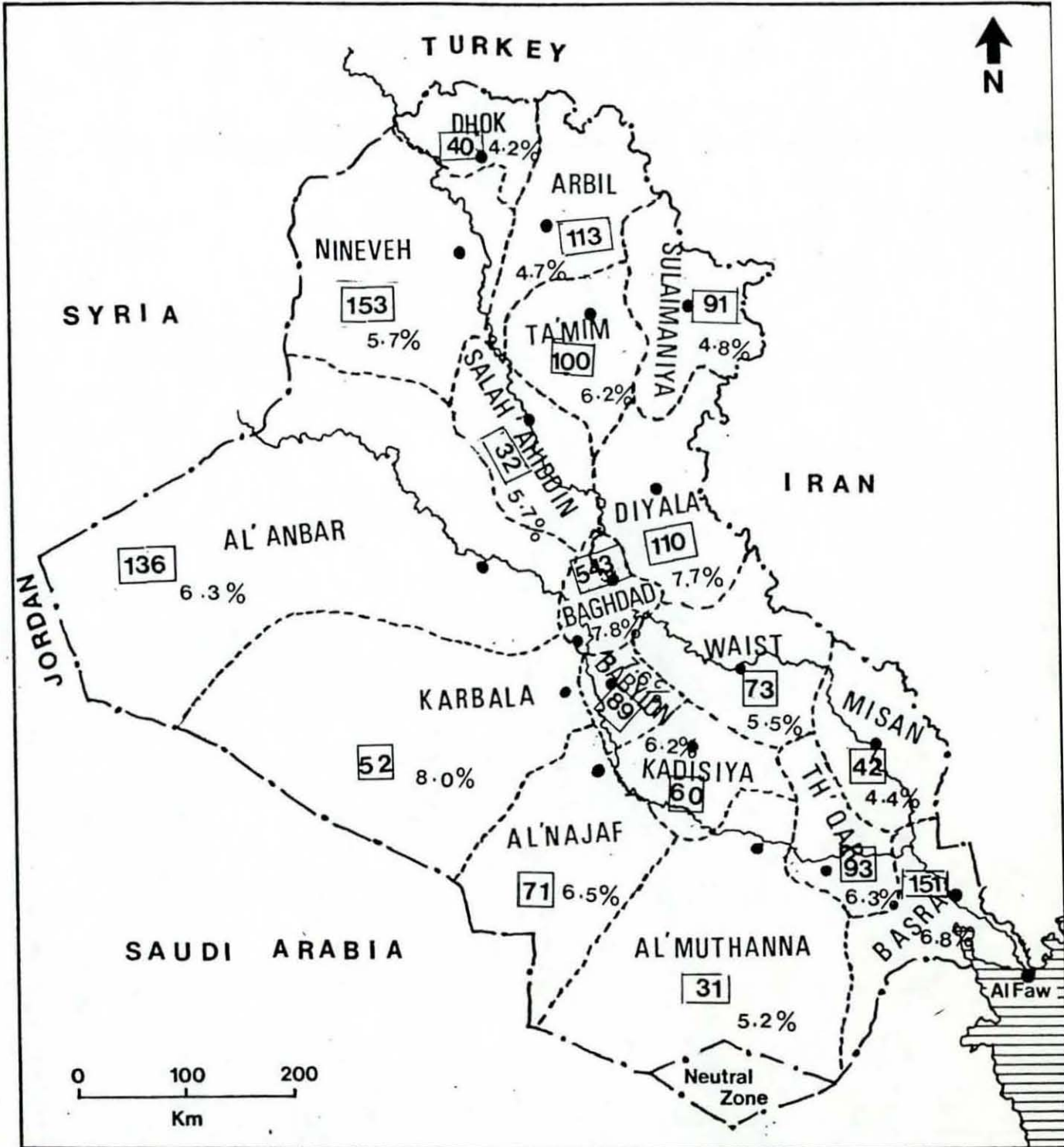
Chart 7

Table 31

Development of Secondary Education (Schools, Teachers and Students) 1968-69/1983-84

Years	Schools	Teachers	Students		Total
			Boys	Girls	
1950-51*	90	999	13500	9206	22706
1960-61*	287	3588	79184	27474	106658
1968-69	840	9378	215144	70577	285721
1969-70	860	10114	216971	86069	302040
1974-75	1315	18483	325884	131879	457763
1975-76	1133	16862	356788	141325	498113
1979-80	1774	28002	626588	271112	897700
1980-81	1891	28453	646478	303664	950142
1981-82	2042	31253	686159	332450	1018609
1982-83	1977	32556	636930	334897	971827
1983-84	2027	36144	630523	331480	962003

- Sources: *1. Saad Abdul-Bakey "Relationship of Secondary Education and Higher Education in Iraq" Table (1), p 113, 1971
2. Iraq, Ministry of Education, Department of Educational Planning: "The Development of Education in Iraq 1979-1980" No 156, 1982, pp 33-43
3. Ministry of Planning/Central Statistical Organisation "Annual Abstract of Statistics", Table 7/11, p 227 (1971-72/1980-81/1983-84



Map 4 - Illustrates the number of secondary schools in each province of Iraq together with the percentage of secondary school students to the population of each province.

Source: Constructed from Annual Statistical Report 1983-4
Ministry of Planning, Iraq

Increase of secondary school students and teachers 1968-1969/1983-1984

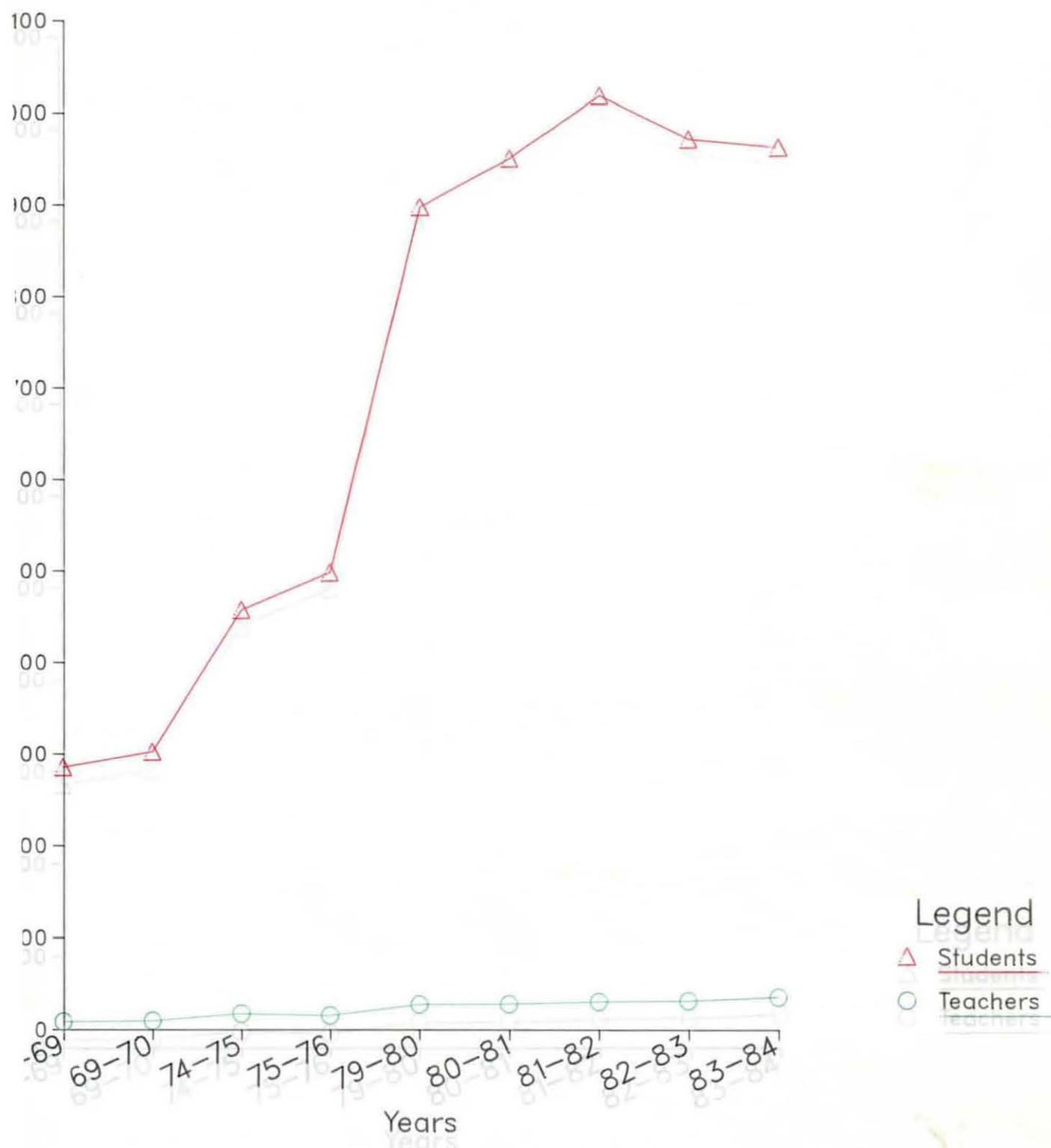


Chart 8
Chart 8

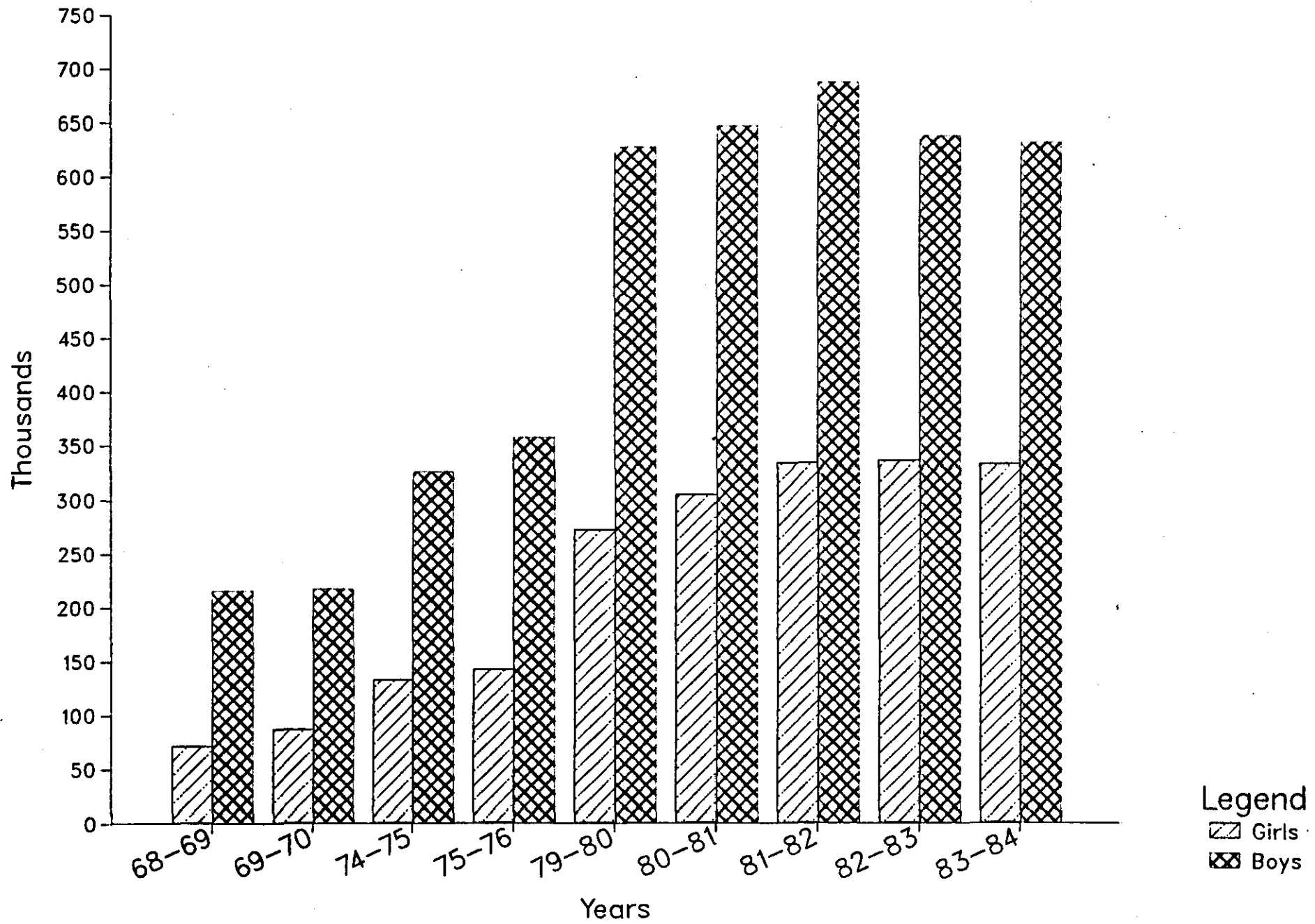


Chart 9

discrepancies between manpower supply and demand at the national level, vocational has been put under unprecedented political pressure to increase their output (Table 32).

Table 32,

Development of Vocational Schools and Graduation 1932-3/1955-6

Year	Enrolment	Graduates
1932-1933	183	21
1942-1943	254	18
1952-1953	491	55
1955-1956	808	92

As a consequence, vocational education multiplied student inputs but physical facilities and other resources had not been adequately prepared to cope with changing circumstances.

In conclusion, the expansion of the educational system continued, mainly during the early years of the republican regime; from the elitist structure it inherited from the Monarchical period, the republicans attempted to make education a truly national system. No major structural changes were introduced, but the real attempt being made by the republican rulers was that education should be seriously recognised as the inherent right of every citizen, and they affirmed the responsibility of the government. While the educational system was highly selective, based on intellectual standards, during the Monarchical period, the republican regime attempted to make it more egalitarian. They tried to put education at the service of every citizen.

Table 133

Development of Formal Secondary Vocational Education (Schools, Teachers and Students) 1958-1959/1983-84

Years	Schools	Teachers	Students		
			Boys	Girls	Total
1958-59	39	449			11823
1964-65	38	647	3893	3495	7817
1969-70	48	1013	7132	2862	9994
1974-75	71	1508	15808	5225	21033
1978-79	106	3243	36013	12173	48186
1979-80	127	4130	38915	15111	54026
1980-81	143	4150	41817	15018	56835
1981-82	148	4223	37003	16200	53203
1982-83	157	4733	48589	17794	61383
1983-84	176	5115	54684	22794	77433

Sources: Ministry of Education, "Annual Statistical Reports" for the respective years.

NOTE: Up to 1975 the table includes "Home Economics School" which was abolished in that year. Since 1976, secondary vocational education has included: secondary vocational technical, agricultural and commercial schools

5.6 Administration and Organisation of the Educational System in Iraq

Since its independence, Iraq had been operating with a system of centralised state functions including the educational, political and economic fields. The subsequent Iraqi governments devoted increasing attention to their responsibilities in not only general education but also higher and specialised education. Although radical changes occurred in government forms and political attitudes following the Iraqi Revolution of 14 July 1958, nevertheless the concept of centralised government control of the nation's affairs continued to prevail as a necessity for the state to protect public interest and individual rights and to achieve national unity.

Al-Rubaiy writes:

"Throughout the Republican regime special emphasis was laid on the cultural field to extend educational services to all sections of the country. Education continued to be a governmental responsibility, consisting of a centrally organised three stage system and Western influences continued to be noticeable in both structural organisation and curricula contents. The Revolution recognised the right of education for all citizens." (1972, p 152)

Article 33 of the Interim Constitution of 1964 stated that education is the right "of all Iraqis, guaranteed by the state through the construction and expansion of different types of schools, universities and cultural and educational institutes" (Ministry of Education, 1968, p 11). Article 34 emphasised state supervision of education and pointed out that "education affairs shall be organised by law" (Ibid, p 14). Nevertheless, this centralisation may still be changed, in 1974-75 attempts had been made to grant local administrative autonomy to the Kurds in the northern part of the country, to be practised within the framework of the legal and political unity of the Republic

of Iraq and with education of all levels subject to the general educational policy of the state.

Currently education responsibilities in Iraq are split between two central ministries; the Ministry of Education and the Ministry of Higher Education and Scientific Research, which was established in 1970. The Ministry of Education has a direct control over secondary education (academic and vocational), fundamental education and literacy programmes.

The administration of pre-primary education is the responsibility of the Ministry of the Interior through its Department of Local Administration. All funds for three programmes are administered at the provincial level by the local Director of Education.

Iraq is administratively divided into 18 provinces and in the centre of each province there is a Director of Education (Baghdad has two Directors of Education) who is responsible to the Ministry of Education for all such professional aspects as related to curricula, text books and supervision (see Chart).

Tertiary Education and Scientific Research (see Chart 2) also conducts international educational and cultural relations (Ministry of Higher Education, Law No 132, 1970). Thus, the primary functions of the Ministry of Higher Education are:

"Establishing guidelines for long term planning of higher education in accordance with the national policy, and assisting and encouraging higher studies and scientific research" (Ministry of Education, 1971, p 12)

Moreover, a Council of Higher Education and Scientific Research was founded in 1970 to be the highest academic authority for planning and co-ordinating higher education and scientific research. Whereas the curricula and other aspects are organised and controlled at the central level

by the Ministry of Education with regard to primary, secondary (academic and vocational) education, the universities and post-secondary technical institutions are autonomous in most technical and professional matters. Prior to 1970, the structure of higher education was based on large numbers of colleges and institutes lacking inter-relationship. The present basic structure of tertiary education is comprised of six universities, three of which are situated in Baghdad, the capital of Iraq. These are the Baghdad University, Al-Mustansiriya and the University of Technology (established in 1975). The latter includes a Department of Technical Teacher Training. The other three universities are located in the provinces of Arbil, Nineveh (Mousel) and Basrah (see Chart .).

The Ministry of Higher Education Foundation for Technical Institutes (established in 1972) is responsible for the two calendar year post-secondary technical institutes which award a technical diploma for technicians in a variety of specialities. Admission to all universities and technical institutes, at the post-secondary level, is organised by the Central Admissions Department of the Ministry of Higher Education, whereas the non-formal institutions deal at the institutional level with applications to their programmes of study and training.

Despite the diversity of the administration of education as described above, all decisions on policy matters and planning are made by the central government in the appropriate Ministry.

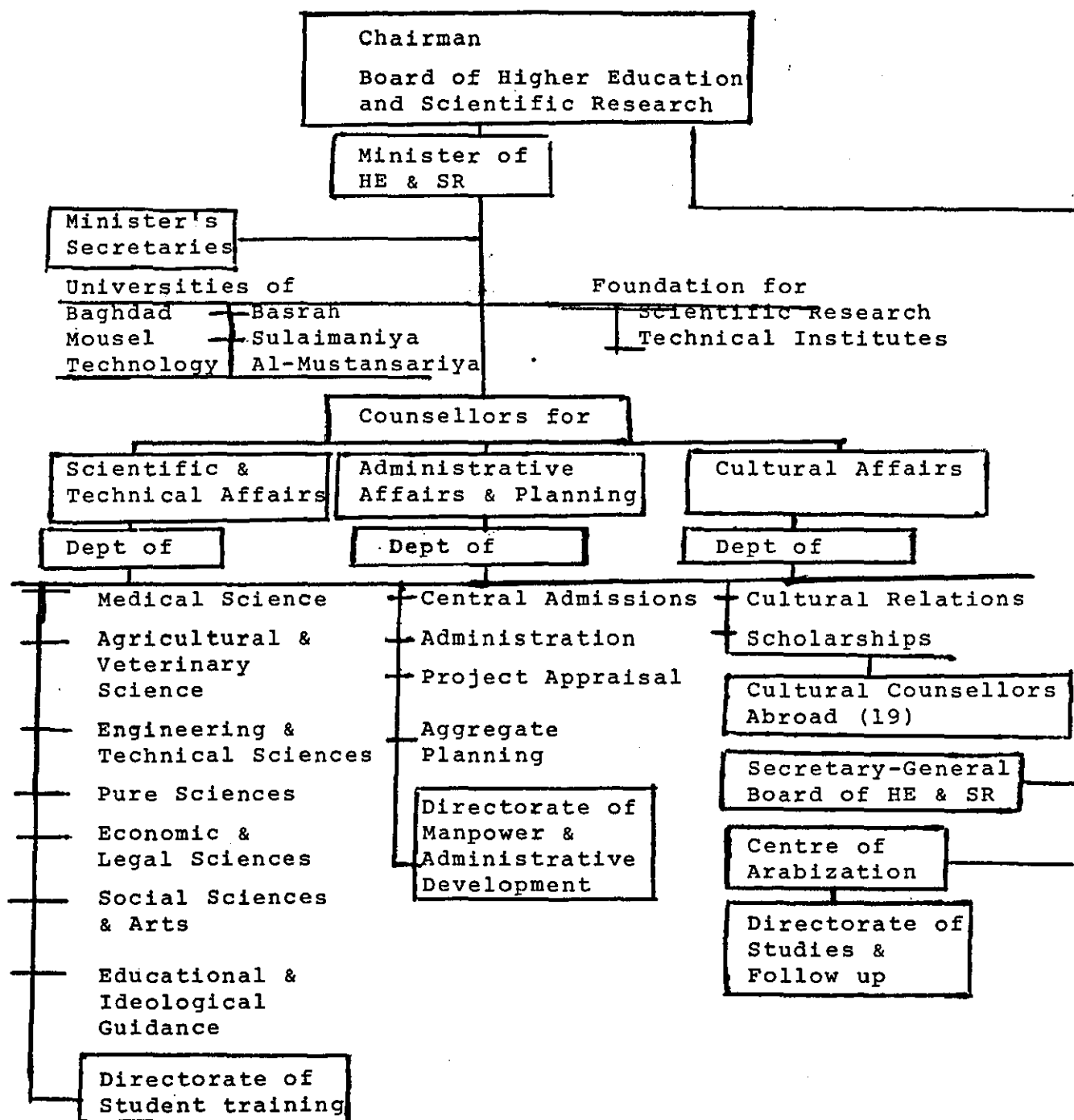
5.6.1 Structure of the Educational System

As shown in Chart 14, the structure of the formal education system in Iraq is organised on the basis of 6 + 3 + 3 + 2 or 4 to 6.

After a two-year period in kindergarten (wherever available), children are admitted at age six to the six year primary schools, grades 1 to 6. Intermediate education, which

Chart 10

Organisation Chart - Ministry of Higher Education and
Scientific Research (June 1977)



Source: Ministry of Education Report to the 36th Geneva Conference, 1977

Note: The Board of the Higher Education and Scientific Research includes Ministries of Higher Education, Education, Planning and is chaired by a member of the Revolution Command Council.

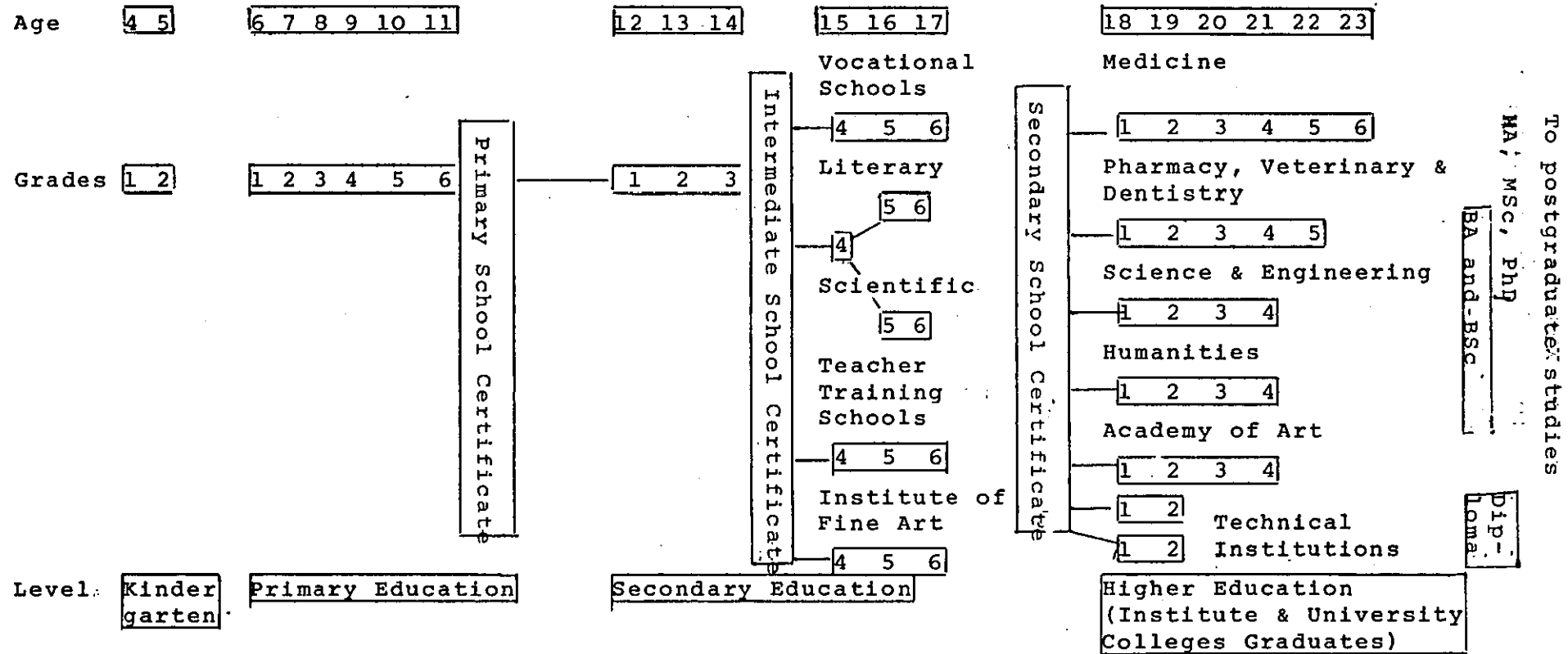
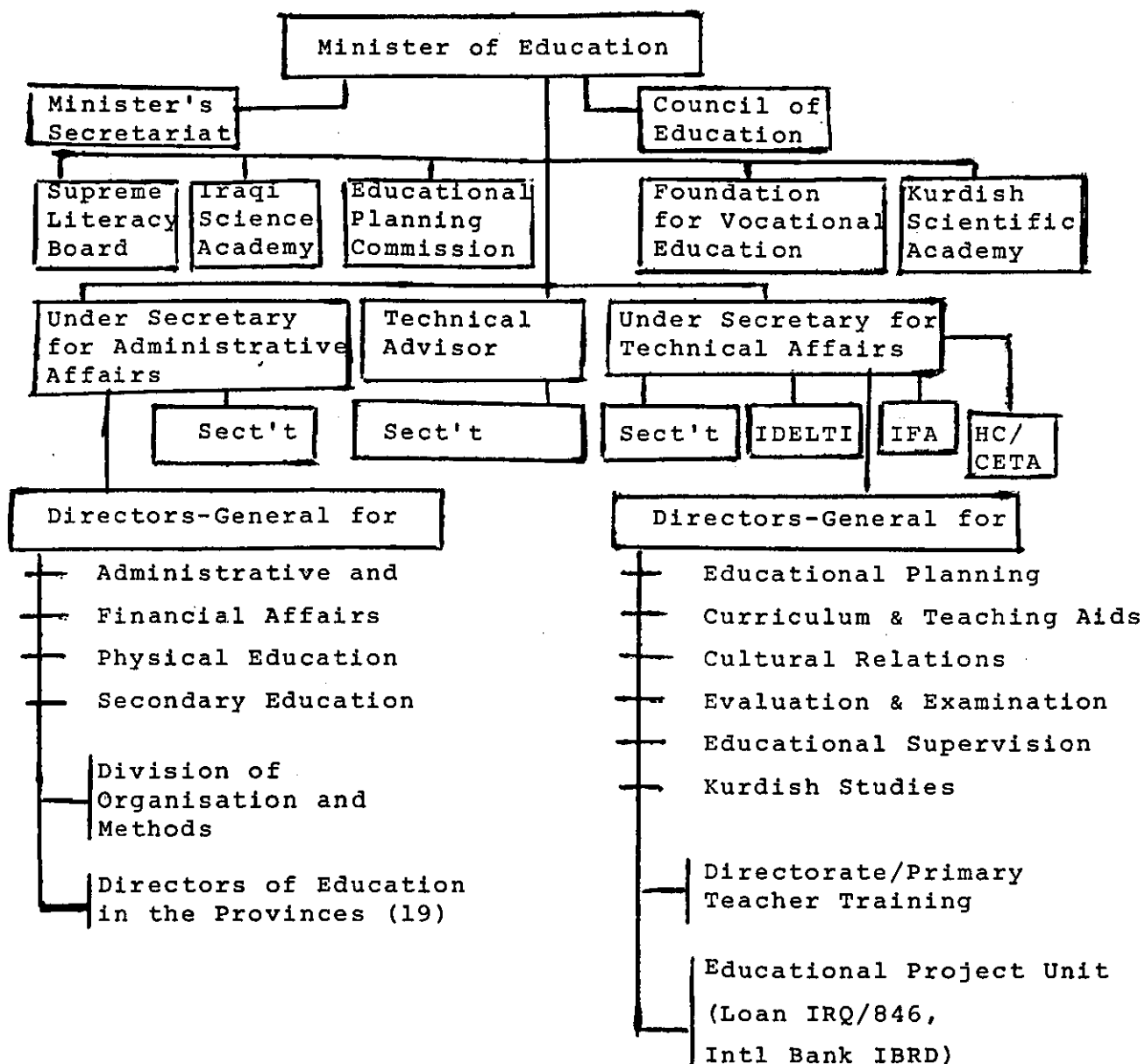


Chart 11

Structure of the Educational System in Iraq

Source: "Education under the Wing of Revolution" Ministry of Education, Dept of Educational Planning, Baghdad, 1978, p 72

Chart¹²

Abbreviations used: IFA = Institute of Fine Arts
 IDELTI = Institute for the Development of English Language Teaching in Iraq
 HC/CETA = High Committee for the Development of Curriculum, Examination and Teaching Aids

Source: Ministry of Education Report to the 36th Geneva Conference, 1977

represents the lower secondary stage, is of three years' duration. Higher secondary education is divided into two main sections; general (or academic) and vocational. The general academic stream, which was lengthened from two to three years, effective from 1969-70, provides one year of general academic education followed by two years' specialisation in either arts or science subjects, i.e. literary or scientific streams. The vocational section of secondary education comprises technical, agricultural, commercial and home economics. The latter, which was open to girls only, was suspended in 1971-72 to divert women to the wage-earning sectors of the economy and to encourage co-education in the secondary vocational schools. Since the mid 1960s vocational education, which used to accept primary school leavers, has been restricted to take just intermediate school leavers.

Each of the three levels of education, i.e. primary, intermediate and all types of upper secondary education, traditionally finish with a baccalaureate examination which is conducted centrally by the Ministry of Education. The Baccalaureate Examination for primary schools was usually taken by students of grade 6; it was abolished in 1976 but returned in 1982. No certificate of an institution is recognised by the Ministry of Education unless students are subjected to the Ministry baccalaureate examinations.

Except for the Ministry of Higher Education technical institutes (of the Foundation of Technical Institutes) which provide technicians after two years of post-secondary education, the majority of college courses are of four year duration. Pharmacy and medical studies are, however, of five to six years' duration; their examinations and other assessment procedures are conducted by their own faculties and departments. All studies of the formal education system are of full-time type. Sandwich courses or part-time courses are not available in Iraq.

5.6.2. Educational Expenditure

Throughout the historical background of the educational system in Iraq, formal and non-formal education has been tuition free at all levels. However, in compliance with the socialist ideology of the 17 July 1968 regime, the government has assumed entire responsibility for financing the educational system at all levels and the very few private or semi-private schools and colleges which used to charge fees were nationalised with effect from the academic year 1974-75 (Revolution Command Council Decision MQ/1/4/2261 dated 9.5.1974 to abolish private education in Iraq). The state has also become responsible for supplying free of charge books, stationery and other materials for all students of various levels of education (Revolutionary Command Council Decision No 102 dated 7.2.1974 regarding 'Free of Charge Education').

Expenditure on education is derived from the central government budget, allocation has been raised constantly as can be seen in Tables 15 and 16. Educational expenditure has increased during the period 1958 to 1975 tremendously. Recurrent expenditure on education in the post-1968 period has constituted between 18.2 per cent and 25.3 per cent of recurrent national expenditure and between 4 and 7 per cent of GNP. Primary education has been absorbing between 55-60 per cent of the recurrent education budget, compared to only 25 per cent for general academic secondary education and less than 15 per cent for higher education (Ministry of Education, 1976-77, Table 7/11).

Table 34
Education Budget, as Per Centage of National Budget, 1958-9
to 1970-71

Years	Educational Budget; in Iraqi Dinars*	Per Centage of Educational Budget to National Budget
1958-59	26,189,133	Not available
1964-65	34,750,000	Not available
1968-69	54,694,000	25.2
1969-70	56,847,690	21.2
1970-71	61,601,740	20.7

*Iraqi Dinar = \$2.8

Sources: Al-Rubaiy, 1972, "Nationalism and Education", p 156
 Unesco: International Yearbook of Education, Vol 28
 (Geneva: International Bureau of Education, 1966)
 p 170; and 1968, p 238
 Iraqi Ministry of Education "Education in Progress"
 1972, pp 15 and 16

Table 35

Education Allocations and the General Budgets (in Iraqi
Dinars) 1971 to 1983

Years	Regular Budget Iraqi Dinars*	Educational* Allocation	Per Centage of Education
1971-72	333,750,960	66,096,444	19.8
1975 Apr-Dec	773,492,000	119,731,000	15.5
1979	3,283,265,000	185,216,000	5.6
1980	5,240,000,000	298,718,000	5.7
1981	6,742,808,000	272,125,000	4.03
1982	7,700,000,000	182,171,000	2.4
1983	5,350,000,000	126,988,000	2.4

Sources: Ministry of Education "Annual Report, Educational Statistics", 1979-80, Table 7/8, p 283

Ministry of Planning, Iraq "Annual Abstract of Statistics", Central Statistical Organisation 1980, Table 6/1, p 139

* Unfortunately it has not been possible to ascertain any subdivision of the educational budget.

5.7 Higher Education

There was no formal organised university in Iraq prior to 1958. Higher education was provided in separate colleges which were located mainly in Baghdad. The idea of establishing a modern university in Iraq was first suggested by the Council of Ministers in 1921 (Akrawi, 1949, p 339). In 1943 and 1945 other attempts were made to establish a university in Iraq, but these attempts did not progress beyond producing the draft of a charter for a proposed university.

Thus, "separate colleges and institutions were founded in Iraq as the need in each respective field became pressing" (Qubain, 1966, p 220), and not until 1955 did the parliament pass the Law of the University of Baghdad in order to incorporate into one university the already existing institutions of higher education (Akrawi, 1969, p 339). Legally, the University of Baghdad has existed since 1958. When established, however, the university was not set up to consider the immediate needs and prospective development of the country. Instead it was a result of combining, under one administration, the separate colleges which had been established at different times, by different governments, to serve different purposes.

This step, nevertheless, was a starting point for the systemic organisation and development of higher education so badly needed by the country. To meet the evolving demands for higher education and the pressing need for professionally trained university graduates - teachers, physicians and engineers in particular - five colleges were opened in Mousel between 1959 and 1966 (Mousel University Catalogue, 1974, p 11), and four colleges in Basrah in 1964 (Basrah University Catalogue, 1974, p 9), under the jurisdiction of the University of Baghdad. In 1967 these colleges became separate universities - the University of Mousel and University of Basrah (Akrawi, 1969, p 339). At the same time, the University of Baghdad, along with a newly opened university in Baghdad, were extensively expanded (Mansfield, p, 1973, p 329). Partly because of political reasons, the University

of Al-Sulaimaniyah was established in 1968. This was followed by the foundation of the University of Technology in 1975 (Al-Gumhuriyah supplement, 1977, p 8). In this sphere of higher education, the Foundation of Technical Institutes was founded in 1972 under the jurisdiction of the Ministry of Higher Education and Scientific Research (Technical Institute, 1977, p 9).

Higher education in Iraq developed primarily as public institutions. In the late 1960s, Akrawi reported that "total enrolment in public higher institutions far outweighs that in private institutions, to the proportion of 10:1" (Akrawi, p 339). Even though a few institutions began as private, eventually all higher educational institutions became public. Al-Hikmah University, founded by American Jesuits in 1956, was made public and merged with the University of Baghdad in 1968/69. Al-Mustansiriyah University, Al-Sha'b University and Basrah College of Commerce all were established in 1963-64 as private institutions. In 1974 all private educational institutions became public when the government abolished the tuition fees making educational facilities at all levels of education into absolutely free institutions (Al-Bazzaz, 1979, p 7).

However, in spite of the accelerating evolution of higher education during the last fifty years, in regard to the number of institutes, students, teachers and graduates, and expenditure, the product of such growth remains incompatible with the requirements of recent developments in the country. One of the most difficult problems the country faces today is the lack of trained people who are able to assume the burden of developmental responsibilities (Ministry of Higher Education, 1971, p 19). This can be attributed chiefly to the educational policies which were not well-established to cope with the various problems of higher education. El-Ghannam stated in 1971 that one of the serious problems of education in the Arab region is that "universities have become crowded, staff and equipment are inadequate, and it is proving difficult to cope with social and economic changes and the surplus of graduates,

particularly in literary specialisation" (p 18). He emphasised that "in all cases, the major difficulty is that plans for the expansion of higher education have not yet been integrated into plans for economic development or adjusted to present and future needs for highly skilled manpower. As a result, the economic benefits are not commensurate with the high expenditure devoted to this level of education" (Ibid, pp 18-19).

There have been efforts to implement new plans aiming at the reformation and modernisation of higher education in Iraq. The system of higher education, however, remains plagued by serious deficiencies which have contributed to the retardation of achieving national development goals. It is the purpose of this analysis to examine the general trends and problems of higher education in the country. Diagnosing the problems of higher education, is the main theme of this analysis, which must be recognised if future plans for education and developmental plans in the country as well as planning for manpower in demand, are to be formulated in order to promote national development and modernisation.

5.8 The Early Setting and Recent Reform

One feature that characterised higher education in Iraq is that institutions of higher education in the country are based on Western models "because of the prevalence of the Napoleonic Code in the Arab World and because a large number of the teaching staff was trained in French Universities" (Qubain, 1966, p 51), the college of law at the University of Baghdad was patterned after the French model the College of Medicine, Art and Science, on the other hand, following the British style, and the Colleges of Engineering and Education, however, are a mixture, but the College of Agriculture followed the American pattern. Furthermore, such an amalgam is also reflected within different departments of the same college (Szyliowicz, 1973, p 319). According to Zahlan, "the faculties of under-

developed countries are isolated from each other. Though their contact with European and American institutions may be weak, it is nevertheless stronger than with each other" (Zahlan, 1973, p 304). This is probably also due to the increasing number of teachers who are graduates from various European and American institutions. Such a variety of experience could have represented an excellent opportunity to develop a healthier intellectual environment if the salient features of each pattern were integrated and adapted to local conditions. Instead, and may be because of, the lack of communication and the absence of co-ordination, complexities and obstacles have dominated higher educational institutions throughout the Arab World, and in Iraq as well. According to Szyliowcz.

"The result of such diversity has not been to develop a unique model genuinely applicable to conditions in the region. First, curricula and text remain based almost entirely on European or American models and seldom include any attempt to relate the material to contemporary national problems. Second, little agreement exists even within the same institution on such matters as degree requirements, curricula organisation or broader questions involving the goals of university training. As a result faculties which follow the American model tend to emphasise general education and those based on European models a much greater degree of specialisation and concentration. This leads naturally to the third problem area, the isolation of one discipline from another. By and large requirements are fixed and inflexible so that a student in one faculty finds it practically impossible to change to another" (1973, p 319; see also Qubain, 1969, pp 51-53).

Thus, the structure of higher education in Iraq has resulted in "a large number of colleges and institutes of different levels ... having practically no inter-relationship.

because of this, there were many unnecessary duplications, discrepancies and superfluous needs for (a) teaching staff" (Unesco, 1971, p 8).

The authorities realised that such a complex state of confusion in the country's system of higher education does not correspond with the real needs of national development. Therefore, in 1969, the government introduced one of the most decisive academic and administrative reforms of the system of higher education. In its Resolution No 342 of 1969, the Revolutionary Command Council abolished all colleges and institutions of higher learning and organised a new structure of higher education with a strong intention to integrate higher education with national development (Ibid, p 9). Currently the institutions of higher education are as follows: The University of Baghdad (1958), the University of Al-Mustansioiyah (1964), the University of Mousel (1967) as well as the University of Basrah (1967), the University of Al-Sulaimaniyah (1968), the Foundation of Technical Institutes (1972), the University of Technology (1974) and the University of Al-Kuffa which was established in 1980. Furthermore the Ministry of Higher Education and Scientific Research was established in 1970 to meet the crisis of higher education. This step was intended primarily to implement national policy regarding higher education through planned programmes.

Although higher education in Iraq has developed tremendously during the last two decades, it remains characterised by significant deficiencies regarding the achievement of national development goals. In his analysis of the situation of higher education in Iraq, the Unesco consultant, A K Rybnikov, concluded that "the problem of planning is central and urgent" (1971, p 9). It is true, as Szyliowicz states, that "to structure an educational system along modern functional lines ... involves more than planning" (1973, p 323). Because "even if the appropriate decisions are made, societal and cultural degrees of political power and skill will be required in overcoming latent and overt opposition to change and to deal with the popular demand for higher education" (Ibid, p 323).

However, decisions and plans for higher education in Iraq might be logically perfect, but practically questionable. Therefore, it should be realised that planning is only one factor which might help achieve progress, should be dynamic, flexible and integrative.

5.9 Trends and Problems of Higher Education

Higher education has been viewed in Iraq as an essential element for an individual's economic and social advancement, "Although the desire for knowledge per se is no doubt an important factor among many students, for others, particularly those with a middle or lower class background, the driving force is largely a desire for economic security and social recognition" (Qubain, p 60). El-Ghannam explained that "the flood towards the universities is an almost infinite prestige attached to the university itself ... one enrolls in any faculty whatsoever; the important thing is to be enrolled in the university" (1971, pp 14-15).

The expansion of educational opportunities since 1958, at both the primary and secondary level of education in Iraq has generated increasing pressure on higher educational institutions. Due to political, ideological and developmental considerations, and because of the view that higher education is one source of essential high-level manpower, the subsequent governments of Iraq have striven to meet students' desires, and to modernise higher education and relate it to the country's manpower requirements. A major step taken towards this aim was the expansion of admission to higher education. As Table 4 demonstrates, enrolment in higher education increased rapidly from 5,433 in 1957-58 to 29,767 in 1967-68 and to 96,301 in 1980-81. Girls' opportunities in higher education have also been increasing with fewer obstacles which vanished in the late 1970s. With the growing foundation of higher education, the size of teaching staff has increased fourfold (see Table 35).

The surge of enrolment in higher education has been particularly visible in the humanities and social sciences. Between 1945 and 1964 the colleges of higher education graduated

19,774 students, of whom 4,602 were women; 15,249 graduates were in various fields of liberal arts, while 4,525 received their education in pure and applied sciences (Qubain, 1969), pp 287-288). Therefore, "during the 1960s many graduates of higher education were unable to find jobs. Some filled positions where their qualifications could not be utilised" (Harby, 1972, p 29).

Harbison and Szyliowicz attribute the increased enrolment in the humanities and social sciences to economic factors. According to Harbison, in most of the partially developing countries, faculties in the humanities and social sciences "provide cheap and poor education for large numbers of students, and thus satisfy in part the demand for numbers of places in the universities" (1964, p 85). Whereas to increase the number of students in scientific courses, as Szyliowicz says "entails large expenditures for the construction of new facilities, the acquisition of expensive equipment and the employment of large numbers of scarce specialists" (1973, p 318). However, it seems that channelling the applicants into liberal arts colleges as an answer to the pressure on admission to universities would only be a temporary solution which in fact would not solve the problems.

Practically, this approach is merely postponing the problem until after graduation, especially if no job opportunities become available. Thus, such a trend might perpetuate the problems of accommodating the graduates according to their expectations and aspirations, particularly if there is no relationship between the field of study and manpower requirements.

Nevertheless, according to available statistics about manpower needs in Iraq, a surplus of humanities and law students and an inadequate number of technological, scientific and medical personnel continued to prevail (Akrawi, 1973, p 356).

Furthermore, in 1972-73, 60.2 per cent of the students who were admitted to higher education were in humanities and

Table 36Growth of Students in the Universities, Colleges and Technical
Institutions 1957-58 to 1983-84

Year	Male	Female	Total
1957-58	-	-	5,433
1960-61	8,550	2,536	11,086
1965-66	15,164	7,059	22,223
1969-70	27,489	8,045	35,544
1970-71	30,680	9,212	39,892
1971-72	34,459	10,230	44,689
1972-73	37,451	11,743	49,194
1973-74	42,872	15,417	57,872
1974-75	47,792	18,556	66,348
1975-76	49,584	21,764	71,348
1976-77	52,764	23,570	76,334
1977-78	54,848	25,497	80,345
1978-79	57,017	26,576	83,593
1979-80	63,708	28,647	92,355
1980-81	66,084	30,217	96,301
1981-82	77,456	35,009	112,246
1982-83	79,091	37,169	116,260
1983-84	81,580	37,448	119,028

Sources: 1957-58 and 1960-61: Ministry of Planning "Annual Abstract of Statistics" 1957-60 (Baghdad: Zahra Press, 1961) pp 65-72 respectively

For 1965-66 and 1970-71 to 1980-81 Ministry of Planning "Annual Abstract of Statistics" for 1965-66 and 1980, Table 11/18, p 240.

For 1981 - 1984, Ministry of Planning, Statistical Pocket Book, 1983, p 62. Table 31.

Table 37

Number of Students and Faculty Teaching Staff in Higher
Education 1960-61 to 1983-84

Year	Number of students	Number of teachers*	Teacher/student ratio
1960-61	11,086	852	1:13
1965-66	22,223	1,341	1:17
1969-70	35,544	1,722	1:21
1970-71	39,892	2,074	1:19
1971-72	44,689	2,144	1:20
1972-73	49,194	2,363	1:21
1973-74	57,872	2,669	1:22
1974-75	66,348	3,016	1:22
1975-76	71,348	3,668	1:19
1976-77	76,334	4,008	1:19
1977-78	80,345	4,496	1:18
1978-79	85,593	5,207	1:16
1979-80	92,355	5,680	1:16
1980-81	96,301	6,515	1:15
1981-82	112,465	6,601	1:17
1982-83	116,260	6,621	1:18
1983-84	119,028	6,934	1:17

* Number of teachers includes Iraqi, foreign and Arabs.

Source: (1) Ministry of Education up to 1975
Annual Statistical Report

(2) Ministry of Planning up to 1983-4
Statistical Pocket Book, Baghdad

Growth of Students in Universities, Colleges and Technical Institutions
1960-61 to 1983-84

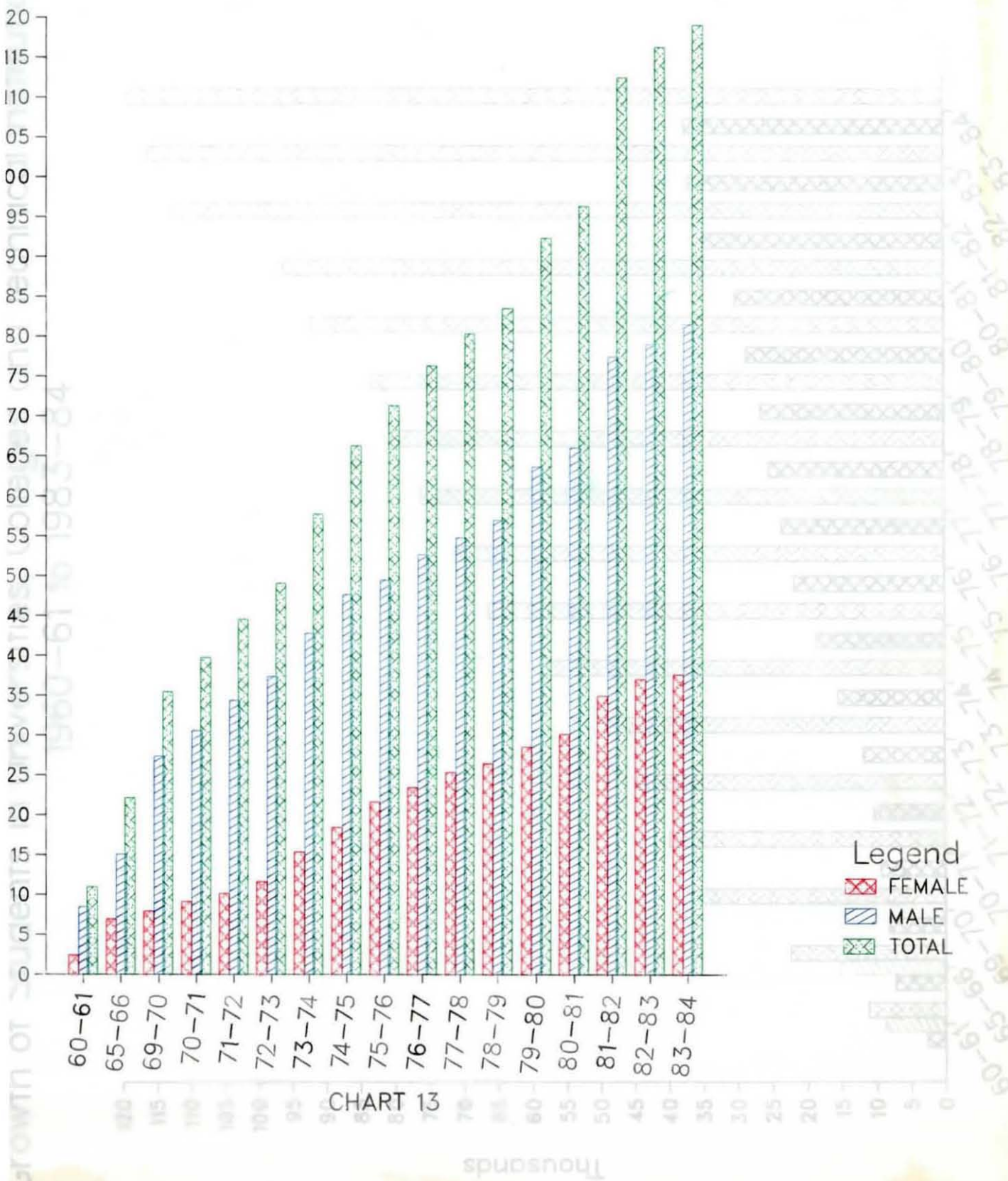
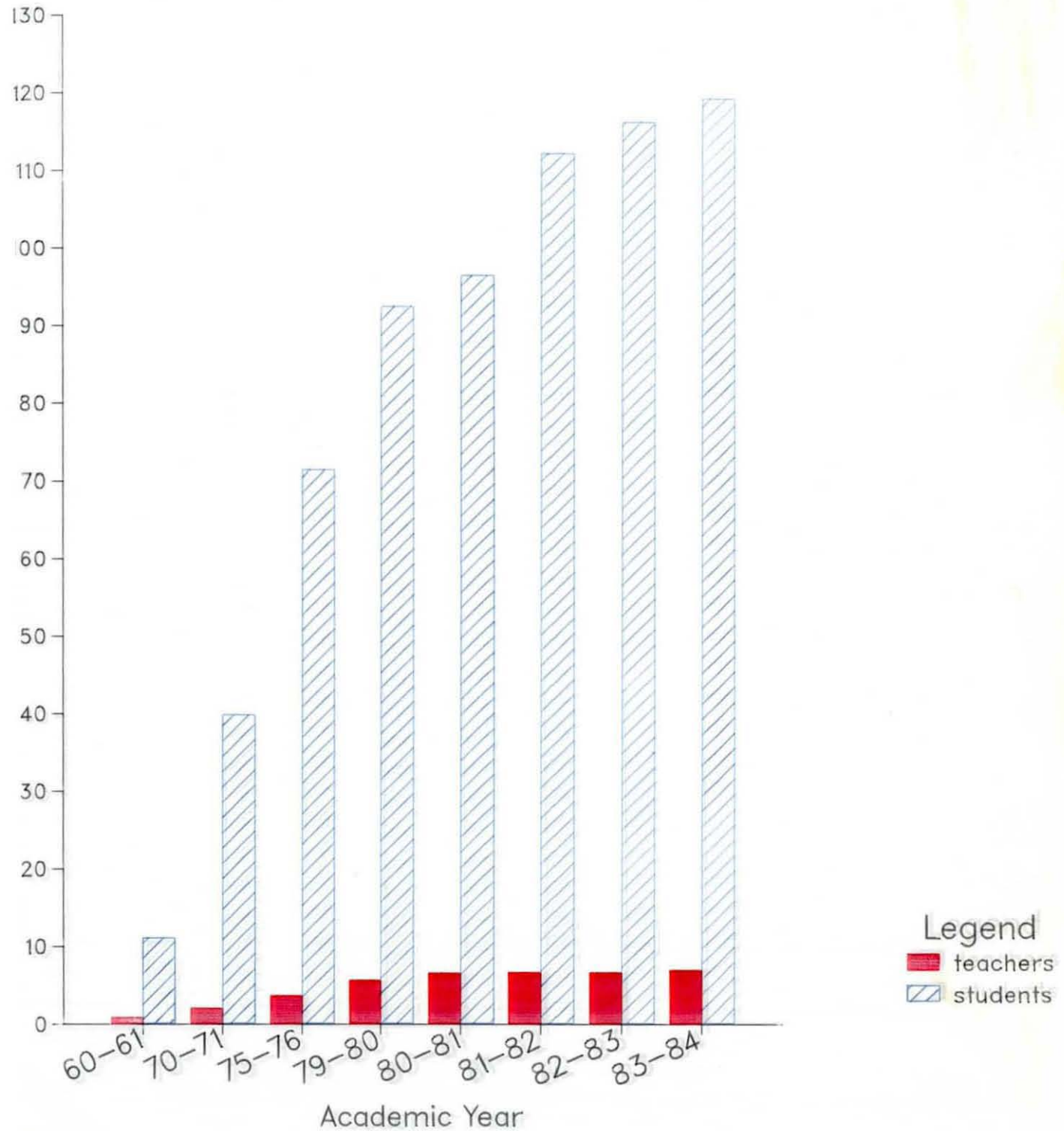


Chart 14

Number of Students and Teaching Staff at Higher Educational Institutions



social science, and 39.8 per cent were in science and technical studies (M.P., 1973, p 540), but again in 1975 a new admission policy was adopted by higher educational authorities which encouraged greater enrolment in the most needed areas of specialisation, namely engineering, medical, agricultural, economic, administration, technical and vocational studies (Al-Thawra, August 25 1975, p 4).

Accordingly, the admission strategy for the 1975-76 academic year was to admit 20,695 students according to the most needed specialisation for the national development plan. What seems necessary along with this strategy is the introduction of career education in order to familiarise students with the types of studies related to needed specialisation, and to develop students' interests in the needed types of studies and to assure them of future job and economic securities. This would be a valuable incentive in attracting more students to enrol in institutions which provide education in the most required areas of specialisation. Another encouraging factor to promote education for the needed specialisation lies within the laws and regulations of employment.

Attempts to improve the quality of education in Iraq are hindered by the serious problem of faculty shortages which impair the efforts of higher education to cope with the growing student enrolment. The growth of teaching staff did not keep pace with the subsequent growth of student enrolment. This problem has been more crucial in the colleges of humanities and social sciences than in the colleges of engineering science and medical studies. The latter colleges previously enjoyed a healthy staff-to-student ratio until 1962. Since then however, the situation has also been worsening (Darwish, 1969, p 178), even though the lack of laboratory and equipment facilities has restricted the number of enrolments in such studies to a certain extent (El-Rumin, 1967, p 111). This is, of course, a result of general expansion in student enrolment which occurred in response to the rising needs for graduates in areas which the country could not ignore if it wished to succeed in its modernisation process.

To get over this problem temporarily, the government employed non-Iraqi teaching staff which includes Arabs and foreigners, but the shortage is still quite noticeable in all university departments. Attempts were made to alleviate this to some extent by new government measures to patronise Iraqi intellectuals, specialists and scientists working abroad. The first action being taken is by introducing Law No 189 of 1970, which was issued to encourage the return of scientists from abroad by providing them with certain rights and privileges mostly economic. This law was not very effective in attracting expatriates to return home. Therefore, Law No 154 was issued in 1974, providing that every Iraqi who held a post-graduate degree from a foreign university was entitled to rights and privileges. That law, in terms of economic benefits, was very generous. However, the law did not take into account other elements which are essential for the productive use of such personnel. The application of the law was not very successful and in 1976 it was revoked.

Although possible measures have been taken to promote the interests of teaching staff, the shortage can still be identified as a critical problem for higher education in Iraq. The Ministry of Higher Education attracted some of the graduates from other Ministries who returned from abroad with their PhDs to teach in the universities and paid them a special allowance to reward them for returning home. These actions did have some effect in filling a gap in the faculties.

Although the growth of enrolment in higher education was inevitable, it has been achieved at the expense of the quality of education (Khadduri, 1978, p 19). In fact "the level of training, from theoretical and professional points of view, was lowered and the academic community warned about the widening gap in the relation between the quantitative and qualitative evolution in higher education in Iraq" (Rybuikov, p 9). This was a result of several factors. First, as pointed out before, the expansion of educational opportunities at the secondary level has caused a decline in the quality of secondary school education, and consequently, poor preparation

of students for further study. This low quality of instruction is due not only to crowded classrooms, but also to teaching methods, especially the concentration on recitation in the classroom. Even though some improvements have been introduced in teaching methods at this level, the general character of teaching in secondary schools remains discouraging. The students are ill-prepared for higher education. This has become a subject of complaint by university faculties who sometimes even have to review some parts of secondary school curricula for students whose standards are low (Qubain, 196⁶, p 178).

However, to remedy the existing situation in higher education, many studies have been conducted by the Ministry of Planning and the Ministry of Higher Education and Scientific Research to find a balanced policy to run higher education in Iraq in line with the developmental plans, and to meet the expected requirements of various specialisations for the National Development Plan for 1975-80 onwards, therefore as a result of this research, the Ministry of Higher Education and Scientific Research has adopted a new strategy stressing specific requirements, as:

1. linking the policy of higher education to the political economic, social and cultural aspects of the government policy in its progressive movement towards the future.
2. adaptation of the curricula to the needs of society and its environment in order to enable scientific institutions to interact with the national development plan, while keeping abreast of scientific advancement, and
3. providing academic and technical manpower in the most needed areas of specialisation with an emphasis on their practical training,
4. sponsoring students in their financial needs for scientific research and studying abroad.

Since 1982 these objectives have remained questionable and their degree of success is still unknown in relation to the quantitative and qualitative aspects of the situation.

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CHAPTER SIXTrends and Problems in Vocational Education and Its Relation
to Human Resources Planning in Iraq

- 6.1 Introduction
- 6.2 Vocational Education
- 6.3 Administration of Vocational Education
- 6.4 Student Selection for Vocational Education
- 6.5 Problems Affecting Vocational Education
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CHAPTER SIXTrends and Problems in Vocational Education and Its
Relation to Human Resources Planning in Iraq6.1 Introduction

It is true that remarkable progress was accomplished in Iraq during the monarchical regime, yet the progress was not encouraging and "fell short of meeting the needs of the Iraqis" (Herby, et al, 1965, p 61). The constitutional provisions for compulsory education, for example, were neglected, access to education was crippled by maldistribution of schools, the educational system was handicapped by a chronic shortage of teachers and physical facilities, and the illiteracy rate exceeded 80 per cent. Despite the availability of funds, little or no attention had been paid to modify the educational system.

Therefore, since the early days of the republican regime in 1958, the leaders were confronted with the heavy burden of meeting the country's educational needs. Although educational growth has been spectacular during the republican regime, the country's need for qualified and semi-qualified human resources has never been properly met. As will be seen, education today requires a profound transformation if it is to reinforce and facilitate the country's socio-economic development.

Unfortunately, the government created, by its policy for educational expansion, a problem which now needs serious reconsideration if successful expansion is to take place. In the first place, it did not serve the main purpose which was to meet the country's developing demands. According to Fahim Qubain, modern education in the Arab world has neither developed slowly side by side with, nor as a consequence of, the natural process of, cultural, intellectual and material growth of society. Its development was not motivated by the quest for knowledge, but rather was imposed by the respective governments in the area in order to serve certain needs for specialised manpower (1966, p 59).

In spite of the expansion during the last twenty years, and the changes in the curriculum, graduates and expenditure, the product of such growth remains incompatible with the requirements of recent development in the country. One of the difficulties that the country faces is the usual problem, being the lack of sufficient trained people who can efficiently handle all the development programmes, and are able to assume the burden of developmental responsibilities. This can be chiefly attributed to educational policies which were not established to cope with the various problems. El-Ghannam emphasised that "in all cases, the major difficulty is that plans for educational expansion have not yet been integrated in plans for economic development or adjusted to suit present and future needs for skilled manpower. As a result, economic benefits are not commensurate with the high expenditure devoted to this level of education (1970, pp 18-19).

There have been efforts to implement new plans aiming at the reformation and modernisation of vocational and higher education in Iraq. The system, however, remains plagued by serious difficulties which have contributed to the retardation of achieving national development goals. It is the purpose of this chapter to examine the general trends and problems of vocational and higher education in Iraq. This attempt aims primarily at diagnosing the problems of both levels which must be recognised if future plans for education and the development of manpower in the country are to be formulated in order to promote national development and modernisation.

6.2 Vocational Education

During World War I, Iraq's economy was in a very poor state. Apart from a small agricultural sector and local trading and handicraft industries, there were few other economic activities (Qubain, 1958, p 18).

The British administration and the national government took some measures to improve the economy and the infrastructure. Industrial and social overhead projects were established. Local investment built: a spinning and weaving

factory near Baghdad for the production of woollen yarn and cloth, some cigarette factories, a tannery with modern plant, a cotton ginnery and a soap factory. However, the major investment and achievement of foreign capital was in oil exploration after oil was struck in 1924 and in 1925.

Since that time efforts have been made to open a vocational school, especially by the oil companies, but due to the lack of indigineous administrative and instructional personnel, non-Iraqi experience was sought.

The first school was opened in 1919 with 43 male students who were working daily wage apprentices in the British military workshop and railways (Al-Husri, 1967, p 361), and when the national government took over from the British administration, the figure went up to 211 in 1924/25. The next year, the number of students fell drastically to 60, this was mainly due to the drop-out of students from the course before it was completed, and also because of the low prestige of this type of education. These factors were principally militating against the popularity and growth of vocational education (Al-Husri, 1967, p 362). This may be due to some inherited factors which caused the development of vocational education in Iraq to suffer considerably. Qubain states taht:-

"very strong factors inhibited the development of vocational education. For untold generations a strong prejudice has existed throughout Iraq against hand work. It was regarded as undignified, degrading and menial. As a result, trade schools, when they existed, usually attracted those with no other alternative - orphans and children of the poor and lowly. Most of these schools, whether public or private, were in the nature of charitable institutions. With the gradual rise of industry, disdainful attitudes towards vocational training and manual labour have begun to wane, but are still very much in evidence "(1966, p 25).

Joseph Szyliowicz has emphasised the association of vocational education with low prestige and less financially

rewarding employment. He writes:-

"The graduates of vocational schools possessed little prestige and were seldom able to find financially rewarding employment, whereas persons with bureaucratic positions, regardless of rank, were more highly regarded and enjoyed economic security. The impact of the West serves to reinforce this traditional preference by creating demands for large numbers of new skills that could be performed only by graduates of the modern academic schools who therefore come to hold positions of power and prestige" (1973, p 313).

In addition to social factors, cultural factors were behind this problem which is worth mentioning in this respect because of the inherent attitude of Muslim Arabs towards the seeking of knowledge. According to the traditional Arabs, education meant the acquisition of knowledge, which meant reading and writing (Akrawi, 1942, p 177). Thus, knowledge for its own sake was highly prized. This viewpoint made both teachers and parents put much stress on subject matter in the general schools. Vocational and manual training was not included. This attitude was carried over to the general education curriculum. However, such syllabuses offered an outlet for the attainment of the pupil's ambition for a government clerical job which was very strong as it indicated higher social status and better economic returns and prospects, whereas vocational education led to less business and limited social prestige.

It was, however, noted that vocational education tended to foster the bazaar craft skills because public opinion had no clear idea for the proper function of vocational training as aligned to industry and modern technology, but in spite of this attitude, there was an ever increasing demand by government departments and industries for skilled workers and there was a big need to create skilled indigenous trades which did not exist in Iraq before. Therefore, the technical departments were staffed largely by foreign personnel (Hammond, 19:

In responding to the need for indigenous technical skills, different governments and technical departments sought help for vocational training. The first department to approach was the railways and the second successful co-operation was the Iraqi army. Twelve soldiers were trained in Baghdad vocational schools as wireless telegraphists. The army also helped to open a section for training mechanical transport military officers which was opened in the Baghdad school.

Vocational education remained at this low level until the late 1950s. Therefore, for most of the recent period, vocational education in Iraq has been put in the hands of people whose training did not equip them to appreciate or deal with the problems related to this type of education.

The inherited conception of vocational education among the policy-makers and lack of appreciation of its problems, affected sound development of this type of education until the late 1960s. An important development in vocational training in Iraq emerged in the early 1970s. Some vocational training schemes were established by public and oil enterprises, such as the Iraqi State Railways, the Basra Port Administration and the Iraq Petroleum Company. Such courses were designed to meet the immediate needs for skilled personnel for the company or agency operating them.

Apart from these vocational training schools, four types of schools, parallel to the academic secondary school, provide vocational education in industrial, agricultural, commercial and domestic areas. These schools, as indicated before, suffered from backward programmes and remained limited. Between 1959 and 1965, for example, Iraq managed to increase primary enrolment by 102 per cent, secondary by 174 per cent, teacher training by 99 per cent and higher education by 25 per cent, while vocational training alone lagged behind with only a miserly 7 per cent improvement (El-Koussy, 1967, p 207).

During the early years of the republican regime, vocational education in Iraq was "in its infancy and has made only little progress as compared to the acute needs of the country,

particularly for industrial and agricultural workers trained in modern techniques" (Harby, 1965, p 132). In 1962-63 students enrolled in technical schools constituted only 0.7 per cent of the entire enrolment at all levels of education (Ibid, p 144). Although the government planned to establish at least one industrial school in each of the fourteen provinces (Qubain, 1966, p 33), only eight of these schools existed in 1968 with 1950 students and 282 teachers (Al-Khayat, 1968, p 10). Again, in its educational policy, drawn up in 1964-65, the government had accounted for substantial expansion in vocational education. Tables 38 and 39 however, seem to indicate that progress in this direction was not achieved to the degree that authorities had hoped. In spite of the country's immediate need to meet its shortages of manpower in various areas of economic development, the government was not even able to reduce the wide gap between the development of general academic and vocational secondary education.

From 1960-61 to 1969-70 the number of secondary vocational schools increased from 10 to 12, the teachers from 224 to 375 and the students from 2089 to only 2140. The proportion of student enrolment in vocational schools did not exceed 8.4 per cent of the total number of secondary school students in the academic year 1981-82, in spite of the government plan to expand student enrolment in vocational education to reach its target by accepting 50 per cent of the whole secondary school students into vocational education by the year 1984-85, but from the figures shown in Table 40 it seems that this target is not going to be reached by the target time among the four areas of vocational education in Iraq. It is believed that a strong reason behind this is that the future prospects of the vocational education graduate are not very encouraging, and therefore most secondary school students continued to prefer the general secondary education, and, according to the Ministry of Planning report in 1981, "there was a growing awareness of unemployment among students of general secondary education, especially the literary specialisation diplomas, neither the government or industrial administration were able to meet their needs for personnel with vocational and technical qualifications" (pp 16-17).

Table 38Students in Vocational Secondary Schools in Relation to Students
in Academic Secondary Schools 1960-61 to 1983-84

Year	Number of Vocational Students	Percentage of Vocational Students Relative to Academic Students	Vocational Students per 10,000 Population
1960-61	2,089	2.7	11
1965-66	1,598	3.2	19
1970-71	2,660	3.3	28
1975-76	23,298	5.4	21
1979-80	54,026	6.0	42
1980-81	56,835	6.0	42
1981-82	53,203	5.2	39
1982-83	61,383	6.3	44
1983-84	77,433	8.0	53

Source: Ministry of Education "Annual Statistical Report for the Development of Vocational Education"

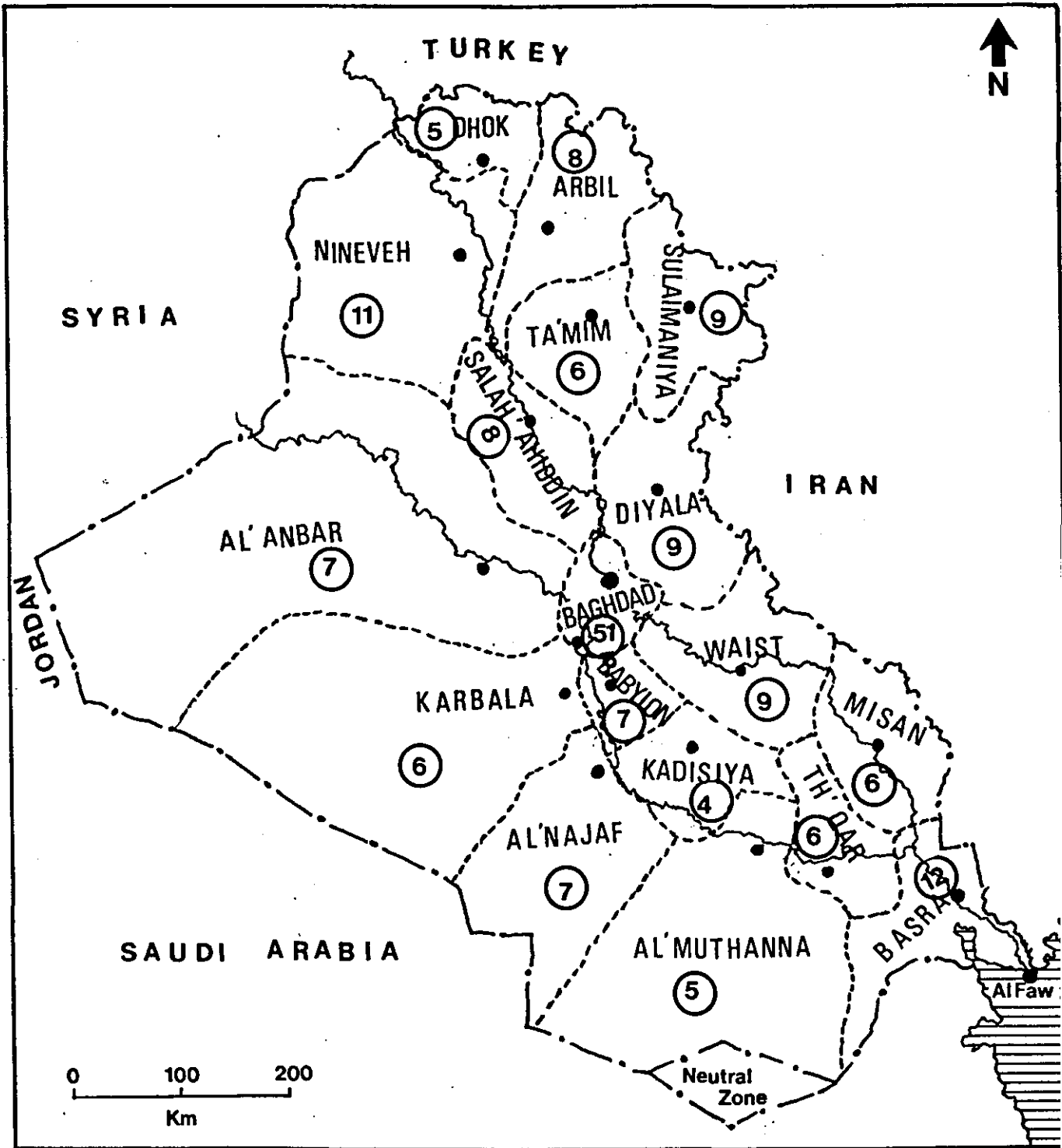
Baghdad, General Directorate of Educational Planning
1983-84

Table 39

Number of Vocational Schools, Students and Teachers 1960-61
to 1983-84

Year	Schools	Teachers	Students	Student/ Teacher Ratio
1960-61	10	224	2,089	1:9
1965-66	7	214	1,598	1:8
1970-71	10	284	2,660	1:9
1975-76	75	1,607	23,298	1:15
1979-80	50	2,371	30,968	1:13
1980-81	143	4,150	56,835	1:14
1981-82	148	4,225	53,203	1:13
1982-83	157	4,733	61,383	1:13
1983-84	176	5,115	77,433	1:15

- Sources:
1. Between 1960-66, Ministry of Education, "Annual Statistical Report for the Development of Vocational Education", Baghdad, General Directorate of Educational Planning
 2. Between 1970-76, see the same source for the relevant years.
 3. Data for 1977-80, "Ministry of Planning, Statistical Report on Vocational Education in Iraq" for the relevant years.
 4. Data for 1980-81, Vocational Education Committee, File No 1.



Map 5 Distribution of vocational schools over the Iraqi provinces 1983-4

Source of the figures: Annual Statistical Report 1983

Table 11/11 p 220 Ministry of Planning, Iraq

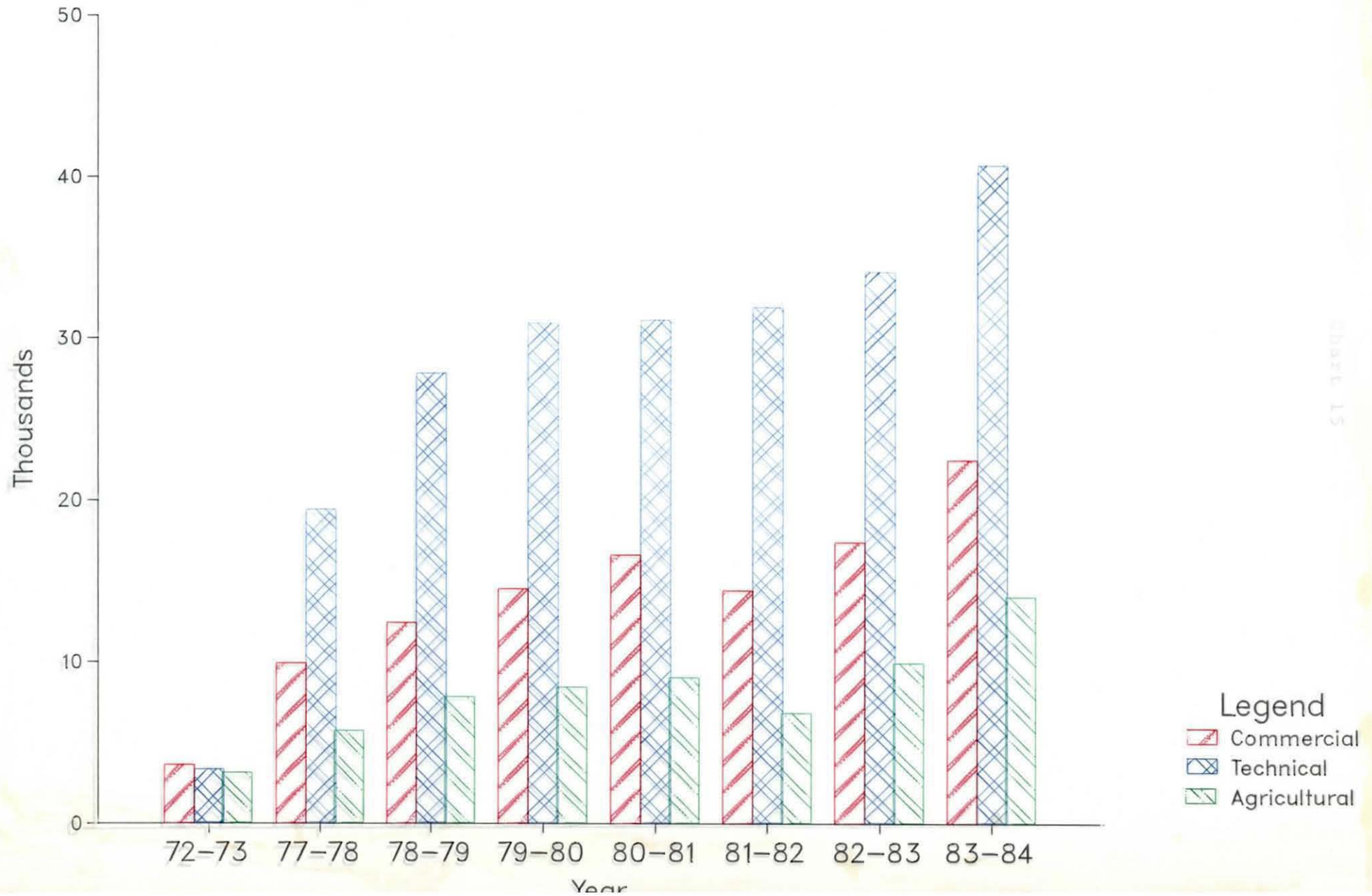
Year	Students				Schools		
	Commercial	Technical	Agricultural	Total	Commercial	Technical	Agricultural
1972-73	3,656	3,321	3,119	9,096	15	16	14
1973-74	5,187	5,264	3,531	13,982	15	18	14
1974-75	7,782	8,059	4,112	19,953	21	20	15
1975-76	8,479	9,697	4,689	22,865	27	23	16
1976-77	9,207	13,768	5,390	28,365	32	32	18
1977-78	9,944	19,460	5,784	35,188	33	38	21
1978-79	12,436	27,854	7,896	48,186	39	45	25
1979-80	14,569	30,968	8,489	54,026	48	50	28
1980-81	16,643	31,182	9,010	56,835	50	63	30
1981-82	14,403	31,910	6,890	53,203	52	64	31
1982-83	17,463	34,010	9,910	61,383	56	66	35
1983-84	22,560	40,780	14,093	77,433	60	70	40

Source: "Annual Abstract of Statistics" Ministry of Planning 1981, Table 11/10

Table 40

Vocational Education by Branch During the Years 1972/1973 to 1983/84

Number of students in vocational education 1972-73/1983-84



Thus, in order to facilitate swift progress in the economic and social fields, the National Development Plan 1975-80 renewed emphasis upon the expansion of vocational education, "The plan has aimed at the construction of a number of agricultural and industrial schools with a view to meeting the needs of agricultural and industrial projects for additional technicians and a skilled labour force" (Ministry of Planning, p 17).

The greatest growth in this type of education, however, did not take place until the academic year 1979-80. In terms of percentage, nevertheless, vocational education remained limited to 6.2 per cent of the secondary school enrolment in 1978-79 and stayed at 6.00 per cent in 1981-82, and continued to lag behind the changing demands of the country's development programme. In a study to assess the needs for trained manpower for the Development Plan for 1975-80, the Office of Social and Educational Planning in the Ministry of Planning had indicated severe shortages of skilled and technical workers, especially in vocations in which there were no school training programmes. For selected 456 public and private industrial establishments, for example, 6,100 skilled workers were needed per year, but only 1,600 persons could be trained annually in the existing industrial schools, thus creating a shortage of 4,500 per year and a total of 22,000 workers during the five year period of the plan (Qassim, 1976, p 6). The shortage of trained manpower is more acute when it is applied to other various sections of the country's development programmes. In addition to the traditional elements, several factors have caused vocational education to develop at a very slow pace, unable to meet the country's increasing demands for manpower. The original idea behind establishing vocational schools, for instance, was to absorb some of the primary school graduates who were not expected, or were not able, to pursue their education in academic secondary schools. Such a concept led to the impression that vocational education was inferior and confined to one skill or trade rather than being

a means for socio-economic development. Thus, most students considered academic secondary education as the only channel to access to higher education.

Such a trend was encouraged by the free, open-door educational policy, especially when it was a known fact that there was only a slight chance for vocational school graduates to enter higher educational institutions because of the restrictions contained in the admission policy (Al-Samraie, 1968, p 42). When the examination entrance to preparatory schools was abolished in 1975, enrolment in commercial schools decreased from 623 in 1972-73 to 401 in 1982-83, even though commercial schools are the most preferred among vocational schools because they lead to white-collar jobs. So "even secondary school certificate, let alone a degree, is believed to confer such status on the possessor that it puts him above practical work" (Qubain, 1966, p 33). Unfortunately, "this state of affairs turns out a large number of arts graduates and secondary school leavers who cannot be employed in jobs of a practical nature or at the level to which they feel entitled" (Ministry of Planning, 1976, p 120). What is more important is the fact that such a trend was reinforced by the absence of economic and job incentives for the graduates of vocational schools. This is clearly reflected in the pay scale of various occupations in the job market, which in fact are based on the type of educational certificate a person holds rather than on job performance or productivity.

Philip Foster has emphasised that the lack of vocationally trained people who are needed for economic development is caused primarily by the economic system rather than by the amount and quality of instruction of the vocational schools. In his study of the Ghanian situation he found that "the financial rewards and the employment opportunities for technically trained individuals were never commensurate with opportunities in the clerical fields" (1965, p 145). Thus, according to Foster:- "The crucial variables lie ... in the structure of incentives within the economic system and in the degree to which the institutional milieu is supportive of entrepreneurial activity. Without such a milieu no amount

of vocational instruction can be effective since the skills acquired will not be utilised. To put the issue more colloquially, in the initial stages technical and vocational instruction is the cart rather than the horse in economic growth, and its development depends upon real and perceived opportunities in the economy. The provision of vocational education must be directly related to those points at which some development is already apparent and where demand for skills is beginning to manifest itself" (Ibid, p 153).

But, according to Ghazal, "many of the training programmes are not feasible in Iraq because of the lack of highly qualified staff of instructors and practical teachers" (1973, p 9). Thus, the quality of instruction continued to be generally poor not merely because of the insufficient number of qualified teachers, but also because no serious consideration was given to the establishment of specialised institutions to prepare vocational school teachers and to expand vocational education. Most teachers in industrial schools, for example are graduates of the same school (Qubain, 1966, p 33).

The weakness of vocational education is also due to both the irrelevancy of the curricula to local life and needs, and the failure of its adaptation to rapid development in science and technology, for example, almost all the material in the "industrial science, third year, electronics" is concerned with the presentation of the valve system as far as TV operation and repair are concerned. The syllabus of training for electronics was set in the 1960s; hence its concentration on the valve components. But electronics is a fast-developing and fast-changing scientific field. The valve has been replaced by the transistor, the integrated circuit and the micro-processor. The content of this text book lags behind the electronics industry at home. In Iraq, there is an assembly industry for calculators and colour TVs in which the transistor and the integrated circuit are used. Graduates of vocational schools are employed in these industries, but their knowledge is largely geared to the old valve system, which is no longer used by the industry. A large part of the

content of this textbook is therefore irrelevant to the work being done by factories. It is suggested by a vocational educator that:

"The curriculum must be established and the course content developed in the closest possible harmony with the actual work content of the trade, industry or technical area." (McMahon, 1972, p 62).

Moreover, most vocational school subjects are theoretical in nature, and lack the practical aspects of work activities in various fields, such as agriculture, industry and commerce.

In its endeavour to improve vocational education, the government have, in recent years, imported the latest industrial machines and technology for some trades, which make knowledge, explanation and demonstration given in some theoretical textbooks seem almost completely irrelevant and outdated.

For example, in the majority of electronics (i.e. TV and radio) workshops and laboratories of the vocational education, the equipment and instruments are Dutch, or Yugoslav Philips, which use transistors and integrated circuits, whereas the theoretical, technical textbooks of the electronics trade are based on descriptions of the old German TVs which used the valve system. The content of the related theory textbook in a case like this is out of tune with the workshop practice. Another example could be found in the textile trade. The machines and equipment installed in the workshop of the textile school in Baghdad are of the most modern type, while students receive theoretical instruction based on an old Egyptian syllabus explaining and providing examples of old machines in this industry. In both of these examples, applied theory is largely in conflict with practice, or at best cannot be demonstrated practically. Therefore only the lecture method is used with no instructional aids in evidence.

Another factor which affects the progress of vocational education in Iraq, and this relates to the educational equipment for this type of education, is not adequate to allow even

the very few students enrolled to develop their work capabilities more competently. In 1976, the Vocational Education Committee reported that:-

"Despite the necessity for adequate equipment, tools and machines, their quality does not correspond with the increasing number of students in the secondary vocational education which necessitated the adoption of the double shift system in these schools. Moreover, a considerable number of the machines do not meet the requirements because they are obsolete" (Vocational Education Committee 1976, p 20).

Since the submission of this report, action has been taken by increasing the allocated funds for vocational education and by the end of the 1970s this situation improved, but it has not reached the desired level. Machines and tools available in the workshops or fields are in many instances inadequate for the large number of students. Therefore, student trainees have to share benches and machines at the cost of training quality. Also, the instructor/student ratio has increased beyond an acceptable level.

Previously, the instructor/student ratio was 1:8 or 1:10. Decision No 3 of the Planning Board fixed that at 1:12 (Vocational Education Committee, 1981, File 11, p 74). According to the committee the instructor/student ratio was 1:29 in 1976-77 which increased to 1:33 in 1977-78 (Vocational Education Committee 1978a, p 11). They indicated that the ratio should be between 1:10 or 1:15 (see Table 2). In reality, Al-Tammimi indicated in his recent research that the ratio in some workshops in most vocational schools in Iraq reached, for example, as high as 1:45 (March, 1982).

This unfortunate situation of vocational education is attributed to the absence of coherent planning in addition to the traditional factors. Szyliowicz clearly singles out the crucial problem of vocational education when he refers to

its situation in the Arab World, including Iraq, where shortages in vocational education continue to form one of the most serious obstacles to the country's advancement. He writes:

"The problem of vocational education extends beyond the limited growth in enrolment, for the increase which has taken place occurred largely without coherent planning and co-ordination. Many institutions were opened without adequate preparations either in terms of needed facilities and resources or of analyses of manpower demand, so that serious imbalances have resulted between vocational training and the needs of the economy. In many cases male and female students have been trained in areas already saturated rather than in specialities where shortages of trained manpower existed. Furthermore, the neglect of planning resulted in efforts at rapid expansion without adequate consideration of the physical and human resources that would be needed, and already serious qualitative problems have been aggravated everywhere." (1973, p 315)

According to Ghazal, training activities in Iraq are not structured according to basic and rational priorities and needs. This is due to both the lack of plans for vocational training in specific terms and the lack of stability in economic planning and development in general. Therefore, while there are shortages of skilled personnel in some occupations, there is an excess of unemployed skilled people in others (1973, p 4). This sort of unbalanced situation is harmfully effecting both the value of schools' output and the process of modernisation in the country. It will continue to do so unless a serious effort is made to integrate academic and vocational education on one hand and education and national development plans on the other.

6.3 Administration of Vocational Education

Formal vocational education in Iraq has continued to be run in the post-1958 period by the Ministry of Education. It

has however to be recalled that since the 1950s, efforts have been made towards building up secondary vocational education administration separate from the administration of the general stream of education. This was because of disappointment with general educators, who either lacked understanding of the problems of this type of education or were unsympathetic to its aims. Also, the ineffective administrative structure of vocational education under the auspices of general educational administration was to a large extent responsible for the lag of vocational education in content and direction (Ford 1952).

Legislation throws light on policies adopted towards more administrative independence of secondary vocational education from administration of general education. Complete separation between administration of the two sides happened in the early days of the Republic when the Ministry of Education Regulation No 19 of 1958 established the Directorate General for Vocational Education. Within the Directorate General for Vocational Education there were separate Directorates for each of the branches of vocational education provided, namely; Technical, Agricultural, Commercial and Home Economics for girls. The latter was abolished in 1975, for the reason that these schools did not provide fully trained primary school teachers. Law No 198 of 1975 established the Foundation for Vocational Education (FVE) which replaced the Directorate General for Vocational Education (DGVE). This new legislative development has given more independence and authority to vocational education to manage its own affairs. This separation tended to perpetuate an objective dichotomy. This trend has been strengthened by the establishment within the Foundation of Vocational Education of a curricular section for vocational education from that for general education.

Vocational education by its very nature is very costly and demanding of resources; expensive machinery and materials; special building which could house the industrial machinery and allow for proper training; technical teachers who are specially trained; expensive technical books and costly

related equipment in addition to a variety of other requirements are maintained, funds not wasted and other resources are well-utilized, co-ordinating and supervising bodies for vocational education have been formed in some countries to bring formal and non-formal vocational education together for concentrated action and performance. Such bodies also serve as a liaison mechanism for communications between vocational education, the industry and other economic sectors at the national and institutional levels.

In various developing countries co-ordinating help to bring formal, non formal vocational education, industry, other sectors of the economy, and the national economic planning machinery together. Again diversity rather than uniformity is characteristic of the organisation and administration of such co-ordinating bodies which are under the Ministry of Education in countries like Argentina, Venezuela and Uruguay. But in Colombia and Paraguay they are attached to the Ministry of Labour. The Ministry of Industry is responsible for the co-ordinating machinery in Peru, but it is the Ministry of Economics in Chile. In Costa Rica it is attached to the Presidency of the Republic (see ILO Centre for, 1975, p 12).

Generally speaking, in such vocational education boards or committees/councils there are representatives from the Ministry of Education, Labour, Industry, Planning and other relevant Ministries, and training institutions, in addition to the employers and workers organisations. It is felt that such bodies would facilitate better communication between interested parties for improvement of vocational education provision.

Such a body and mechanism for liaison between formal and non formal vocational education on one side and between these and various sectors of the economy on the other hand is non-existent in Iraq.

6.4 Student Selection and Admission Policy in the Vocational Schools

Usually the intermediate school leavers at the age of 15 or 16 are accepted in the secondary vocational schools for three-year courses of study.

Methods of initial entry selection are based on academic achievements in the intermediate school baccalaurate examinations*.

No other qualifications (such as a pre-vocational course) are required. Also the entry process is not supplemented by any type of test (e.g. general aptitude, or special aptitude test for the trade chosen by the applicant). One result has been the admission of students who are either lacking aptitude for vocational studies or put in the wrong trade for training.

However in practice entry is available to all who seek it. Therefore it seems that the Selection Committee's major task is to distribute applicants over trades available in the school according to their individual preferences. Where the demand is too big for a particular trade, priority is given to those who had scored higher marks in the intermediate school baccalaurate examination. In many instances students are assigned to trades they had not opted for (see Vocational Educational Committee report no 1: 1980, pp 18-19). Oral evidence showed that lack of interest and absenteeism will result when students are forced to take up trades which they had not opted for. Psychological studies have shown that personal wishes are of great importance for an individual's

*The researcher had the opportunity to attend meetings of the Admission Committee in both Rasafa and Karkh Schools in December 1984. She talked to some of the members and some students about admission requirements. She had the chance to check the students' application files which included grades, social and economic background. The views of both students and committee are reflected in the discussion.

educational performance (Al-Zawbaie et al, 1978, p 6). But a very small percentage of students opt for vocational education as a personal choice since they have a technical background acquired from their families, or simply because they like training for a trade. A large number however opt for vocational education for one or another reason, e.g students who are less academically orientated and of lower achievements than students of the general stream of education. This general phenomenon observed elsewhere in the world. For example, McMahon described the students who opt for vocational education in the USA and their motives in these words "They tend to be worried, unsure of their ability to handle college level work, apologetic about their academic inadequacies and ready to accept any and all kinds of help and support" (McMahon 1972, p 23). Oral evidence revealed that some of these students find in vocational education an escape from the tougher and higher academic level of the general secondary school courses which end up with the more difficult general secondary school baccalaureate examinations.

Another reason that some students prefer to follow up vocational studies is the inherited conception of vocational education as an easy and short cut route to the labour market which still prevails in Iraq. Large numbers of students are of low income families who believe that vocational education is a good choice for their sons, leading to employment which would benefit the whole family.

Social and economic status of students contributes not only to their enrolment in the secondary vocational education but also to their motivation and attitudes to learning skills. Such students are anxious to learn a trade for living. Oral evidence showed that in general such students possessed an interest in learning a trade and therefore positive work attitudes resulted.

6.5 Problems effecting quantitative development of vocational education

During the first decade of the Republic, very little attention was given to vocational education due to the uncertain

political situation and unstable economic conditions. In fact, vocational education deteriorated. This deterioration was due as well to the lack of adequate facilities and shortage of applicants. Therefore, one after another institutions closed down.

Table 41
Development of VE 1958-1968

Year	Schools	Teachers	Students
1958-59	8	166	2,089
1960-61	10	224	2,635
1965-66	7	214	1,598
1966-67	7	240	1,671
1967-68	9	280	1,877

Source: Ministry of Education: Annual Statistical Reports for the relevant years

The above table reveals that secondary vocational educational institutions were experiencing declining student enrolments in the first ten years of the Republic. In 1958-59 the population of secondary vocational schools was 2,089 but this fell to 1,598 in the mid-1960s. Primary school leavers were a major factor responsible for this drop in enrolment, because students and their parents chose more rewarding alternatives.

Following the Revolution of 17 July 1968, increasing attention was given to this sector by increasing its allocations and improving its facilities and provisions. Consequently student enrolment started to recover in relation to student teachers and the number of schools. Suddenly there was a sharp rise at the beginning of the 1970s, with the nationalisation of the oil industry and the increased implementation of the

government policy of diversification of the economy and industry. In both situations, there was a sudden rise in demand for technical skills and consequently a sudden increase of attention being given to vocational education as a potential source for generation of skilled manpower.

Since then spectacular growth has been achieved and the spread of vocational schools throughout the country contributed to expansion of this type of education where these schools came within reach of an increasing number of students. Map 2 shows the distribution of these schools over the provinces of Iraq. It has however to be noted that over a quarter of these schools are concentrated in Baghdad, the capital, which is in fact the centre of the economic and industrial activities of the country and includes more than 30 per cent of the total population of Iraq (approximately 15 million).

Despite the popularity which was gained by vocational education in the 1970s, many problems were created for manpower forecasting and educational planners in fact confused their estimates as illustrated below.

Most of Iraq's recent wave of manpower forecasting and quantitative planning activities started in the early 1970s and accelerated in the middle of that decade, and the Planning Board which was responsible for national planning in Iraq raised the targetted figure from 39,016 students in 1976-80 plan and to 74,290 and 132,733 students, but it was realised by both the Ministry of Planning and Ministry of Education that these figures would be very difficult to achieve because facilities were far from sufficient to cope with the proposed or targetted figures. For some time there was talk that students who scored less than 70 per cent in the intermediate school should join vocational schools. Soon the idea was discarded as it faced a variety of unanticipated educational and social problems despite the availability of adequate financial resources. Hence, another decision of the Planning Board (Decision No 2 of 12 April 1977) reduced the above target figure of admission during the 1976-80 plan period to

62,177. It is not our major issue here to indicate that lack of co-ordination is showing among the bodies mentioned above in respect of targets drawn up for vocational education. Also we do not argue here the evident lack of appreciation of the necessity first to provide adequately the required facilities before flooding the schools with students. Our major concern is, in this respect, to indicate that even the latter figure which was very decent, was far from being realised. Between 1976-77 and 1980-81, the total number of new entrants during those five years was 48,166, which represents 77.5 per cent of the Planning Board figure of 62,177, leaving an unreachd target of 22.5 per cent to be dealt with in the 1980-85 plan period. The plan indicated that during the year of this plan, i.e. 1980-81, the student numbers reached 15542 (Table 40) but the actual figures attained were 10,460, i.e. 67.3 per cent of the target.

Table 42

Target Students' Input and Output during the Five Year Plan
Period 1980/81 - 1984/85

Year	New Entrants			Graduates		
	Male	Female	Total	Male	Female	Total
1980-81	14,159	1,383	15,542	9,443	993	10,436
1981-82	18,482	2,853	21,310	13,289	1,237	9,887
1982-83	24,822	6,128	30,950	13,289	1,237	14,526
1983-84	32,828	13,736	46,564	17,699	2,557	20,250
1984-85	36,033	28,311	64,344	23,923	5,560	29,483
Total	126,324	52,393	178,717	73,618	10,964	84,582

Source: File No 5 of the Foundation of the Vocational Education, Iraq

Therefore it seems that the figure targetted for 1984-85 will be far from being realised if the current trend does not change, and some more realistic planning action must take place.

One document of the Foundation of Vocational Education attributes the recent fall in the number of new entrants to the vocational education to the attraction of the incentives and provision offered by the non formal vocational education (see FVE 1981, p 57). But this is only part of the truth. Other reasons which contribute to the lag of enrolment behind planned targets would be better explained within the context of "popularity" of some trades and schools.

6.6 Problems of Female Vocational Education

Enrolment of girls in vocational schools is a recent development in the history of vocational education in Iraq. It started in 1972-73 with 17 girls. Table 43 shows that new female entrants increased every year until their number reached 1,189 after 7 years (10 per cent of total new entrants). But in 1982-83 another sharp drop was noted as only 601 new girls entered the schools, representing only 6 per cent of the total new entrants in that year, as well as the year after when they reached 3.8 per cent of the total.

Table 43

Year	Total New Entrants	Girls
1972-73	1,557	17
1973-74	2,847	174
1974-75	3,702	271
1975-76	3,727	680
1976-77	6,545	515
1979-80	9,303	1,185
1981-82	11,848	1,189
1982-83	10,010	601
1983-84	10,460	400

- Sources: 1. Vocational Education in Iraq for 1976-77
(Ministry of Education)
2. Up to 1984 "Foundation of Vocational Education"
File No 2

Manpower forecasts must have been seriously affected by that since the number of new female entrants targetted was 1,383. It is estimated that in 1984-85, the number of female new entrants will reach 28,311. This figure will therefore be far from being realised if the current decline of female enrolment continues. This is more evidence that the target of 64,344 new entrants to the field of vocational education by 1984-85 is too ambitious and might prove unrealistic. However it has to be noted that in respect of enrolment of girls in vocational schools, Iraq is not unique in the problem of the limited role of females in this stream of education. All over the world, girls tend to enrol in courses which suit their natural physical abilities and job tendencies. Also social and cultural factors influence this matter. For example, in the USA, although more females than males are being educated in vocational programmes, more than half of the females are being educated in only one area, namely Home Economics, and about one third are studying office occupations, (see Evans & Herr, 1978, p 205). Commercial schools in the Federal Republic of Germany are generally for girls (Poignant, 1973, p 106).

In Iraq's case, many external as well as internal factors play a part in this problem. For example, some of these schools are far from centres of towns, so girls find it difficult to enrol there. Also, girls from middle-income families do not like to undertake manual work in productive factories. It is also important to note that in a society in which traditional social and cultural norms still impose divisions between the two sexes in many spheres, enrolment of girls in co-education, especially at this age, is still far from being acceptable to a large section of the community. In some provinces, families do not allow their girls to enrol in co-educational schools, and this situation affects the target numbers greatly. Table 44 provides the number of new female entrants in the vocational schools and their ratio to total new entrants in all Iraqi provinces.

Table 44

New Entrants to Vocational Education According to Province and Sex in 1983-84

Provinces	Total New Entrants	New Girl Entrants	Percentage
Nineveh	486	5	1.0
Salahiddin	196	-	-
Ta'min	678	22	3.2
Diyala	315	42	1.33
Baghdad:			
Rusafa	1,635	36	2.2
Karkh	1,451	115	7.9
Aubar	377	1	0.3
Babylon	293	11	3.8
Karbala	319	10	3.1
Najaf	474	2	0.4
Kadisiya	168	7	4.2
Muthanna	263	6	1.5
Thi Qar	266	6	2.3
Wasit	439	12	2.7
Misan	225	-	-
Basra	811	40	4.9
Dholk	218	-	-
Arbil	889	52	5.8
Sulaimaniya	958	35	3.7
Total	10,460	400	3.8

Source: Foundation of Vocational Education File No 2

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PART TWO

DESIGN OF THE STUDY

Chapter 7: The Sample and the Sampling Procedures

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8.1 The Questionnaire: Construction and
Content

8.2 Coding, Data Processing and Techniques of
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8.3 The Structured Interview

8.4 Coding and Processing of the Data

8.5 Techniques of Analysis Employed

PART TWOCHAPTER SEVENThe Sample and the Sampling

The availability of data throughout Iraq is inevitably limited by the massive and unorganised changes in the educational system. Furthermore, the lack of well-classified data related to the socio-economic development programmes which Iraq is witnessing, and related educational progress, put obstacles in the way of conducting any empirical study which has to deal with such data.

Therefore in designing the study, it was clear that if the requirements of both the general and specialised aims of the research were to be fulfilled and if any valid generalisations were to be made, a large and comprehensive sample was essential.

It was impossible to conduct an exhaustive survey into all secondary schools in Iraq. It was decided by the researcher to choose a representative sample. As one of the objects of the survey was to determine the social and economic background of the total secondary school population and their beliefs about the effectiveness of the educational system, five different areas of Baghdad were chosen to be included in the sample and these areas represent different social sectors of Iraq's social and economic background. This selection made a total of 49 secondary schools, amounting to 2.4 per cent of the total of 2027 secondary schools throughout the country. However, this selection provides a fairly large number of schools from agricultural and working class areas as well as middle and upper class sections. These 49 schools consisted of 19 schools for students of 17-18 years of age, which represents upper secondary level, and the rest provided lower secondary education of 16 year olds; in addition five vocational secondary schools were visited to observe and assess the organisation and administration of these schools and to meet selected students to ask them questions in relation to their study courses, their ideas and opinions as well as future career possibilities.

The principal limitations of the survey related to the number of schools and pupils it was possible to include, and their location: due to communication difficulties, these all had to be within about 150 kilometres of Baghdad. The results cannot therefore be taken to reflect the views of schools and pupils in more remote regions.

The sampling used in this study has taken into account the fact that Baghdad represents 33 per cent of the population of Iraq, which is estimated by the Ministry of Planning as 14,586,000 for the year 1983-4. Baghdad is not only a metropolitan city with a mixed population comprising various social groups from all parts of Iraq and representing all levels of the educational and occupational scales, but it fully represents the socio-economic and cultural conditions prevailing in the country as a whole. Every effort was made to ensure that secondary schools used in the survey were distributed equally to represent all social and economic levels, to provide the main objectives of the research with required answers.

In conformity with the objectives of the research, the third year of lower secondary schools and the sixth year in the upper secondary schools were chosen to provide the required data. Moreover, the survey was confined only to state schools, because there is no private schooling in Iraq - a situation which has existed since 1973 when the government nationalised the private sector schools and institutions.

According to these bases, the general frame of the target population, its borderlines and component parts were specified and defined. It consists of 49 secondary schools in Baghdad city and its outskirts, comprising a total of 1,307 students out of 108,194 enrolled in both final years of lower and upper secondary schools. Details of the target population from which the sample was drawn in secondary schools covered by the survey, by grade, level and sex for the academic year 1983-4, are given in Table 1. The information in this table is based on the figures derived from records of the Ministry of Planning and Ministry of Education.

To fulfil the requirements of both the general and special aims of the study, a stratified random sample by school was drawn from specified populations as follows:

1. 19 upper secondary schools from central and out-lying districts of Baghdad
2. 30 lower secondary schools from Baghdad chosen by district.

Table 45

Target population in Secondary Schools in Baghdad covered by the Survey for the Year 1984-85

Grade level		Baghdad	Total
Secondary 3	Boys	45,699	45,699
	Girls	25,000	25,000
	Total	70,699	70,699
Secondary 6 "Scientific"	Boys	13,485	13,485
	Girls	6,176	6,176
	Total	19,661	19,661
Secondary 6 "Literary"	Boys	12,335	12,335
	Girls	5,499	5,499
	Total	17,834	17,834
Total			108,194

Several procedures were involved at this stage which led to this sample being drawn. These need to be clarified before further details of the sample are presented. First, Baghdad was divided for sampling purposes into 10 major districts, 5 in each sector of the city which is naturally sited on both sides of the River Tigris. Eight of these districts lie within the city boundaries and range in social structure from working class areas to exclusive professional and managerial districts. The remaining two are composed of small towns and villages lying on the outskirts where the population consists mainly of farmers and agricultural workers.

The class within the school was used as the sampling unit at secondary schools at both levels, and the total number of students in each class was included in the selected sample.

A total number of 1,307 was set initially as a target for the sample size, to be drawn from secondary schools

around Baghdad. This was divided into 491 at upper secondary level and 816 at lower secondary level.

At upper level, nearly an equal share of 26-27 was allocated to each of the 49 schools in Baghdad. This was calculated on the assumption that schools at this level are single sex schools only and the ratio of boys to girls is about 3:2, also an equal share of 131 was allocated to each district and a total number of 49 classes was envisaged to be drawn from the 10 districts in Baghdad at this level.

Having decided on the general frame of the sample and assigned the share of each level, whether by class or by students, within each district, the next step was to specify the schools from the various economic backgrounds. Separate questionnaires were prepared for each age group within each district and at each grade level. Having completed the first stage, in which the sample was selected and the questionnaire data collected, an independent sample was drawn on smaller scale. This step was taken because it was clear that the original sample was large and would inevitably require more time, therefore to test the result of the sample on a fairly limited number as well as practicing coding and data processing. The researcher found it valuable to conduct a small scale survey to establish if the size of the sample would be manageable or not, and to provide a measure of verification by which the validity of the result could be tested. The discussion of this step and the procedures involved in drawing up the sample will be dealt with in Chapter Eight, which is concerned with the techniques of analysis employed.

Meanwhile, some measure of verification was needed to estimate the probability of the sampling error involved and to see how closely the sample did represent the student expectation from which it was drawn. Recent studies on student expectation from the present prescribed curricula and its relevance to their future careers does not exist. Neither has any work been done to measure the students' actual academic abilities in relation to their perception

of these abilities. Students also have no awareness of available careers in the world of work, and how much school can contribute to the career awareness and the students' preparation. Nevertheless, the only available indicator is the students' ability to manage to assess their curricula weakness points. This is an optimistic pointer for a better future as far as their education is concerned in relation to their career demands as well as social and economic development in Iraq. This was used to establish that the sample was closely representative of the target purposes, and provided a sound basis for assuming that other results and findings of the study are a good estimate of the students' demands.

CHAPTER EIGHT

The Questionnaire and the Survey

8.1 The Questionnaire: Construction and Contents

The nature of the study, the diversity of the data sought and the need to ensure some degree of anonymity were some of the reasons which favoured the use of the questionnaire rather than any other method of research. Furthermore, the size of the sample selected from different grade levels and areas in Baghdad, and the limited time during which the fieldwork had to be completed were other compelling reasons for choosing this method.

A questionnaire on biographical data was devised for each target population group, permitting the students' expectations and demands from the educational system at both levels in secondary education to be ascertained. The original version of the questionnaire was prepared in English then translated and printed in Arabic, with a suitable introduction for each educational level containing instructions on how to fill in the required answers and assuring respondents that the information provided would be treated confidentially and used for research purposes only. Two different questionnaires were prepared, one for each educational level, lower secondary and upper secondary, both with similar basic structures, except for some additional career items, and requests for opinions on the present prescribed curricula in the upper secondary questionnaire. Both the English and Arabic version of those questionnaires are included in Appendix 4 and 5. Items for use in the questionnaire were formulated on the basis of their relevance to the main concern of the study in seeking information on variables within the secondary education of the students which exert influence on their future career. The object was to cover such areas of secondary education and the possibility of diversifying it which the research literature had indicated as being of prime importance in this context.

Most of the items included in the questionnaire were questions for facts, seeking information of a personal kind

about each respondent. The first group of questions, which is of an identifying nature, called for responses about age, sex, father and mother's education and family income.

The question about father's work contained explanatory notes asking the respondent to specify the type of his father's work. The object was to obtain more specific responses about the actual jobs. These were later classified into categories and a six -point scale was constructed. In the question about father and mother's education, a four-point scale was used, ranging from illiterate person to a degree holder and including different levels of the educational ladder.

When formulating the question about family income, the nature and structure of the Iraqi family was taken into consideration and the respondent was asked to state the average monthly income of his family rather than his father only. Such an income was seen to represent the actual financial status of the family more accurately because there could well be other members of the family contributing to the family income, a common situation in many families in Iraq. The second part of the questionnaire was mainly concerned with the basic variable which represents the specific field of study - or the most preferred branch of study which students wished to follow in the future. Therefore it became necessary to identify the factors which led to the pursuit of their secondary education . These factors might be used for policy formulation to promote or control secondary education. It is also useful to examine the role of the socio-economic background of a student on the performance for an educational career and the factors that influence him in selecting the preferred field.

The role of career guidance in the choice of an area of study is another interesting aspect of the research. In Iraq, such facilities for secondary education exist only to a limited extent. But in order to channel the students to fields of study needed for economic development, career

guidance is an important mechanism. The degree of availability of such guidance, the methods and their usefulness should therefore be known if the restructuring of secondary education has to incorporate the planning of career guidance.

When formulating the question about academic interest, the nature of the curriculum was taken into consideration and the respondent was asked to state whether the curriculum answers their demands and expectations. Such information was seen as the most valuable variable in the questionnaire, because the main target of this survey was to prove that the present prescribed curricula do not prepare them adequately for their future careers.

The questionnaire contained other items in this context, seeking factual information such as the students' opinions on introducing vocational courses within the curriculum when they decide whether the course of their study is adequate or not, and their future career choice. In addition it included another variable about the students' reasons for choosing jobs, whether their fathers' aspirations influenced them, or whether there were other factors.

These were the main groups of items in the questionnaire, designed to obtain data on the validity of the school curriculum within the two educational levels which were to be used to elucidate empirically the problem of efficiency in the school curriculum in meeting the demands of socio-economic development and students' career demands in Iraq.

8.2 The Survey: Administration of the Questionnaire and Collection of the Data

After the sample had been defined and specified and the questionnaire constructed, the investigation commenced. The fieldwork began in November 1984 and took nearly three months to complete, a period during which all the initial preparations were made before the questionnaire was administered and the data collected. The initial preparation which included sampling procedures, preparing the questionnaire for printing

and seeking permission from the official bodies to conduct the survey - as well as the administration of the questionnaire in the secondary schools, was carried out by the researcher personally, in Iraq. Teachers and headmasters from the schools covered by the survey helped with the administration of the questionnaire and the collection of the data, with the researcher supervising the operation at all stages. The following procedures were used in collecting the data at these levels in Baghdad:

1. Questionnaires were distributed to all members of the class of secondary level required.
2. Detailed instructions were given and the importance of objectivity in the answers was emphasised.
3. The items contained in the questionnaire were read aloud one by one while the respondents wrote down any comment needed to explain these items.
4. Any query raised by the students about any one of the items was clarified there and then, before moving on to the next item.
5. Respondents were asked to check their questionnaires to make sure that all the items were answered properly later on.
6. Finally, respondents were asked to hand in their completed questionnaire next day to the person who shared the research and the administration of the questionnaire in the classroom and he then checked the completion of the questionnaires.

The survey was administered as required, in spite of all the difficulties which faced the researcher, and the required data was collected from the selected sample. The questionnaires were then classified, packed and brought to England in preparation for the second major stage, the coding and processing of the data.

8.3 The Structured Interview

One of the most important steps taken by the researcher, apart from the questionnaires, was the structured interview which involved different people who were heavily involved in educational decision-making and planning.

All the questions were prepared by the researcher in advance, to serve the aim of the interview successfully and a well-structured introduction was forwarded with the list of questions to all of the interviewees. Each question was studied by the researcher very carefully to be sure that there was a strong relation between the main theme of the research and the questions.

The main line of the interview was to establish a strong basis to further support the argument put forward by the researcher.

When putting down questions for people who have these positions, the researcher had to bear in mind what will make sense to the interviewee and what will be most acceptable to him. Therefore the questions were linked strongly to the topic of the research.

The most important question asked was about the main characteristic of secondary education in Iraq, and what is the strong relation between this level and socio-economic development on one hand and higher education on the other. Because of their relation to educational decision-making and planning, their opinions and beliefs of adding vocational courses are very important to know. Did they feel it was feasible to add vocational courses to the existing curriculum or should they be taught in separate schools?

Many other questions needed to be answered, including some which created a very sensitive atmosphere between the researcher and the interviewee in which some provided little response to each question. The analysis of this interview will be presented in Chapter II, and both English and Arabic versions of these questions are included in Appendix II.

8.4 Coding and Processing of the Data

After the collection of the questionnaire from the students at both secondary levels, the next step was to transfer the questionnaire data on to punch cards, which required the coding of all the responses entered in Arabic by the sample subjects at both levels. A numerical code was constructed and responses were coded in the column designated for this purpose in the Arabic version of the questionnaire. An identifying code number was given to each respondent in each of the ten districts of secondary schools in Baghdad, in addition to the numbers assigned to each of the questionnaires denoting schools and students number.

Questions on father's education and his work as well as mother's work and education were ticked on their respective four or seven point scales depending on their rank and classification, classification into broad categories or rank order of the responses to all other items on their education choice and ideas coded as well in numerical order and arranged into ranked order scales. With regard to father's occupation, seven specific categories of job were coded which represented a rank order on a seven-point scale. Monthly family income was grouped into a five-point scale.

Having completed the coding operation, which was carried out personally by the researcher, who coded all the 1,307 questionnaires, the data was recorded on punch cards and then checked and verified against the original coding. At this stage of processing the computer was used and the results were tabulated according to the different variables representing the social and economic background of the respondents as well as their educational and employment demand. Moreover, use was made of the computer for working out some of the combinations between these different variables of the questionnaire.

Table 46Number of Sample Collected and Coded for Processing and the Percentage by Grade Level in Baghdad City

Grade Level	Sample	Baghdad	% of Sample Coded
Secondary 3	Collected Coded	816 816	100
Secondary 6	Collected Coded	491 491	100.
Total	Collected Coded	1,307 1,307	100

8.5 Techniques of Analysis Employed

Proportions, means and standard deviations were the major techniques of analysis, by means of which statements of hypotheses and deductions were tested. The variables chosen to represent the social background and educational quality of the system in Iraq, the tests of verification and the level of significance used in the process of analysing the results and testing their validity need to be stated and clarified at this stage before the above mentioned techniques are discussed.

Bearing in mind what the research literature had indicated and using the data obtained by the survey, six major variables comprising occupation and education of father, income, mother's education, and her work, were selected and treated in the analysis in order to elucidate the socio-economic background of the respondent. Four of these variables (father's education and occupation, family income and mother's education) were considered to be of prime importance in affecting the educational career choice of their children and thus in exerting a powerful influence on their academic interest which affects their future plans greatly.

A seven-category scale of occupations was constructed on which the sixty-seven specific categories of jobs were grouped and arranged in rank order. The lowest point of the scale referred to unskilled workers, and comprised general unskilled workers, grocers, small traders and shop owners, while the second point represented the professional and managerial group, for example doctors, university lecturers, teachers, lawyers, engineers, chemists, pilots, company directors and bank managers. The other five groups represented the following: died and retired fathers in the third and fourth points, skilled workers, including drivers, mechanics, technicians and craftsmen in the fifth point, farmers in the sixth point, and higher business interests - land owners, contractors, big-business men, and small company owners - were included in the seventh point. Secretaries, book-keepers, cashiers, superintendents and heads of department in any government offices were included in point two which represented all government employees. The economic factor was represented by family monthly income. This was seen in relation to the actual economic status of the family and included father and mother earnings and everything else that the family earned in one month, and this was grouped and arranged in a rank order on a five-point scale, with an interval of 200 Iraqi Dinars.

With regard to the three category scale of educational level used for father's education, and the four category scale for mother's education, the Unesco classification was used as a guideline after being adapted to the conditions prevailing in Iraq. With the regard of future choice of student's career, a 14-point scale was used to identify their choice, the first point included engineering, and the highest, fourth, point included all medical careers starting with a medical doctor and pharmacist and ending with psychiatrists. Frequencies and results are presented according to their position on the scale. Means and standard deviations were calculated by class interval and their values represent the appropriate points of the scale, as shown in Table 46.

TABLE 47 Mean and Standard Deviation of variables representing the socio-economic background of respondents in secondary education in Baghdad

Variables	Grade Level	
	Secondary 3	Secondary 6
<u>Father's work</u>		
Mean	2.11	2.064
Standard deviation	1.05	1.05
<u>Father's Education</u>		
Mean	1.9	1.8
Standard deviation	0.79	0.79
<u>Mother's Education</u>		
Mean	1.58	1.7
Standard deviation	0.77	0.77
<u>Family Income</u>		
Mean	313.63	321.19
Standard deviation	135.23	134.66

Appendix 13. contains a key to the rank order followed in classifying the different categories within each variable used in the analysis.

Table 48

Percentage Distribution of Father's and Mother's Education by Grade Level in Baghdad

Father's Education	Secondary 3	Secondary 6
University	27.89	27.90
Secondary	37.47	39.51
Primary	34.64	32.59
Total	100.00	100.00
Mother's Education	Secondary 3	Secondary 6
University	9.12	6.35
Secondary	31.77	31.76
Primary	56.28	35.33
None	2.83	6.56
Total	100.00	100.00

CHAPTER NINE

AN ANALYSIS OF STUDENTS' OPINIONS

- 9.1 Introduction
- 9.2 Hypotheses
- 9.3 The students' opinions (16 year olds)
 - 9.3.1 Students' academic interest
 - 9.3.2 The role of different sources of help in the choice of their educational career
 - 9.3.3 Students' desired professions
 - 9.3.4 The degree of adequacy of the school curriculum
 - 9.3.5 The degree of agreement of adding vocational courses to the present curriculum
 - 9.3.6 Vocational education . effect on students' future plans
 - 9.3.7 The extent of the relationship between present curriculum and future plans and its effect on students' career choice
 - 9.3.8 The effect of adding vocational courses on students' career choice
 - 9.3.9 The adequacy of the school curriculum and its relation to their career choice
 - 9.3.10 Advice influence on students' career choice
 - 9.3.11 The different sources of advice and its effect on students' career choice
 - 9.3.12 Students' career choice according to their academic interest
 - 9.3.13 The effect of the adequacy of the school curriculum on the students' academic interest
 - 9.3.14 The effect of adding vocational courses on their academic interest
 - 9.3.15 Sources of help and students' opinions of adding vocational courses to the academic curriculum and its relation to the sex of the students
- 9.4 Summary

CHAPTER NINE

9.1 Introduction

With the objective of identifying the factors which contribute to finding a solution to the dilemma that Iraqi secondary education has been suffering for a long time, as well as reducing the gap between secondary education and its relation to the socio-economic development which Iraq witnessed over the past fifteen years, an investigation was carried out as follows.

The attitude of the students towards their present secondary education system and the expectation of their future career choice, also their opinions about adding vocational courses to their present curriculum have been analysed through a survey conducted among 1,316 students; 816 at 16 years old (third year of secondary education) and 491 at 18 years old (sixth year of secondary education).

The attitudes of teachers towards the adding of vocational studies to the present secondary school academic curriculum, and their co-operation, their suggestions, the which would be posed by this addition, in their opinion, have been analysed through a similar survey conducted among 74 teachers in secondary schools.

The opinion of the administrators about the present system, their suggestions and expectation and future predictions for the secondary education system if there is to be any change, have been the subject of the survey conducted among numbers of them. The results are discussed in the following.

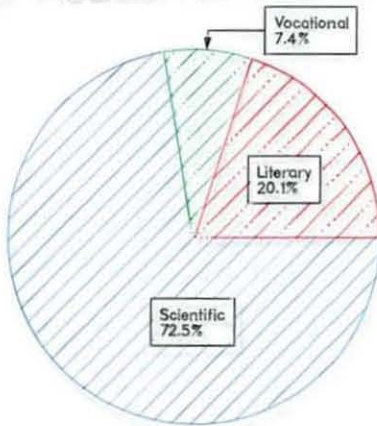
9.2 Hypotheses

- 1) The school curriculum is adequate to meet the students' future plans.
- 2) The students' career choices are logical and realistic on one hand and adequately respond to socio-economic needs and demands on the other.
- 3) The schools provide students with adequate opportunities and experience for career exploitation and career preparation.

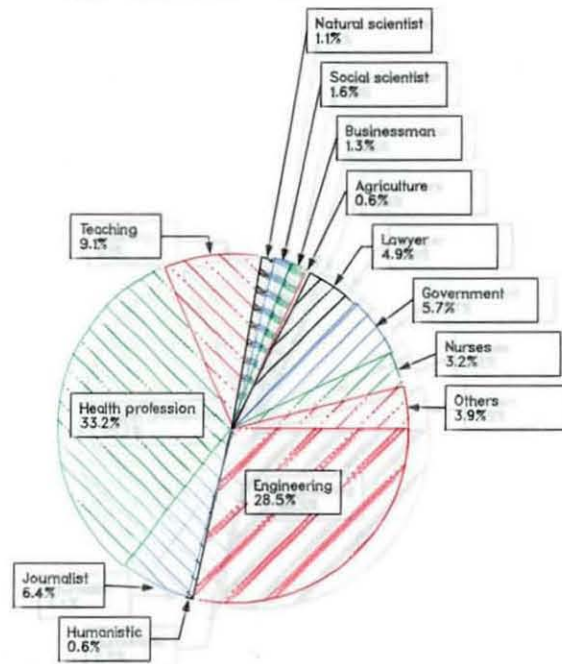
Fig 16: Distribution of students responding to questionnaire

Fig 16 Distribution of students School 1

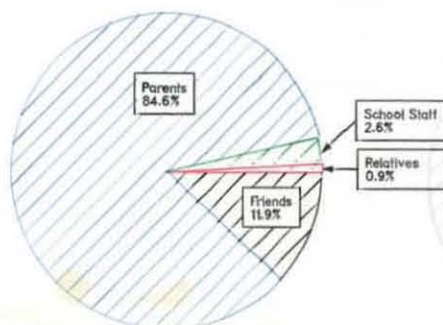
a: Academic interest



b: Career choice



c: Source of help



c: Source of help



4) There is a strong relation between present school curriculum and their future career choice.

9.3 The Students' opinions on secondary education

Before making any attempt to formulate a development plan for secondary education which relates to socio-economic development, it is very important to diagnose the variables that relate the students to the secondary education, and their demands from the system in relation to their future plans.

The factors that determined the demand for the changes in secondary education, the role of socio-economic backgrounds of the students and its effect on their demands and decisions; the role of the careers guidance in the choice of an educational career, the popularity of fields of study, the degree of satisfaction with the available course of study, the relevance of school curriculum, adding a vocational course to the present curricula and its effect on their future plans - each of these aspects is discussed below on the basis of the students' response.

9.3.1 Students' academic interests

The students were asked about their academic desire after they completed lower secondary stages of education; whether they desired to study scientific, literary or vocational subjects. The analysis yields the following results: Out of 811 who responded, 588 students (73 per cent) chose to study a scientific curriculum; 163 (20 per cent) made their choice following a literary stream; and only 60 students (7 per cent) prefer to do a vocational study.

The response is more or less consistent in all sub-classes of the students considered. There are, however, some interesting and significant deviations from the normal trend in certain classes of students. For example, it is noticed that a relatively high percentage of students indicated that:

a) father's education had a great influence on their choice. As Table A1 shows, while 32 per cent of the students from primary education group chose the scientific stream as their

academic future study, the percentage was as high as 35 per cent in the case of students belonging to the secondary education group and 33 per cent from the university group.

b) Family income - as shown in Table A1, 27 per cent is the highest percentage of students who made up their minds to study scientific subjects, and comes from families with a very high income (more than £1,000 monthly). The percentage is lower (17 per cent) in the case of the students whose family income was less than £500). Literary study, as shown in the Table, is not favoured by students whether their family income is high or low. (All details are shown in Table A1 in the Appendix).

c) Mother's work - another apparently curious fact is observed when one analyses the response of the students grouped according to their mother's work. It is seen that 50 per cent of the students who have the privilege of working mothers chose a scientific course, and 50 per cent of the students with housewife mothers chose the same.

d) Sex - the sex of the students appears to play a strong role in making their choice of study. The result of the analysis shows that males are more interested than females in studying science. The percentage distribution (61 per cent) of males choosing to study science, compares with 39 percent for females.

e) Sources of help - it is seen that the students who get advice from somebody, especially their parents, prefer to choose a scientific course. Eighty seven per cent of the students in this class, who get parents' advice, chose to study sciences.

9.3.2 The role of different sources of help in the choice of their educational career

The proper choice of the field of study by students according to the demands of society, the labour market, and their personal capabilities, aptitudes and interests is important, not only for the individuals concerned, but also for the future of the country as a whole. Hence the necessity of having sources of adequate and authentic advice for students to be aware of their choice of future career.

The survey revealed that out of 808 students 461 (57 per cent) received help for directing their career choice; 347 (43 per cent) did not get any sort of advice from any source.

The result of the analysis is consistent in all sub-classes considered. There are, however, some significant differences in certain cases. For example, it is seen that out of 461 students, 390 (84 per cent) got satisfactory advice from their parents and 55 (12 per cent) of students found their friends a good source of advice. The survey shows that school staff had little influence, or offered help to as little as 3 per cent of students, while students' unions or youth centres have no influence on their choices. Therefore, Table A2 shows that the majority of students depend on their parents in seeking any advice related to their educational choice, friends and relatives come next.

a) Father's work It is seen that the percentage of students who get satisfactory advice reached its highest figure in the class of fathers in government employment (67 per cent) and those of self-employed fathers (24 per cent). The details of the results concerning the type of the advice that students get are given in Table A3 in the Appendix.

b) Family income Also the analysis revealed that the students from high income groups (nearly £1,000 monthly) get advice as high as 28 per cent, and students from low income families (less than £500 monthly) received advice as low as 13 per cent.

c) Sex As far as the students' sex is concerned, the analysis revealed that the students who received a parent's advice in making up their choice, 221 (57 per cent) are male students and 166 (43 per cent) are female.

d) Academic interest Parents' advice has great influence, more even than friends, on students making up their minds on the educational stream they wish to follow in the upper secondary level. Of those wishing to follow sciences, 314 (81 per cent) have parental support, whereas of those choosing literary studies, 15 per cent have the encouragement of their

parents, and as few as 4 per cent of those choosing vocational subjects have parental advice.

9.3.3 Students' desired profession

The distribution of the students according to their desired profession (Table A4) indicates that engineering and health professions are the most popular professions among the students. Out of 812, 233 (29 per cent) of the students under survey wanted to take engineering as their career after completion of their secondary education; 271 students (33 per cent) chose the health profession, which includes medicine, dentistry and pharmacy. Among other professions, 74 students (9 per cent) desired to accept teaching as a profession, 52 (6 per cent) wanted to be journalists, 47 students (6 per cent) wished to follow a military career, 26 (3 per cent) expressed an interest in nursing as their future profession, and only 5 students (1 per cent) wanted to be involved in agricultural work.

In checking the socio-economic background of the students, we noticed that engineering and health professions were also the most popular career chosen by students with strong economic backgrounds.

a) Father's work The highest percentage arose in the group of students whose fathers were government employees, of whom 54 per cent chose engineering, and among children of the self-employed (30 per cent). In the case of the health profession a similar situation occurred, with a preference expressed by 70 per cent amongst students with fathers employed by the government and 17 per cent from the self-employed sector. The details of these results are given in Table A5.

b) Family income This also influenced students' choice noticeably; 28 per cent of the students from a family with income of nearly £1000 per month expressed their desire to study engineering, and 27 per cent preferred to enter the health professions. However, in the case of students from families with less than £500 income per month, only 15 per cent chose to study engineering and 13 per cent chose to specialize in health.

c) Sex The desired profession varied according to the sex of the students as well. The engineering profession is not highly popular with females. While 69 per cent of the students who chose engineering as their future profession are males, we notice that only 31 per cent are females. In the case of health, 57 per cent of students expressing this preference are males, and 43 per cent are females. As shown in Table A5, teaching is a popular profession for female students - 97 per cent of the students choosing this career are females. The relevant figures are shown in Table A5.

9.3.4 The degree of adequacy of the school curriculum

Students were asked whether they considered that the secondary school curriculum was adequate in relation to their future plans. The analysis of their responses gives the following results (detailed in Table A6). Of 809 students, 262 (32 per cent) think that their secondary school curriculum is adequate; 522 (65 per cent) of students think it is inadequate; leaving 25 students (3 per cent) who indicated that they are not sure.

The percentage distribution of the students according to their opinions regarding the adequacy of the secondary school curriculum is similar in most of the sub-classes considered, as is evident from Table A4 in the Appendix.

a) Father's work It is seen that the percentage of students who find their secondary school curriculum inadequate is greatest in the case of children of government employees (57 per cent). In the case of children of self-employed fathers, the corresponding figure is 24 per cent).

b) Mother's education The percentage distribution varies noticeably according to mother's education. The highest percentage (55 per cent) of those thinking the curriculum is inadequate are those whose mothers have only a primary school certificate, whereas the percentage is 30 in the case of those with mothers graduating from secondary school. Because

of the limited numbers of students having a university graduate mother, only 58 students out of 522, the percentage is very low (11 per cent).

c) Family income Students who come from a family with high income have different opinions about the adequacy of the secondary school curriculum; 29 per cent of students from high income families (nearly £1,000 monthly) think the curriculum inadequate, and only 18 per cent of students from a low income family (less than £500 monthly) think so.

d) Sex It is seen that out of 519 students, 316 (61 per cent) males think that their secondary school curriculum is inadequate (as Table A7 indicates) whereas 203 (39 per cent) of female students have the same opinion.

9.3.5 The degree of agreement on adding vocational courses to the present curriculum

The distribution of students according to their opinion about whether additional vocational elements in their education would be an improvement is shown in Table A . Their response was analysed and gives the following results. Out of 816 students, 566 (69 per cent) preferred adding vocational courses to their present curriculum, and 256 students (31 per cent) disagreed with the research.

If the main reason was to learn from the students who responded to the question whether they agreed or not to adding vocational courses, the percentage distribution of them according to their opinions is almost similar in all sub-classes considered. Table A9 indicates that out of 560, 476 (85 per cent) of the respondents agreed. Only 8 (1 per cent) were against the idea, and 76 (14 per cent) were unsure.

a) Father's work Table A8 in the Appendix shows some significant deviations . It is seen that the percentage of students who agreed to adding vocational courses to their present curriculum is greatest in the case of children of

government employees, 57 per cent of these students. In the case of children of self-employed fathers, the figure was 24 per cent.

b) Mother's work The similarity of percentages as related to mother's work can be seen - 55 per cent in the case of students with housewife mothers, and 45 per cent of those with working mothers. The variation in response according to income range is shown in Table A8 of the Appendix.

c) Family income It is seen that students from higher income families support adding vocational educational courses (29 per cent agree) to a greater extent than those from lower income families (19 per cent agree).

d) Sex of the students The percentage distribution of the students varies according to sex. Of 474 students, 285 male students (60 per cent) agree to adding vocational courses to the present curriculum, and 189 female students (40 per cent) agree. Only 44 male students (58 per cent) out of 76 students do not have any opinion, as 32 females (42 per cent) think so.

9.3.6 Vocational education's effect on students' future plans

As shown in Table A10, among 810 students asked to indicate their opinion if introducing vocational courses would affect their future educational choices, 538 (66 per cent) thought it would not, 243 (30 per cent) thought it would affect them "less rapidly" and 29 (4 per cent) thought it would affect them more rapidly.

a) Father's work Opinions varied depending on the sub-classes of father's occupation. According to Table A11, the highest percentage of students thinking the introduction of vocational education would not affect their plans much are children of government employees (57 per cent) and those of the self-employed fathers (25 per cent). Details of these figures are given in Table A6 in the Appendix.

b) Family income The percentage distribution of students varies slightly according to family income. With high income

32 per cent of students think the proposed change would not affect them very much, and only 20 per cent of those from low income families share this opinion. Another apparently curious fact is observed when one analyses the students' response in relation to -

c) Sex Sixty per cent of students thinking the effect of introducing vocational education on their plans would be less rapid are male, and 40 per cent female.

9.3.7 The extent of the relationship between present curriculum and future plans and its effect on students' career choice

The base for measuring the degree of effect on the students' career choice by the relation which exists between the present curriculum and their future plans has been found by analysing the responses to the relation between the two variables in the questionnaires. Table A12 in the Appendix gives the percentage distribution of this effect. The row of the table corresponds to the "career choice" and the column corresponds to the "students opinion" whether there is a relation or not.

As has been indicated before, engineering and health were the most popular careers among the students which is illustrated also in this table.

Students opting for engineering and health as professions think there is no effect whatsoever on their choice (41 and 33 per cent respectively).

As for students whose choice is teaching, 16 per cent think there is an effective relationship between the present curriculum and their future plans, and 10 per cent of students choosing an arts profession agree.

9.3.8 The effect of adding vocational courses on students' career choice

Students were asked whether they thought adding vocational courses to their academic curricula would affect their career choice or not. As indicated in the previous tables, engineering and health are the two careers preferred by most students, therefore in Table A13, the percentage distribution indicated that 33 per cent of students choosing engineering think the effect of adding vocational courses is "less rapid" on their educational career choice. Of students who choose health as their future career 27 per cent are of the less rapid opinion, as are 8 per cent of potential teachers, and 5 per cent of future government employees. Out of the total of 760 students, 551 (72 per cent) think the effect of adding vocational courses to the present curriculum would be "less rapid".

9.3.9 The adequacy of the school curriculum and its relation to career choice

The students were asked about the degree of adequacy of their school curriculum in relation to their career choice; the analysis as shown in Table A14 revealed that 40 per cent of students choosing engineering as a future career think that the school curriculum is inadequate, and only 6 per cent think it is adequate. As for those choosing the second most popular field, health, 30 per cent of students think the curriculum is inadequate and 40 per cent consider it adequate.

9.3.10 Advice influence on students' career choice

Students were asked whether they got any help in directing their career choice or not. The analysis of the responses in Table A15 gives the following results. Out of 807 students, 466 (58 per cent) indicated that the advice they have received did really help them in making their career choice, and 341 (42 per cent) thought they made their choice without any advice.

For the students who decided to specialise in engineering or health, it is seen that the advice offered to them by any

source, whether their school staff or their parents, has a noticeable effect on their choice (30 and 38 per cent respectively). The students who choose nursing as their career choice think that they have never been influenced by any source of help (6 per cent) as well as the government employee choice (8 per cent).

9.3.11 The different sources of advice and their effect on students' career choice

Table A3 in the Appendix indicates that of 807 students only 466 (58 per cent) get help in making their choice of career. Table A16 shows the different sources of help the students have. The analysis reveals that of 463, 390 (83 per cent) get parents' help and 31 per cent of them made their choice engineering and 42 per cent chose health.

9.3.12 Students' career choice according to their academic interest

To estimate the students' career choice for examining them according to their academic interest, this distribution has been found by analysing the responses to the questionnaires. Table A17 in the Appendix gives the percentage distribution of the students' actual academic interest according to their career choice. The row of the matrices corresponds to the students' career choice and the column corresponds to academic interest.

It is seen that, as mentioned in previous Tables (A1), of 811 students surveyed, 588 (73 per cent) have an interest in specialising in scientific studies, 163 (20 per cent) of the students preferred to continue their education in a literary stream, and only 60 (7 per cent) wished to specialise in vocational studies. Therefore the majority of students responding to the questionnaire made their choice to study sciences for the purpose of their future plans. Thirty eight per cent of the students who chose to study sciences preferred to study engineering; 45 per cent, as shown by the Table, chose to study subjects in the line of the health profession, and only 4 per cent wanted to study nursing or qualify as a technician. However, 36 per cent of the students who

preferred to study a literary course wanted to be teachers, and 29 per cent made up their minds to enter the field of the arts.

9.3.13 The effect of the adequacy of the school curriculum on the students' academic choice

As indicated in Table A18, of 809 students surveyed, 586 (72 per cent) chose to study sciences, 162 (20 per cent) chose literary studies, and only 60 students (8 per cent) wished to study vocational courses.

The percentage distribution of the students according to their opinion regarding the degree of the adequacy of the curriculum and its effect on their academic choice is as follows. Twenty five per cent of students choosing scientific study think the curriculum is adequate, whereas 72 per cent disagree, and only 3 per cent are unsure. Students with a preference for literature have a contrasting set of opinions - 34 per cent felt the curriculum inadequate and 65 per cent thought it adequate.

9.3.14 The effect of adding vocational courses on students' academic interest

The distribution of students according to their opinion about the effect of adding vocational courses within the present curriculum on their academic choices is shown in Table A19. Seventy two per cent of students deciding to study scientific courses believe they would be affected less rapidly, while only 4 per cent think its effect on their decision would be "more rapidly". Students choosing a literary field think the effect is not great but "less" (29 per cent) and 67 per cent "at the same rate".

9.3.15 Sources of help and students' opinions on adding vocational courses to the academic curriculum and its relation to the sex of the students

Before discussing the results of the analysis of Table A20 we have to mention what has been stated in previous tables A5, that students have been divided in their opinion about

the effect of adding vocational courses to their present academic curriculum, also not all the students are getting the same amount of advice in choosing their future career. Therefore in Table 20 in the Appendix, percentage distributions are given of the students in relation to their sex as to how they express their opinions as to the effect of adding vocational courses to the present academic curriculum and the amount of advice they get from different agencies. The row of matrices corresponds to the source of help and the column to the effect of the vocational courses. The first part of the Table is devoted to the male opinion and the second part to the female. The analysis revealed that of 241 male students, 172 (71 per cent) think that adding vocational courses to their present curriculum does not effect their future plans, and 82 per cent of the 172 students got their parents' advice, whereas of 182 female students, 122 (67 per cent) think the same, and 84 per cent of the 122 got parents' advice.

9.4 Summary

It may be observed in the above analysis that the most important factor determining demand for higher education was to achieve the career they intended to study for. There was a lack of any organized guidance needed by students in choosing their future career, and the analysis revealed that the majority made their career choice in the medical and engineering professions with no consideration of technical or agricultural professions. Therefore the orientation towards careers needed by the country for its development is lacking. As far as the school curriculum is concerned, a great percentage of the students indicated that the rigidity of the curriculum disappointed them, therefore improvements in the structure and content of the curriculum are advisable. Traditional curricula, the students believe, must give way to a vocational course to provide better knowledge and possible experience for them. This could easily diversify students' attitudes towards different types of skills and experience.

The analysis revealed also that the information the students get in respect of their educational specialisation depended almost entirely on parents' advice, which, most of the time, is far from reflecting the reality of needed specializations and needed skills.

Finally, when students were asked about the effect of adding vocational courses on their educational attainment, the majority thought it would not affect them. This indicates that, because the students are the most important agents in the educational process, and by providing a suitable education through better interaction between the institutions and authorities, the students and the labour market, a more secure career future might be achieved.

CHAPTER TENStudents' Opinion (18 Years Old)

- 10.1 Academic specialisation
- 10.2 Reason for undertaking their present study
- 10.3 Reasons determining their choice of study courses
- 10.4 Distribution of students according to their desired profession
- 10.5 The role of career information in the choice of educational career
- 10.6 Degree of relevance of present study to future plans
- 10.7 Degree of curriculum planning and its effect on students career choice
- 10.8 Distribution of students' opinions of willingness to do training courses
- 10.9 Students' opinion in relation to their future career choice
- 10.10 Relationship between present study and future education
- 10.11 Effect of students' present studies on career choice
- 10.12 Degree of dependency of future plans on success in their present studies
- 10.13 Sources of advice
- 10.14 Degree of curriculum relevancy to present study
- 10.15 Degree of curriculum relevancy to career choice
- 10.16 The importance of educational advice to academic interest and career choice
- 10.17 Students' opinions on doing training courses
 - 10.17.1 Overall sample
 - 10.17.2 Degree of relevance
 - 10.17.3 Educational relationship
 - 10.17.4 University alternatives
- 10.18 Summary

10.1 Academic specialisation

The distribution of the students according to academic specialisation (Table B1) indicates that the scientific stream is the most popular and students enrolled in it. Out of 491, 369 (75 per cent) of students already study the scientific curriculum. Twenty five per cent (122 students) study literary subjects at this level of secondary education.

The two streams are more in demand as specialisations in Iraqi schools than vocational studies.

The result of the analysis is consistent in all sub-classes considered. There are, however, some significant differences in certain cases. For example, in the case of;

1) Father's work It seems that students are affected by father's employment. The effect is greatest for the wards of government employees (52 per cent) and those of the self-employed (31 per cent). The details of the results concerning students' academic specialisations are given in Table B1 in the Appendix.

The analysis revealed that

2) Family income also influences students' choice of their specialised studies. Twenty five per cent of students from families whose monthly income approaches £1,000 enrolled in scientific studies, while only 15 per cent of students from low income families do so.

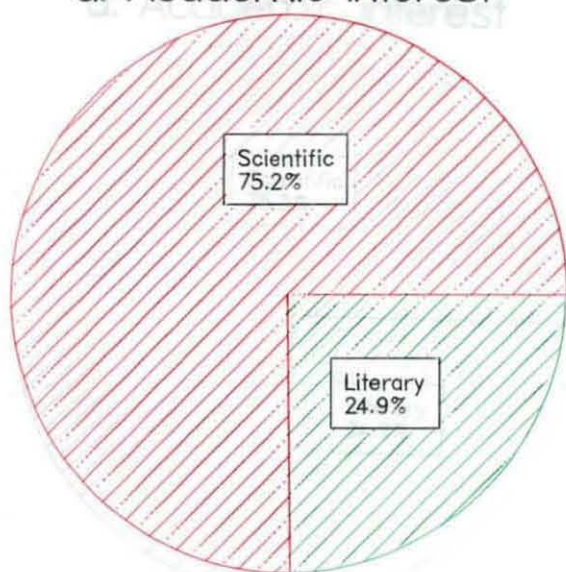
3) Sex The percentage distribution varies noticeably according to the sex of the students. It is seen that 72 per cent of students involved in scientific study are male, whereas only 28 per cent are female.

10.2 Reasons for undertaking present study

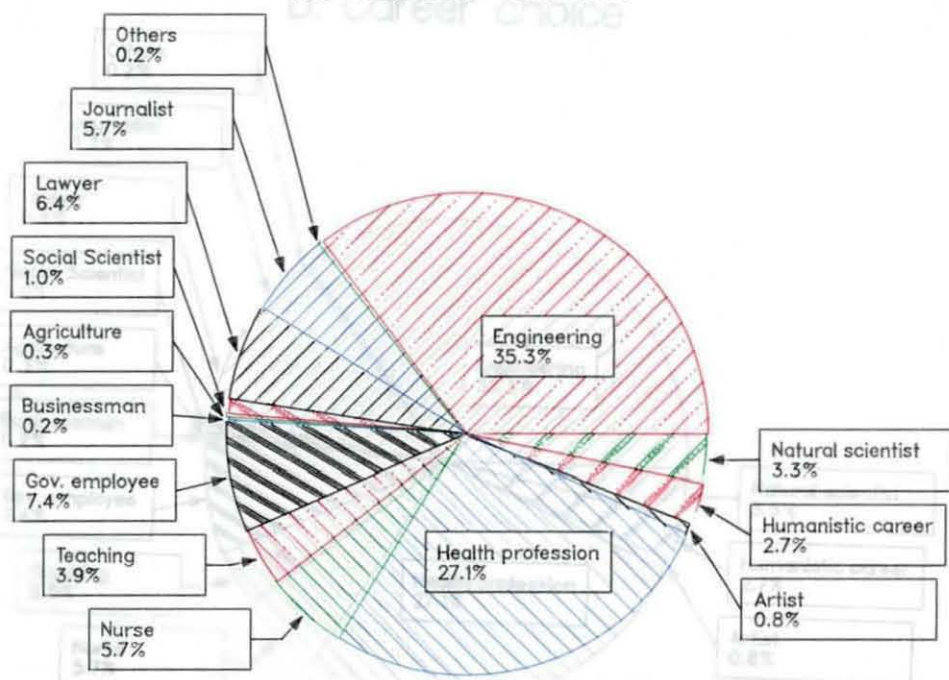
Table 1 in Appendix B shows that out of 485 students 369, (76 per cent) chose to study science and 116 (24 per cent) enrolled in the literary stream. Further, when asked reasons for their choice, as indicated in Table B2, 6 per

Fig 17: Distribution of students responding to the questionnaire
School 2

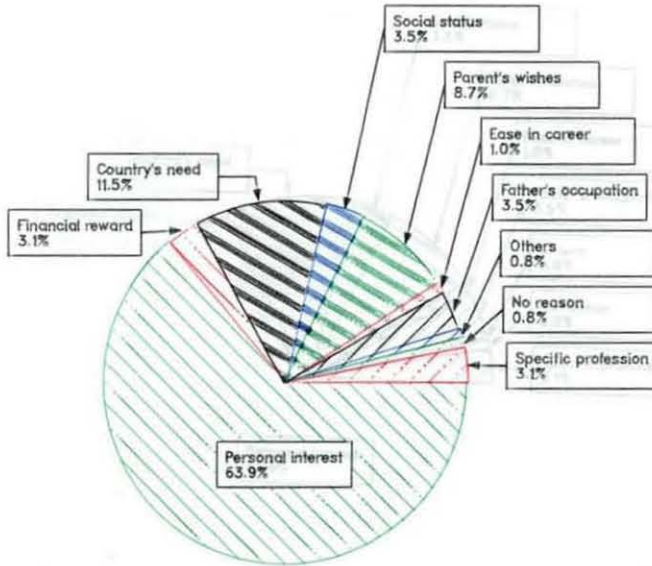
a: Academic interest



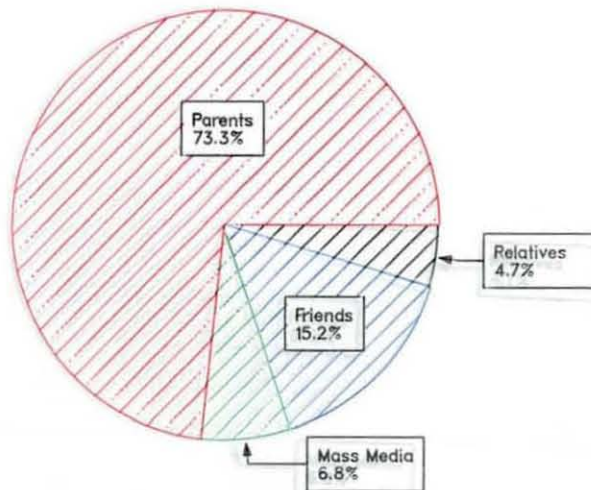
b: Career choice



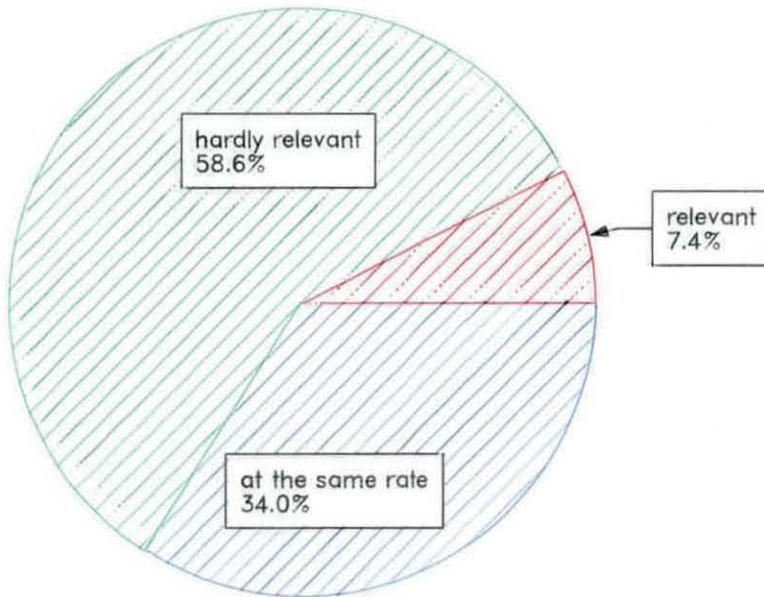
C: Reasons for their educational courses



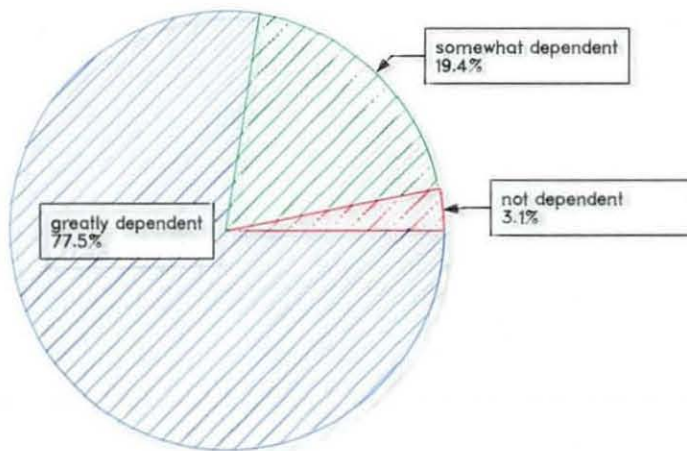
D: Source of career information



e: Educational relevancy



f: Degree of the dependence of career choice on success in their present study



cent of the total answered for their personal interest, 11 per cent for the country's needs, and 8 per cent for their parents' wishes. Equal percentages arose for qualification needs and financial remuneration.

10.3 Reasons determining their choice of study courses

Table B3 in the Appendix shows that 64 per cent of the students considered their demand for continuing education and undertaking such courses arose from "personal interest" mainly. The motive of "country's need" came in second place, and only 11 per cent of the students were motivated by this reason. Eight per cent of the students indicated that their choice was just to answer their parents' wishes, while social status and father's occupation variables rank fourth on the list of the distribution of percentages as shown in Table B3; the percentage in both variables was only 3 per cent of the students who stated that there were these motives for their choice. "Need for particular profession" and "financial remuneration" were fifth in the distribution of the percentage for their choice.

The response is more or less consistent in all the sub-classes of the students considered. There are, however, some interesting and significant deviations from the normal trend in certain classes of students.

a) Father's work For example, it is noticed that a high percentage of students whose fathers were government employees indicated that they wished to continue their education for their own personal interest only (53 per cent). As Table B3 shows though, 28 per cent of students with self-employed fathers indicated they made their choice for personal interest only.

b) Family income Family income has its own influence as well on students choice. Table B3 clearly shows that a higher percentage of students belonging to the higher income group (nearly £1,000 monthly) indicate that they are continuing their studies for personal interest motives only (29 per cent) while 18 per cent of students from lower income groups (less than £500) continue their education for

personal interest motives only.

c) Sex of students The female students' response, whatever their 'class' differs considerably from those of male students. While 27 per cent of students pursuing their studies for professional reasons are male, 73 per cent are female. About 66 per cent of students indicating they are continuing their studies for personal interest are male, while 34 per cent are female. Of those naming the country's need as a motive, 79 per cent are male and only 21 per cent are female.

10.4 Distribution of students according to their desired profession

As in the analysis of students' opinion at 16 years of age, the students in upper secondary levels (at 18 years of age) prefer the professions of health and engineering. Table B5 in the Appendix shows that of 487 students, 172, 35 per cent, chose engineering, 132 (27 per cent) saw themselves following medicine, including pharmacy, dentistry and medicine itself. Among the other professions, 36 students (7 per cent) wished to pursue government sector jobs, especially in military fields; 31, 6 per cent, wished to become lawyers. Other newer professions attracting attention were journalism, interesting 28 students (6 per cent), and laboratory techniques, including nursing, which interested 28 students (again 6 per cent).

There were variations in the percentage distribution of students' choice of professions, related to the profession and income of their family.

a) Father's work The analysis revealed that the percentage of students with self-employed fathers choosing engineering and health professions were 43 and 64 per cent respectively. For those with fathers in government employment the respective figures are 40 per cent and 22 per cent. The relative importance of this analysis is seen in Table B6 in the Appendix.

b) Family income Due to their different financial background, 14 per cent of students from lower income families chose engineering and 13 per cent chose the health profession. Of students with family incomes in the higher bracket (nearly £1,000 monthly) 25 per cent of students chose a medical career.

c) Sex of students The responses of female students differs from those of male students: 77 per cent of students choosing engineering were male and 23 per cent female. In the health sector, the respective figures are 68 and 32 per cent. On the other hand, of those choosing law as a future career, 26 per cent are male and 74 per cent are female.

10.5 The role of career information in the choice of educational career

The proper choice of the field of study by students according to the demands of society, the labour market and their own personal interest, aptitudes and capabilities is important, not only for the individuals concerned, but also for the future of their country as a whole. Hence the necessity of having a source of adequate advice, and career information for the students cannot be over-emphasized.

The analysis revealed in Table B7 that out of 491 students, 322 (66 per cent) received career information and 169, 34 per cent did not receive any kind of advice or information whatsoever.

The result of the analysis is consistent in all sub-classes considered. There are however some significant differences in certain cases. For example, it is noticed that the major source of information for the students are i) their parents, ii) their friends, iii) relatives, and iv) the mass media.

The relative importance of these sources may be seen in Tables B7 and 8 in the Appendix.

Table B8 shows the majority of students depend on the advice of their parents, in spite of the differences in father's work. (73 per cent). Students who get their career information through friends represent 15 per cent of the total. The media - newspapers, journals, books, radio etc, provided career information to 7 per cent of students. The survey indicated that students unions and youth centres did not provide any information for the students.

10.6 Degree of relevance of present study to future plans

Students were asked if they considered that study courses were relevant or not to their future plans. The analysis of the responses shows in Table B9 that 59 per cent of students think the school curriculum is "hardly relevant" to their future plans, while 34 per cent think it is not relevant at all, and only 7 per cent believe the curriculum is relevant.

The percentage distribution of students according to their opinion on this is similar in most of the sub-classes considered, as is evident from Table B10.

Some significant deviations observed may be discussed.

a) Father's work It is seen that the percentage of students finding their secondary school curriculum hardly relevant is maximum in the case of children of government employees (54 per cent). In the case of those with self-employed fathers, the corresponding figure is 28 per cent.

b) By sex The percentage distribution varies slightly according to the sex of the students. It is seen that 64 per cent of students considering their secondary school curriculum "hardly relevant" are male, as are 76 per cent of those considering it "not relevant". Of female students, 36 per cent answer "hardly relevant" and 24 per cent answer "not relevant".

10.7 Degree of curriculum relevance and its effect on students career choice

Students were asked if they considered their curriculum relevant to their future plans. The analysis as shown in Table B10 reveals the divisions in student opinion. Fifty nine per cent of students think it is hardly relevant, 34 per cent think it is not relevant at all, leaving 7 per cent who think it is relevant.

The percentage distribution of students according to opinions on the degree of relevance of school curriculum to future career choice shows the differences of students opinion, as is evident from Table B11 in the Appendix.

Of students choosing engineering, 32 per cent consider the curriculum hardly relevant and 46 per cent consider it not relevant at all. Of those choosing the second most popular field, health, 29 per cent believe the curriculum is hardly relevant and 24 per cent think it is not relevant.

10.8 Distribution of students' opinion on willingness to undertake training courses

The distribution of students according to their opinion of doing training courses (vocational studies) with their present curriculum indicates, as shown in Table B12, that of 485 students, 407 (84 per cent) are in favour of training courses and only 78 (16 per cent) would not wish to undertake them. Points of interest in the sub classes are as follows.

a) Father's work It is seen that the percentage reached its highest rank for children of selfemployed fathers (32 per cent) and government employees (51 per cent). The details of results concerning the degree of preference for vocational courses are given in Table B12 in the Appendix.

b) Family income It is noticed that 22 per cent of students from high income families, and 30 per cent of low income families, would prefer to undertake vocational courses in school.

c) Sex Female students respond less than males in the overall sample. Of those saying "yes" to vocational courses, 65 per cent were male and 35 per cent female.

10.9 Students' opinion in relation to their future career choice

As far as choice of a career, the analysis revealed the following as shown in Table B13. Of students choosing engineering, 41 per cent favoured an additional vocational course, as did 25 per cent of those choosing health. Only 8 per cent of the future engineers rejected the idea of vocational courses compared to 39 per cent of those choosing health. As in the overall sample, a majority (84 per cent) favoured vocational training) and only a small minority (16 per cent) rejected it.

10.10 Relationship between present study and future education

Students were asked if they thought their present study had a relation to their future courses which they intended to study. An interesting result appears in Table B14, indicating students were evenly divided, 51 per cent thinking their was a relation and 49 per cent disagreeing.

The percentage distribution of students according to their opinions regarding the relation between their present curriculum and future educational courses is similar in most of the sub-classes considered, as is evident from Table B14 in the Appendix.

Some significant deviations may be discussed.

a) Father's work It is seen that the percentage of students finding their secondary school curriculum had no relationship to their future plans is maximum in the case of the children of self-employed fathers (33 per cent). In the case of children of government employees, the corresponding figure was 52 per cent.

b) Family income It is noticed that a higher percentage of students with a high family income think there is no

relation between their present school curriculum and their future courses (34 per cent) while 26 per cent from this group think there is a relation. The percentage is slightly less in the case of students whose family income is less than £500 per month, (17 per cent) of whom think there is no relation between secondary school curriculum and their future educational courses, and 15 per cent of whom think there is a relation.

c) Sex The analysis revealed that according to the sex of the students, the percentage distribution varies. It is seen that 67 per cent of students thinking their curriculum is irrelevant are males, and 33 per cent are females. Of students thinking the curriculum is relevant, 64 per cent are male and 36 per cent female.

10.11 Effect of students' present studies on career choice

The percentage distribution varies dramatically from the case of students who choose engineering as their future profession to those choosing health. The respective percentages are 56 per cent and 21 per cent.

The details of the analysis pertaining to the question of students opinion of any relationship between present study and future educational courses are given in Table B15 in the Appendix.

10.12 The degree of dependence of future plans on the success of present studies

To analyse the inter-relationship between the success of students in their present study and their future career plans, the following aspects were considered: students' fathers' work, family income and and their effect on economic and social background, and the sex of the students, their academic specialisations, sources of information leading to their career choice, the degree of relevance of the educational system to their future plans, and the characteristic of their career choice. These are discussed one by one in the following.

a) Overall sample The percentage distribution of the analysis shown in Table 16 of Appendix B clearly reveals substantial differences between the students who thought their future plans depended greatly on their success in their present studies and those who disagreed. The results in the table speak for themselves - out of 485 students, 376 (78 per cent) think there is a great dependence, 15 (3 per cent of students) think there is no dependence, and 94 (19 per cent) think there is some dependence.

b) Father's work It is seen that the percentage distribution also varies in relation to father's work. The percentage distribution of students who think their future plans depend greatly on their success in their studies reaches its highest in the case of children of government employees (48 per cent), followed by 36 per cent of those with self-employed fathers. The details of the results concerning students' opinions are given in Table 17 in Appendix B.

c) Family income For the purpose of the analysis, the researcher divided the family income to a five point scale to give a clear view about Iraqi family income. Of students from families with a monthly income of nearly £1,000 29 per cent think their future plans depend greatly on their success in the present study, while 15 per cent of students from families with monthly incomes of less than £500 think the same, and 12 per cent from very high income families think the same as well.

d) Sex The percentage distribution varies considerably according to the sex of the students. Seventy three per cent of students thinking their career choice and all their future plans depend greatly on their success at their present studies are male, whereas just 27 per cent are female.

The distribution varies considerably in relation to:-

d) Academic interest Students from a scientific stream think mainly that their future plans depend greatly on

their present study (80 per cent), while 20 per cent of those in literary streams agree.

10.13 Sources of advice

Table 18 indicated that the response varies according to advice received, and the degree of relevance of the school curriculum to their future plans and career choice.

The relevant figures are 74 per cent of students getting their parents' advice think their future plans depend entirely on their success in their present study, while only 13 per cent depending on friends' advice and 8 per cent depending on general information, agree.

10.14 Degree of curriculum relevance to present study

Fifty nine per cent of those thinking their future plans depend greatly on their present success indicated that the curriculum was hardly relevant to these plans, and, as is shown in Table B19, 35 per cent of the students indicated it is not relevant at all.

10.15 Degree of curriculum relevance to career choice

Table B20 in the Appendix indicates that students choosing to become engineers or follow a career in health believe their choice depends on their success (39 per cent and 28 per cent respectively). Students choosing to work in government jobs, especially the military, think also their is a great dependence (8 per cent). It is evident from the analysis that whatever their choice or plan, they believe it to be greatly dependent on their success in their present studies.

10.16 The importance of educational advice to academic interest and career choice

To analyse the students' opinion about whether there is any attempt to offer any occupational advice, the following variables have been used in this analysis - the academic specialisation of the students and their career choice. These are discussed one by one as follows.

a) Academic interests It is seen that out of 428 students, 330 enrolling in the scientific stream (77 per cent) preferred to have career advice, whereas 98 students specialising in the literary stream (23 per cent) shared this opinion. Details of the distribution of students' opinion are given in Table B21 in the Appendix.

b) Career information To analyse students' opinion whether they preferred occupational advice or not, it is seen that the maximum number of students preferring this advice are those choosing engineering (36 per cent) followed by those choosing health (27 per cent). The distribution of frequency of occurrence of each profession and the corresponding percentages have been given in the Appendix in Table B21.

10.17 Students' opinion on doing training courses

The present Iraqi educational system causes deep concern especially among the students themselves. This creates the right atmosphere for a search for a solution to the system's problems. The researcher asked students their opinion on adding vocational courses to their present studies.

a) Overall sample Among 491 students used by the research in the survey, 413, 84 per cent, agreed with the idea of adding a training course to their present curriculum. Seventy eight students (16 per cent) rejected the idea. Opinions differed slightly on when this should be included, with 333 (82 per cent) thinking it better to start at the lower level of secondary education and 74 students (18 per cent) preferring to start at the upper level.

b) Degree of relevance Four hundred and eighty six students responded to the survey and their opinions differed on whether they considered the educational system as relevant or not. Of those preferring to add training courses, 241 (59 per cent) thought the system hardly relevant,

while 145 (35 per cent) of students from the same group thought the educational system was not relevant to the needs of the society and their future plans. Only 22 students (6 per cent) thought it was relevant and they wanted training courses to be added to their present relevant educational system.

c) Educational relationship The opinion of the students in favour of vocational courses differs from those against when they are asked if there is a relationship between their current studies and their future plans. Out of 407, 232 (57 per cent) of the students who agree with the idea of adding vocational courses think there is no relation, whereas 175 students (43 per cent) think there is a relation.

d) University alternatives Students were asked about their opinion whether they accepted any alternative offered to them if they failed to get the university place they wanted. In spite of their favourable response to adding vocational courses (408 students of 486) the majority of the 408, 383 students (94 per cent) said they would take that alternative instead of giving up their higher education totally. Only 25 students (6 per cent) rejected the alternative.

10.18 Summary

In order to make any educational or manpower plans, many factors should be taken into account. The analysis revealed that secondary education needs to be planned on the basis of the relation between education and socio-economic progressive development plans, and the extent of the employability of the students after they graduate. Secondary education is to be undertaken by quota according to the up-dated needs and demands of development plans and the capacity of higher education. X

and

After the analysis of the whole questionnaire, the results show that the students lack any career orientation. Students

believed that the highly academic curriculum directed them only towards higher education and the majority of them believed by adding practical courses they would gain a better understanding of the capability of specialising in practical as well as academic studies. Therefore secondary education at both levels should be geared to a balanced distribution among academic studies and the needs of development.

CHAPTER ELEVENFINDINGS OF TEACHERS' OPINIONS AND
ADMINISTRATORS' INTERVIEW

11.1 The Teachers

11.1.1 The opinion of the respondents on
adding vocational courses to the present curriculum

11.1.2 Teachers' position in the needed changes

11.1.3 The suggested courses

11.1.4 The degree of teachers' co-operation

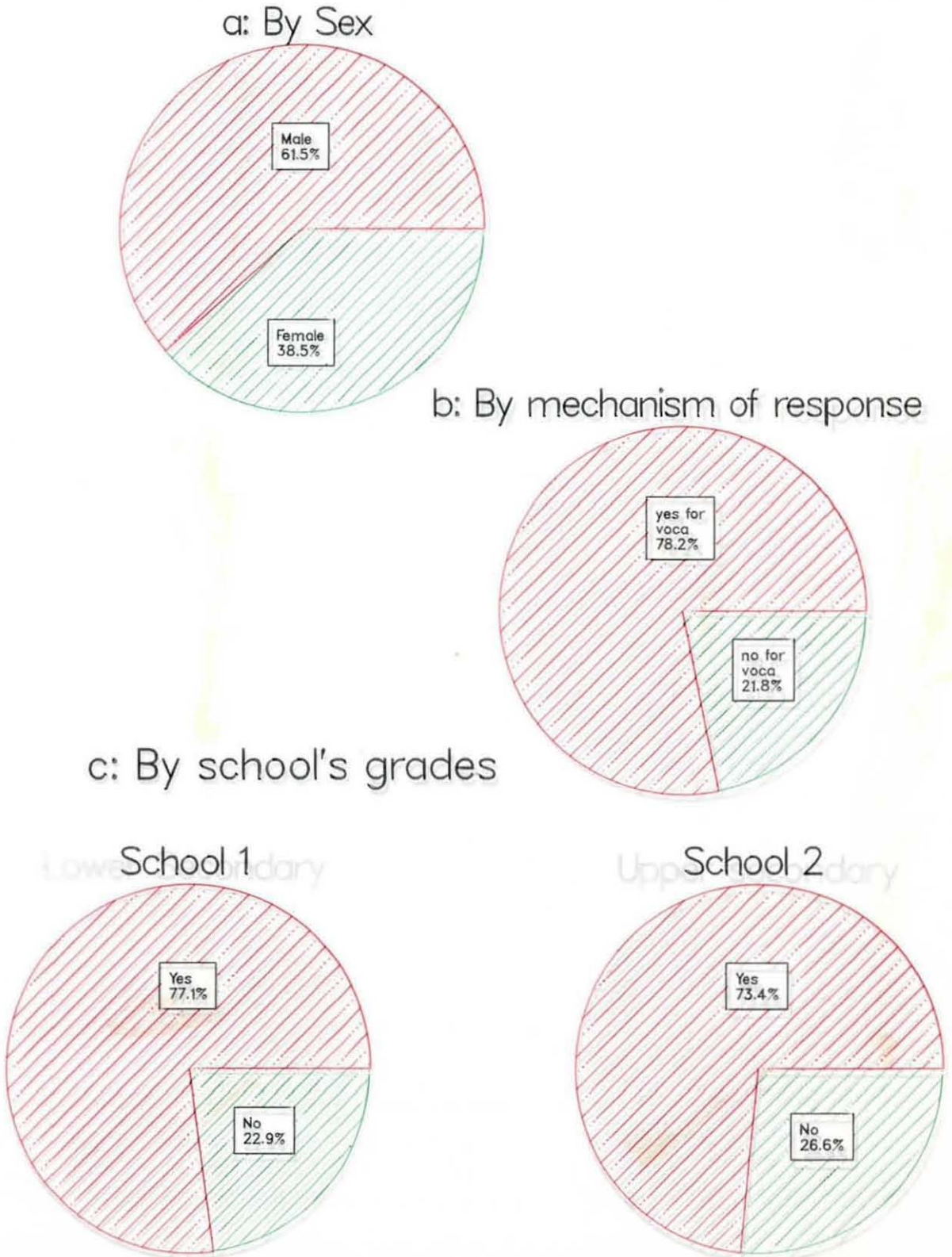
11.1.5 Teachers' opinion on introducing vocational
courses

11.1.6 The difficulties facing the implementation

11.2 Interview

11.3 Summary

Fig 18: Distribution of Teachers responding to the questionnaire



11.1 The Teachers

Raising the issue of vocational in any terms, whether with the teachers or anyone who has a relation to the educational system cannot be properly done without taking into the account the overall historical social feeling towards it. The only system of formal education accepted by most educators is the academic one. Therefore, when it has been assumed that vocational training is a completely separate issue, an innovation such as that proposed challenges accepted thinking, and its chance of success may be limited. However, it is dangerous to assume this theoretically, and the idea must be presented to the teachers to find out if it is acceptable or not, since they are the people who come into contact with the students, and their support is therefore necessary.

11.1.1 The opinion of the respondents

The teachers surveyed were chosen from different schools and districts where the students have been surveyed. Among 78 teachers who responded to the survey, 61 (78 per cent) would be interested in seeing special courses for vocational (technical/industrial training) added to the academic curriculum, whereas 17 teachers (22 per cent) rejected the idea. Thus, according to their opinions, they can be analysed as follows.

Table 49

a) Teachers in favour of adding vocational courses to the academic curriculum

	No. of respondents	Per centage
Yes	61	78
No	17	22
Total	78	100

b) Teachers' opinion analysed by sex of teacher

	In favour	Against	Per centage
Male	35	13	48
	45	17	62
Female	23	7	30
	29	9	38
Total	58	20	78
	74	26	100

But when the researcher divided the 78 teachers surveyed according to their schools, 48 teachers were chosen from School I (lower secondary school) and only 30 teachers from School II (upper secondary school) and the analysis of their answers is illustrated below.

Table 50

Teachers' opinion on adding vocational courses to the academic curriculum

	Response	No of respondents	%	Total
School I	Yes	37	77	37 77%
	No	11	23	11 23%
	Total	48	100	48 100%
School II	Yes	19	63	19 63%
	No	11	37	11 36%
	Total	30	100	30 100%

11.1.2 Teachers' position in the needed changes

The teachers were asked about the role they wished to play if changes were to be taken. Forty eight teachers (67 per cent) indicated they would like to join in the committees appointed* to formulate the new curriculum; 14 teachers (19 per cent) wished to be involved in choosing the methods of instruction, and 10 (14 per cent) responded to the suggestion of participating in the training programmes.

The analysis of these facts can be illustrated as follows:

*Teachers communicate their views on any possible changes through the Iraq Teachers' Union and Teachers' Bureau in the ABSP.

Table 51 - Teachers' position on needed changes

<u>Suggestions</u>	<u>Nos of respondents</u>	<u>%</u>
Formulate curriculum	48	67
Choose methods of instruction	14	19
Participate in training programmes	10	14
Total	72	100

11.1.3 The suggested courses

In order to understand what courses the 45 teachers who believed in adding vocational courses suggested to be added. A mechanical course was suggested by 75 per cent of them, in order to give an idea to the students about the advantage of specialising in mechanical studies, and stimulate the students' attitude towards practical work; 12 per cent suggested electronic subjects needed to be introduced in addition, in order for the students to understand the preliminary aspects of electronics and its relation to their future career plans; only 5 per cent of teachers suggested agricultural courses and 4 per cent suggested, besides mechanical, electronic and agricultural courses, metalwork, woodwork and animal husbandry. The rest of the teachers suggested pottery, carving, technical drawing and industrial education as well.

11.1.4 The degree of teachers' co-operation

The most difficult part for the teachers is deciding how they can participate in formulating the needed curriculum. In order to assess their opinion, they were asked to indicate the role they felt they were capable of taking. Out of 74, 28 teachers (38 per cent) wished to be a member of the curriculum committee; 31 (42 per cent) chose to participate in any scientific committee, and 15 (20 per cent) preferred to join an evaluating curriculum committee. The data obtained may be tabulated as follows.

Table 52 - Teacher co-operation in the changes

<u>Co-operating with changes</u>	<u>No of respondents</u>	<u>%</u>
As member of curriculum committee	28	38
Participant in scientific committee	31	42
Evaluating new curricula	15	20
Total	74	100

11.1.5 Teachers' opinion on introducing vocational education

In order to know teachers' opinions about introducing vocational courses they were asked if they thought it best to include them within the academic curriculum or give such teaching in separate schools.

Teachers were divided in their opinions about this. Of 72 teachers who responded to the questionnaire, 49 (68 per cent) thought it better to give such teaching in the same schools after providing the necessary facilities; 23 (32 per cent) of teachers believed in giving vocational studies in separate schools.

Table 53

<u>Teachers' opinions</u>	<u>No of respondents</u>	<u>%</u>
At the same school	49	68
In separate schools	23	32
Total	72	100

11.1.6 The difficulties facing implementation

Teachers opposing or agreeing with introducing vocational education as a part of the syllabus were asked to specify the difficulties which faced the implementation in their opinion. The survey shows there were very few teachers totally unsympathetic to the ideas. Nine teachers (25 per cent) thought there would be little coherence between academic and vocational courses; 7 teachers (19 per cent) pointed out the lack of fully trained teachers; 10 (28 per cent) thought the training courses proposed would not sufficiently train students for the realities of the labour market, and 10 (28 per cent) thought the proposals would not

change the students attitude towards manual work. Details are shown below.

Table 54

<u>Difficulties</u>	<u>No of respondents</u>	<u>%</u>
No coherence	9	25
Lack of trained teachers	7	19
Would not improve student attitudes	10	28
Would not sufficiently train students	10	28
Total	36	100

11.2 The interview

The survey included both questionnaire for students and teachers, and interviews for administrators in the Ministry of Education in Iraq.

The attitude towards secondary education from the administrators was analysed, keeping in view the characteristic of the sample with respect to the different aspects of the mechanism of the secondary education process, as well as its relationship to both higher education and the world of work. This is discussed below in relation to the questions which have been put forward to the various people involved. The educational administrators surveyed were chosen from different departments in the Ministry of Education, their opinion differs according to their role in the Ministry, but they all agreed that certain changes had happened since the 17 July Revolution in 1968. The emphasis was, and still is, on change - as much as possible - the secondary education system is to be in line with the philosophical and social ideology of the "Arab Ba'ath Socialist Party" to build a secondary education compatible with the socio-economic development plans. From this point, the government started to look for the possibilities for reform, and to find ways of deciding how to do the job, to rebuild secondary education, to educate students to enter higher education, and to train semi-skilled workers to meet the great demand and pressure of the economic development plans.

Therefore schools must become a place not to graduate doctors, engineers and failures, it should be a place for educating students academically as well as training them in practical subjects by providing well-structured curricula, including science, literature and practical courses. The analysis of the responses of the administrators to the questions has been presented to them by the researcher, some of them responded negatively, but the rest co-operated by explaining their opinions and thoughts.

Most of Iraq's recent wave of manpower forecasting and quantitative planning activities started in the early 1970s and accelerated in the middle of that decade. Therefore the flow of students from lower to upper secondary education worried the researcher, and the policy makers were asked about this matter. They all explained that the Ministry of Education started to implement a plan from the 1983/4 academic year which restricts the influx of students from lower to upper secondary schools and distributes them after they graduate from the lower level of secondary school over various sections of vocational education (e.g. industrial, technical, agricultural etc). Each student who scores - as one administrator explains - less than 70 per cent in lower secondary school baccalaureate examination should join the vocational education. The administrators in the Ministry of Education believed that by following this policy, they can regulate the number of students required in the general academic and vocational education. The researcher then asked "if in the belief of the Ministry of Education, by implementing this type of policy in regulating the student numbers, how much do the planners think that secondary education can play a part by influencing the world of work on one hand and higher education on the other?"

One of the respondents indicated that neither in the past, nor in the present experience does it appear that there is any relation between secondary education and the world of work, but if we put it another way, as he explained, there

is a relation, i.e. educating the students to go to higher education to be a doctor, engineer, accountant, teacher etc. However, secondary education in general terms does not cater for training students to go to vocational schools to specialise in practical studies. And for the relationship between secondary and higher education. The job of secondary education is to prepare students academically to go to higher education. Therefore, higher education depends on secondary education graduates. And he further explained that the Ministry of Education established three comprehensive schools in Baghdad (the capital) to provide a range of courses to the students to fulfil their needs and discover their abilities and aptitudes in relation to their education, and in the minds of the administrators in the Ministry of Education it was intended to expand the number of these schools in different parts of the country if it proved that these schools are successful at the end of the experimental period.

Since the 14 July 1958, Iraqi society has had a rapid development, whether politically, economically or socially, and to keep the educational system in harmony with these progressive developments, the government applied different changes to all educational levels. As a result of this, massive changes occurred, the student numbers increased dramatically, but how much the students have benefitted from these changes scientifically, or how much they have been prepared to decide their career choice, remains to be seen.

The quantitative growth of students during the period 1958-67 and 1967-84 has given the Ministry of Education a serious problem in spite of their commitment to get all students rights to a better education, but this came at the expense of the proper quality of education. Indeed, the low quality of education and the over-crowded classes gave a great problem to the institutes of higher education, for the quality is below the standard required by the universities. Students must be motivated - as one contributor indicated -

towards manual and practical work, besides their specialised academic subjects, giving them a wide range of choices for the benefit of their future.

This harsh reality, as he indicated, facing the Ministry of Education, made it realize that something must be done about secondary education to avoid the high percentage of failure.

As we know is that Iraqi families, as one inspector pointed out, demand better futures for their children, and they rejected the idea of letting their children go to vocational school. Therefore, in my opinion, as he indicated, by introducing a curriculum which contains academic as well as practical courses students can be helped to discover their abilities in choosing for themselves and doing what is the best for their future. In my opinion this is to introduce a practical curriculum which contains academic and vocational subjects, as one administrator in the Ministry of Education calls it "wider educational ground". This meant that the students had wide ranges of choices of subjects and could discover what suited their aptitudes. By doing this an educational system would be created which would cater for sciences as well as vocational studies. However, our children may fail - as one interviewee indicated - because they do not know what they are doing, and they lack the required standard of knowledge in science as well as practical experience in any field of work, and he continued "what is required is to avoid the increase in number of students who graduate with no knowledge where to go, is to establish a curriculum which contains chemistry, physics, biology, languages, history and technical subjects, as well as agricultural studies".

So what has the Ministry of Education done to stop the acceleration of this problem? One planner explained to me that the Ministry has two plans and already has put one into practice, and the other will be implemented shortly. The first is called "The Industrial Department". In fact, the Ministry has already opened such departments in 38

schools in different areas in Baghdad, and these contain five sections - commercial, electrical, mechanical, technical drawing and ceramics. The second programme, which is still under study and does not have a definite date for implementation, is "The Unified Upper Secondary School". This is designed to marry literary and scientific studies in one curriculum to prepare students for their future. This indicates that the Ministry of Education is aware of the problems, but as we all know, secondary schools, as the researcher pointed out, are not meant to produce students who want to be engineers and doctors, but also students intending to be semi-skilled workers, going for further training in vocational institutes, to fill the shortage that Iraq has had for a long time. In other words, the researcher does not suggest increasing vocational courses at the expense of the academic. All that is suggested is that students must be prepared to divert their attention from universities to the world of training if they are not up to the standard of university education. As one economist pointed out, the rigidity of the educational system as a whole can harm the economy of the country by its highly academic curriculum in the secondary level, and wastes the vast number of students who could not contribute to the economy. Therefore, this waste reflects negatively on all Iraq's economic plans. All that our system needs & as he suggested - is to change the curriculum to be more flexible to offer practical and academic studies to the students. This does not mean in my opinion - the economist - closing down the vocational schools which already exist, but adding vocational courses to the general curriculum, giving great encouragement to the students and their parents which are the most influential agents, and encouraging them to think about vocational studies more seriously for the benefit of their children. A great proportion of secondary school students - as he explained - chose careers in medicine and engineering, yet they did not know the

CHAPTER TWELVEGENERAL SUMMARY . . . CONCLUSIONS AND POLICY RECOMMENDATIONS12.1 General Summary

Education has long been recognised by almost all developing countries, whether they are newly emerging or the long-independent countries, as a central element for their development. It is highly valued because it is thought to be able to increase the supply and quality of skilled manpower at all levels, to facilitate the advancement of knowledge of all kinds, and to provide qualified and trained manpower to deal with environmental issues.

The high valuation of education can be witnessed in all developing countries when they begin their drive for social and economic development, but the 1950s failed to achieve greater social and economic equity or equilibrium between the demand of the labour market and the supply of educated people from the educational system. Vullimay and Carrier (1985) believed that "the attempt to introduce agricultural or practical skills into curricula are rejected by parents and students as an inferior dualistic alternative to academic schooling" (p 17), because the majority of parents saw that the way out of traditional poverty had always been through the academic schools not the vocational ones. Parents and pupils feel that a better living could be obtained in forms of employment other than farming or manual work. During the 1960s, it became clear to many developing countries that there was a great demand for them to expand their technical education as a result of technological advancement which swept the whole world. Schools of agricultural specialists, nurses and engineering technicians were needed to contribute significantly to the growth of national productivity and income. This put great pressure on the educational system as a basic tool which gives the population basic knowledge, values and skills on which they can build their future lives and adjust to social and economic changes.

But, in spite of all that has been said about educational development in the early 1960s, all the efforts were directed towards "expansion of student enrolment" rather than towards changing the character of education from the highly academic, which was inherited originally from the colonial period, to one which is well structured, parallel to and equal in resources and status with the traditional academic schools where vocational and agricultural studies provide a contrasting bias. In other words, a vocational technical curriculum integrated with the academic subjects whether it is in technical or agricultural schools, or in a comprehensive school system does seem to be required.

These schools must be directed towards the creation of manpower for socio-economic growth, where the need is to produce employable workers with intermediate skills such as technicians, nurses etc, while at the same time attempting to re-orientate students' aspirations in the same directions.

In the last 1960s and early 1970s the emphasis was placed on the improvement of both the external and internal efficiency of the school system by relating education to national needs for scientific, technical and professional manpower. As a result, the educational system has become better structured and also many attempts have been made to improve its quantitative efficiency and quality in developing countries to make education more relevant to the indigenous life and culture and to different needs of regional population within a country, for example the integration of education and productive labour, and the policy of work/study in China (Löfstedt, 1980; Shirk, 1978, Linger, 1982) although the extent to which this policy has actually been implemented is open to question, and the "School to the Countryside" and "School in the Countryside" programmes in Cuba (Bowles, 1971; Gillettee, 1972; Simkins, 1977). Similar developments have been attempted in Tanzania, as part of Julius Nyerere's reforms (Education for Self Reliance.)

Despite these improvements, actual and intended, education continued to face the same criticism that complicates further development. Recently, many educationalists have argued that education cannot be expected to solve fundamental social and economic problems (Sinclare, 1977; Lillis & Hoggan, 1983). The main problem, which always creates this criticism is that the content of education is in urgent need of adjustment to the demands of today's and future needs, insofar as the latter can be identified. Developing countries are clearly in urgent need of readjusting their educational system to make it more relevant to the manpower needs of the country and to examine the implications of that strategy for a policy on secondary education and the limitations it imposed on the contribution which this level of education makes to overall development of the country (Bacchus, 1984, pp 189-190). Haddad, (1981), believed that the heart of the problem that developing countries must deal with is that a certain relation should be built between education and work to solve the problem they face which is the shortage of technical and managerial skills, because, as Haddad indicated, the type of education provided is not always geared to actual employment opportunities in the present day economy. Academic education tends to be thought of as a passport to jobs in the modern sector (i.e. especially white collar jobs); furthermore education at each level tends to be a preparation for the next rather than for work, so that many students are educated beyond the requirements of available jobs (p 132). Students are thus left unprepared for their subsequent work experience.

Against this background, the general aims of this study have been devoted to discussing and analysing current formal educational systems in Iraq and to tracing its development between 1958 and 1984; to identify the particular major problems of the Iraqi secondary education system, which, as the researcher believes, affect the sound progress of the system and its relation to the socio-economic development in Iraq; and to make recommendations for possible improvements in the system.

12.2 Conclusions

In the introductory chapter of this study, a brief account was given of the historical and political circumstances which prevailed in Iraq for several centuries and which were responsible for the grave social and economic backwardness in the country. When this period came to an end in 1958 and a new era began in the history of the Iraqi nation, an extensive programme of development and reform was launched to eliminate the considerable economic and social backwardness inherited from the past. In the new republican era which is influenced by western technology, priority has been given to education because of the important role it seems to be able to play in this process and in the development of the nation's potential human resources. Thus during the last two decades, the country has witnessed a considerable expansion in educational provision at all levels. However it has been pointed out that the present system of education in Iraq is a result of a long historical process which could be traced to the early days of the Islamic era. As European influence grew in the nineteenth and early twentieth centuries, Iraq has lost a large part of its traditional Islamic education, the process of modernisation and secularisation has disrupted the old society and its educational system. It can be claimed that the new state educational system took full responsibility for training the children and left no effective role for traditional Islamic education. The early development of secular education was influenced by socio-economic and political developments which changed the system dramatically. It was started by the Ottoman domination in the early 19th century and ended by the British occupation after the First World War.

In Chapter Two, because Iraq is a developing country, an attempt has been made to construct a conceptual framework and rationale for an educational system in most developing countries and the influence of the colonial powers on education with special emphasis on secondary education.

Chapter Three outlined the social, cultural and geographical aspects of the state of Iraq, in order to present a clear picture of the context within which education has to be developed, and showed how these three aspects of Iraqi culture interacted with one another to create Iraq's present situation.

In Chapter Four the economic situation in Iraq has been discussed. As might be expected from an economy with financial strength, pressures are placed upon resources other than capital, particularly human resources. The above is especially true for a major oil producing and exporting country like Iraq in its attempts to increase the capital accruing from oil export to diversify its economy through speedy industrial development and absorption of new capital. It is necessary in this process to maintain an adequate supply of skilled workers at the line, quantity and quality required by the economy.

There has been a strong appreciation that education can be used to raise the productivity of the Iraqi labour force and to equip the country with indigenous skilled labour. While recognising the need for highly skilled manpower and the benefits that this can bring in terms of raising the standard of living of the community, the development of the educational system in line with the requirements of industry in the economy is hindered, to some degree, by the rural traditionalism.

Iraqi economy, in the meantime, has stimulated local potential sources of manpower supply in addition to the utilisation of borrowed skills from abroad in order to cope with a big demand for skilled labour for the development plans and an intensification of the policy of diversification of the economy.

Nevertheless, the progress of education during the present years was hindered by the interrelated educational problems inherited from the past. During the first three decades of national administration, the educational system did not

succeed in providing the population of the country with the minimum level of education, as is described in Chapter Five. Up to 1958, educational activities in Iraq did not contribute substantially to the development of a modern society and economy. Educational achievement was not only very limited in quantity but also was of a generally low standard. Educational policies emphasised classical and traditional education while technical and vocational instruction was greatly neglected. Schools were mainly located in and concerned with urban centres so that villages and remote areas hardly benefitted at all from the growth of the educational system in Iraq during this time. In other words education in Iraq continued, throughout the first half of the twentieth century to be

"adopted rather than adapted ... the privilege of the few rather than the right of all ... autocratic rather than democratic, academic and theoretical rather than practical and functional ... isolated from people's life rather than contributing to its improvement, and ... as a means for turning out employees rather than effective citizens capable of assuring successfully their economic, social and political responsibilities" (Harby, 1965, p 23)

The turning point in the expansion of educational opportunities came with the Revolution of July 1958, which strongly emphasised the significance of education in effecting the desired changes in the country's political, social and economic objectives.

Chapter Six explained that vocational education as part of the educational process is a viable investment for the generation of technical skills required by the economy and industry. The education provided in vocational, technical education the skills taught and attitudes inculcated are necessary for development in order to : 1. enable the country to utilise the most recent achievements of technology in order to develop existing and prospective natural resources; 2. to increase the future marginal productivity of the industrial labour force, and: 3. to generate skilled workers who are supplied with theoretical knowledge and who are flexible enough to adapt to new technological developments and social changes.

As in many developing countries, Iraq has provided facilities for vocational and technical education which are separated from the general stream of high status education. A characteristic of this model is that the vocational curriculum includes a sizeable content of literary, scientific and technical subject matter. Functioning within this model could not throughout its history develop a functional relationship with the industry which could have helped in alleviating the shortcomings of the system. Due to historical reasons explained in Chapter Six, vocational education has been associated by the public with orphanages or charitable institutions, a stigma which affected their development. Vocational education has since then continued receiving students who are educationally and socially under-privileged. Also, as has been noticed by the researcher and other Iraqi specialists, the problems of vocational education were compounded by the fact that the system was administered at the central level by educationalists who envisaged secondary vocational education as different from and inferior to general education. This conception of vocational education as viewed was influenced by cultural factors where in Iraq the academic tradition was the strongest and most prestigious. Apart from cultural factors the development of vocational education was discouraged by the limitations of the economy and industry which did not show signs of strength until late in the 1950s. Attempts were made to expand the system, but shortcomings in the quality persisted due to unsuitable buildings and equipment, underqualified teachers and faulty curriculum and instruction.

In the post-1958 years, fundamental social and economic changes took place. The state socialism approach to economic development took place. Two major trends in this context emerged; 1) strengthening the public sector, and 2) intensifying the policy of diversification of the structure of the economy which emerged as a major objective to reduce Iraq's sole dependence on crude oil export. The model on Iraqi economy and technological transfer for industrial diversification has come to take up its present shape as one of public sector dominated economy and this new phase

was dependent upon importing foreign technology, and it required mass labour at various skill levels lacking in Iraq. Against this background increasing efforts were made to increasing the number of vocational education institutions which had been neglected in the 1960s. The growth rate of vocational education was 1.3% in terms of enrolment and 14.7% in terms of graduates between 1960 and 1967. However, between 1968 and 1984, the situation improved and the enrolment and graduation were growing at a rate of 24.4% and 26.2% respectively. Despite the remarkable expansion in terms of quantity, vocational education has been questioned on the grounds of skills, efficiency and knowledge.

In the 1970s, with the policy of diversification of economy and industry intensified, the government embarked on vast development and industrial programmes made possible by massive oil revenues which dramatically increased due a) to the nationalisation of foreign oil assets, and b) to the oil price increases of the mid 1970s. The need for additional skilled manpower resulted in increasing attention being given to vocational education as a potential source for the generation of skilled workers. But the traditional social attitude towards any type of vocational education related to manual work meant that those who entered it now were academically and socially less privileged than those who opted for the general secondary education which lead to university and post-secondary education. The primary need is therefore to develop new positive social attitudes towards introducing the needed educational changes. Thus fundamental questions must be raised with regard to suggestions of adding vocational courses to the general academic model, namely; do parents and students in fact accept the demand for skilled manpower to contribute to the socio-economic development, and understand the implication of such a policy for them? This question is crucial, especially at the present time. The demand becomes greater for labourers

to accelerate the development plans first, and to avoid the pressure on higher education which is not capable for equipping all the students and meeting their required studies. When formulating the aims of this study, the following four hypotheses were proposed:

- 1) The school curriculum is inadequate to meet students' future plans.
- 2) The students' career choice is feasible and realistic on one hand and adequately responds to socio-economic needs and demands on the other.
- 3) The school provides the students with adequate opportunities and experience for career preparation, i.e. the availability of advice and information regarding careers is adequate.
- 4) There is a strong relation between the present school curriculum and their future career choice.

Thus in order to elucidate empirically the problem of secondary education and its failure to divert students' attention from their highly academic study to more practical and skilled manual training to match the socio-economic plan's demand, this study set out to investigate the nature of the acknowledged inadequacy in the secondary school curriculum, to test the above hypothesis and to seek more specific answers to the major questions it raised. After designing the questionnaires, it was administered in 49 secondary schools all over Iraq to investigate the effectiveness of the educational system in different Iraqi social structures from agricultural to working class areas as well as middle and upper class sections; this is dealt with in Chapter Seven.

Chapter Eight discussed the construction and content of the questionnaire as well as its administration and the collection of the data. The coding and processing of the data was also explained.

Generally speaking, as shown in Chapters Nine, Ten and Eleven, all the questions were confirmed and all the major questions were clearly answered by the results achieved. When the study assumed the inadequacy of the school

curriculum in secondary schools of Iraq for preparing students for their future plans as well as the country's development plans and attempts to ascertain its extent and magnitude to answer the hypothesis, the findings were that inadequacy not only existed but it created damage in both students' future plans and the country's development plans. These findings were confirmed after examining the four hypotheses.

1) In examining the first hypothesis which indicated the adequacy of the school curriculum, the result of the analysis indicates that a substantial number of students at both levels of secondary education are disappointed. They clearly revealed that the students in the lower level of secondary education (65 per cent) and in the upper level (59 per cent) considered their school curriculum to be inadequate in preparing them for their future educational plans. They think by adding different practical courses to their present curriculum they could be helped with a training necessary for their future plans, and with the opportunity to be more flexible in planning their future .

2) In examining the second hypothesis which indicated that the student's career choice is logical, and realistic, it was found that the majority of the students made up their choice about career in relation to their personal interest in the medical and engineering profession, as shown in Table 5 (Appendix A) and Table 6 in Appendix B. They built up their choice according to different factors as shown in the analysis; students' socio-economic background has a great influence on their career choice; students coming from high income families presented a higher percentage in the health profession and engineering choices at both levels. The correlation value between students' career choices and family income was $r = 0.227$ at the lower level and $r = 0.170$ at the upper level. When students were asked to describe their career choice an overwhelming majority of them (89%) chose engineering and medicine for their future careers.

In the light of the preceding findings, the second hypothesis could not be substantiated.

3) After examining the third hypothesis which indicated that the school provided the students with adequate opportunities and experience for career planning it was found that students considered the necessity for getting information about the availability of careers for them after their graduation; (37%) of students at the upper level of secondary education received no advice or help from any source whatsoever; this indicates that a big proportion of students have no idea about the characteristics of the available jobs in the country, but 63% had information about the career they chose to enrol in after their graduation, but the source of the information which they depended on was firstly their parents, then friends and mass media, relatives are the last, with 74, 16, 6 and 4 per cent respectively. This result indicated that the students denied that their schools gave them any significant assistance. Ninety nine per cent of the upper secondary school students believed by the necessity of the career officer. Thus it can be concluded that the third hypothesis was refuted.

4) The fourth hypothesis pointed out the relation between the present school curriculum and student's future career choice. It was found after examining this hypothesis that 52% of the students at lower level and 50% of upper level students thought there was no relation between their present study and their future educational plans. But how much relevance exists between their present curriculum and their future careers? Sixty per cent of the students found it hardly relevant, 33 per cent found it not relevant and only 7 per cent found it relevant.

Therefore the results indicated that the fourth hypothesis could not be substantiated. The above findings clearly show throughout the analysis of the answers at both levels showed that secondary school curriculum in Iraq is highly academic and prepares students only for academic life, even career wise; students have no idea about choosing different jobs besides medical and engineering sectors which is unrealistic at the levels of both economics and education. Because Iraq as a country with its development plan has a great

demand for a labour force which accelerates these plans, but this is impeded by the lack of career guidance that students suffer from about the country's needs, as shown in this study. This also creates the massive number of graduates which does not fit with the country's employment plans, and which gives clear signs of economic wastage in the educational process. Therefore the general pattern of secondary school curriculum is in great need of change to meet the existing demands of socio-economic development plans and to orientate students towards fields of study which are more needed for the country's development.

The educational system is also responsible for providing guidance to the individual in choosing fields of work for which to prepare and choosing training courses. But this guidance should take account of manpower needs and employment opportunities as well as characteristics of each field of work and type of preparation in relation to the characteristics of the individual.

Such demands imposed by the demand of the labour market and the impact of the technological changes have created a great need for vocational rehabilitation. In other words, the educational system, with the assistance of other agencies if required, should provide lifetime education opportunities in accordance with changing manpower needs. But the problem of the educational system in Iraq as discussed in this study, are serious and inter-related, and the situation needs to be tackled comprehensively and from all angles instead of through piecemeal reforms. In fact what Iraq needs today in response to the existing deficiencies of the educational system and its relation to the development of human resources, is to reorientate students' attitudes to both society and work ... by means of structural changes in educational systems and therefore the educational system, especially at secondary level, should not only assume accountability to respond promptly to the essential element of development changes, but to provide the required education which directs students towards the creation of manpower for socio-economic growth

in situations where lower-level school graduates cannot be absorbed at higher levels in the educational system.

Thus the system needs to produce employable workers with intermediate skills and to lead students to see the desirabilities of employment at that level in view of the tendency for academic schools to destroy many of the desired goals of such initiatives. However, teaching the students intellectual skills and academic knowledge in order to adjust according to the demand of socio-economic development in the country also needs to emphasize the practical applications of theoretical studies in order to create and encourage attitudes conducive to acquiring employment skills after leaving schools.

These findings, which in fact confirm the results previously established in this study, provide further evidence of the inadequacy of secondary school curriculum in Iraq and clearly indicate that this inadequacy at both levels of preparing students for their future career on one hand and to meet the demands and needs of socio-economic development on the other are sharp and substantial. Moreover the relation between the present school curriculum and students' future career choice, and the schools provide an adequate information and experience for career preparation can be judged neglected. This is a well-established phenomenon which has been revealed by most of the research work and which shows very clearly in the reply of the students in the questionnaire of the survey.

The results achieved for the first time that the student's choice for their future career at both levels of the secondary school are drastically unrealistic which represents a serious problem within the educational system in Iraq. Generally speaking, about two-thirds of the students at both secondary school levels made up their choice either to be in medical or engineering professions, and this shows very clearly that the majority of the students have not got a clear idea about the job prospects and what are

believed to be the needs of the Iraqi economy for the skills which accelerate the development plans.

The presentation, interpretation and discussion of the results in Chapter Twelve represent the final stage of this study and complete the assessment of the field it set out to investigate. The basic hypotheses were verified, the major questions were answered and the general and specific aims of the study were fulfilled. Thus the problem of inadequacy of secondary school curriculum in Iraqi educational system has been fully elucidated and its dimensions within the system have been clearly revealed.

Recommendations

The suggestions presented in this final section of the thesis result from the whole development of this study. They arise out of the conceptual framework and the general rationale for education in developing countries drawn out in chapter two; the analysis of formal secondary education, both academic and vocational (Chapter Five and Six); and from the survey which has been conducted in secondary schools in Iraq, also interviews with the relevant personnel and administrators; and meetings with teachers and parents. From all these considerations, the following suggestions are made:

1. Career prospects

The results of the survey show that the student's career aspirations are unrealistic and do not relate to the needs of the country. Therefore, students need to be informed about the nature and availability of the jobs which are needed for the development of the economy.

2. Career guidance

There are at present inadequate career guidance facilities available to a majority of students at both secondary levels. Such guidance must now be extended to give students more precise information about the jobs available.

3. Job Prospects for female students.

The result shows throughout that female students study for their own sake, rather than for state needs. There is clearly a need for immediate attention through vocational counselling. Women's organization should encourage and enable girls to participate more effectively in their country's development plans.

4. The secondary school curriculum should aim to serve both higher education and economic development plans at the same time. Its curricular goals should be in line with economic diversification and practical training, as well as providing greater emphasis on agricultural studies, and practical subjects to orientate students to problems of work, of industry, of development and to try to bridge the wide gap between rural and urban life. This suggests that the curriculum should contain both academic and technical elements. Variations should be made available according to the nature and requirements of both students and different parts of the country.

5. Special attention should be given to the training of teachers, introducing new training technique and improving the existing teacher training programmes, including via closer links with industry and via periods of practical experience in industry and/or agriculture. They should be exposed to modern methods of vocational technical education which make full use of teaching aids, identify the needs of modern industry and the needs of students in the light of changing circumstances. A prime focus needs to be attitudinal changes, so that in future young people will come to be more realistic in their aspirations.

6. Co-operation is necessary between all the different agencies as higher education, and the industrial establishment in designing the curriculum and teacher training programmes.

7. The result of the survey shows that it is necessary to emphasize that Iraq basically is an agricultural country. Therefore, it is very important to include in the curriculum some aspects of agricultural studies in order to develop the rural-agricultural sector effectively, by co-ordinating the educational curriculum with new knowledge and skills in various dimensions of agriculture and farming life.

8. The interviews carried out with educational supervisors indicated them to be in need of new knowledge. Therefore it is necessary to provide

elements of their chosen career. To avoid the defeatist feeling for students who could not reach the required standard set by the universities - as he concluded in his comments - he said the Ministry of Education should take a daring step towards diversifying the secondary education curriculum, including more practical subjects.

Since the mid-1970s, there has been a big demand - as one administrator claimed - for diversifying secondary education to meet the policy of diversification of the economy and there are different on-going studies to find the possibilities of diversifying the secondary education, but he did not indicate whether the Ministry was seriously thinking about implementing the diversification.

11.3 Summary

The analysis of teachers' opinion on diversifying secondary education in Iraq revealed that the majority of the teachers who responded to the survey in favour of adding vocational courses to the academic curriculum which students already follow. Teachers were asked about i) their position in the needed changes, ii) if they had any suggested courses, and iii) about their co-operation in the wanted changes.

Almost all the teachers expressed their wishes to join in the committies dealing with curriculum, as well as suggesting the most needed courses, for the students future plans as well as the country.

As for the administrators included in the survey, they expressed nearly the same opinion as the teachers, and the students, and indicated the planned steps the government had in mind. Diversifying secondary education, as suggested by the researcher in the present study, seemed to be welcomed by students, teachers, parents and administrators, and was considered as a strong organisational mechanism for the students as well as for the Iraqi development plans.

- (i) evening training courses organized by the Ministry of Education and
- (ii) one-year full-time Diploma course which will qualify the Supervisors to be more effective in promoting at managing educational changes.

9. It is essential to recognise the necessity of establishing schools which fully and completely facilitate basic class instruction and workshop training and other activities.

10. With the massive development plans now being considered in Iraq, the economy will need skills of various type, such as engineers, technicians, nurses and teachers, as well as agriculturist and supervisory personnel. The formal educational system may not be able to adapt rapidly enough to meet these changing needs. This draws attention to the importance of the non-formal education which offers pre-employment, out-of-school, training programmes for post-primary school leavers parallel to the formal education system in the contribution on the socio-economic development. It may be also necessary to the Iraqi government to consider the establishment of a separate body, on the lines of the U.K. Manpower Service Commission, would have the task of overseeing the formal technical training required by young people emerging from the school system. Such a separate body might be able to respond more rapidly to the needs of industrial employees and of the wider economy. This new body could operate alongside:

The Iraqi centre of In-Service Training Programmes which has already established non-formal system and/or vocational training courses (Railway, Post, Public Transport Department, Tele-communications, and chemical and oil industry workers). Such training programmes should be extended to the economic activities where they are needed. The formal education system will have to co-operate with/and be prepared to contribute to and receive assistance from these units. A better co-ordination of the formal and non-formal education unit will make the system of diversifying secondary education in Iraq more successfully in achieving its goals.

To sum up, because Iraq is predominantly an agricultural country, this educational development must be designed to enhance rural as well as urban areas, to improve agricultural as well as to provide the skilled technical, commercial and managerial personnel needed to sustain the industrial sector, and to produce specialists in accordance with planned manpower requirement, as well as offering the fullest assistance to the students to prevent unnecessary wastage of ability, counselling and guidance services should be made available

to all students, not only in higher education institutions, but also in the latter years. There is an urgent need for more detailed research into the precise relationships between the young people emerging, at all levels, from the education system, the perceived needs of their future employers, and the overall path of economic development in Iraq. At present there is a remarkable lack of such studies and of adequate relevant statistical data - This research will have to be sufficiently wide to embrace the question of such altitudinal changes as may be required, and to take careful note of the relevant views of national educational, industrial and economic organisations. Of Secondary education, also it is very important that the government should restructure its employment policy to ensure the employment of the professionals in relevant occupations. The present study and its survey is a pioneering work in this field and if, by revealing the dimensions of the problems of the inadequacy of the secondary school curriculum, it draws attention to the existing situation and should help in any way in the formulation of the policy required for reform, then it will have fulfilled its basic aim.

APPENDIX I

Tables A1 to A20

TABLE A1 : Distribution of students according to their "academic interest" in relation to their father's education, family income, mother's work, sex and source of direct help ...

Academic Interest	Scientific	Literary	Vocational	Total
Overall sample	588	163	60	811
%	73	20	7	100
<u>Father's Education</u>				
Primary	186	55	38	279
	32	34	64	35
Secondary	207	83	11	301
	35	51	18	37
University	190	25	11	226
	33	15	18	28
Total	583	163	60	806
	100	100	100	100
<u>Family Income</u>				
<200	98	37	27	162
	17	23	47	20
200-300	157	53	19	229
	26	33	33	28
300-400	157	44	6	207
	26	27	11	26
400-500	89	17	3	109
	16	10	5	13
>500	87	11	2	101
	15	7	4	13
Total	588	162	57	808
	100	100	100	100
<u>Mother's work</u>				
Housewife	293	98	45	436
	50	60	80	54
Working	292	64	11	368
	50	40	20	46
Total	585	162	56	804
	100	100	100	100
<u>Sex</u>				
Male	356	77	38	472
	61	48	64	58
Female	229	85	21	335
	39	52	36	42
Total	585	162	59	807
	100	100	100	100
<u>Source of help</u>				
Career Officer	1	1	0	2
	0.50	1.50	-	1
School Staff	5	7	0	12
	2	8	-	3
Parent	314	59	18	391
	87	69	100	85
Friends	34	17	0	51
	10	20	-	10
Relatives	1	1	0	2
	0.50	1.50	-	1
Total	355	85	18	457
	100	100	100	100

TABLE A2 : Source of information provided in relation to students' future plans

Source of help	Responses	%
Career Officer	2	0
School staff	12	3
Parents	390	84
Friends	55	12
Relatives	4	1
TOTAL	461	100

TABLE A3 : Source of career information provided to students
(overall sample and by types of student) ...

<u>Getting help</u>						
	<u>Yes</u>	<u>No</u>	<u>Total</u>			
Overall sample	466	341	807			
%	58	42	100			
Source of help	Career Officer	School staff	Parent	Friends	Relatives	Total
Overall sample	2	13	390	55	6	461
%	1	3	84	12	2	100
<u>Father work</u>						
1	0	1	82	7	0	90
	-	9	24	13	-	22
2	2	10	234	34	0	280
	100	91	67	65	-	68
3	0	0	3	6	3	12
	-	-	1	12	50	2
4	0	0	18	3	3	24
	-	-	5	6	50	5
5	0	0	8	2	0	10
	-	-	2	4	-	2
6	0	0	3	0	0	3
	-	-	1	-	-	1
Total	2	11	348	52	6	419
	100	100	100	100	100	100
<u>Family income</u>						
<200	0	5	47	3	12	67
	-	46	13	7	100	15
200-300	0	2	100	16	0	118
	-	18	28	38	-	28
300-400	2	4	101	11	0	118
	100	36	28	27	-	28
400-500	0	0	52	6	0	58
	-	-	15	14	-	14
>500	0	0	59	6	0	65
	-	-	16	14	-	15
Total	2	11	359	42	12	426
	100	100	100	100	100	100
<u>Academic Interest</u>						
Scientific	1	5	314	33	4	357
	50	42	81	60	50	77
Literary	1	7	59	17	0	84
	50	58	15	31	-	18
Vocational	0	0	16	5	4	25
	-	-	4	9	50	5
Total	2	12	389	55	8	466
	100	100	100	100	100	100

TABLE A4 : Students' distribution according to their career choice

Career Choice	Responses	%
Engineering	233	29
Humanistic professions	5	1
Journalists and Artists	52	6
Health profession	271	33
Teachers	74	9
Natural scientists	9	1
Social scientists	13	2
Businessmen	11	1
Agriculturists	5	1
Lawyers	34	4
Government Employees	47	6
Nurses	26	3
Others	32	4
TOTAL	812	100

TABLE A5 : Distribution of students according to desired profession (overall sample and by types) when secondary education completed

	Engin- eering	Humanistic profession	Journa- list Artist	Health profession	Teach- ers	Natural Scientist	Social Scientist	Busin- esmen	Agricul- turalist	Law- yers	Govern- ment Employees	Nurses & Tech- nicians	Others	Total
Overall sample	233	5	52	271	74	9	13	11	5	34	47	26	32	812
%	29	1	6	33	9	1	2	1	1	4	6	3	4	100
Father work:														
Self-employed	68	1	8	45	24	0	4	0	2	2	10	4	13	190
	30	20	16	17	33	-	32	-	40	6	23	15	43	100
Government employee	123	4	37	185	36	5	7	0	2	27	23	12	11	472
	54	80	74	70	49	56	54	-	40	79	52	46	37	100
3	5	0	0	6	4	1	0	0	0	2	4	3	2	27
	2	-	-	2	5	11	-	-	-	6	9	12	7	100
4	25	0	4	20	6	3	1	1	0	1	4	3	2	70
	11	-	8	7	8	33	7	-	-	3	9	12	7	100
5	3	0	1	9	3	0	1	0	1	1	3	4	2	28
	1	-	2	3	4	-	7	-	20	3	7	15	7	100
6	3	0	0	1	0	0	0	1	0	1	0	0	0	6
	1	-	-	1	-	-	-	100	-	3	-	-	-	100
Total	227	5	50	266	73	9	13	11	5	34	44	26	30	812
	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Family income:														
<200	35	1	9	36	16	3	1	0	3	10	24	10	14	162
	15	20	18	13	22	33	8	-	60	29	52	38	45	20
200-300	65	0	14	72	35	0	3	3	1	5	10	13	8	229
	28	-	27	27	47	-	23	28	20	15	21	50	25	28
300-400	56	2	17	77	18	5	3	4	1	13	3	2	6	207
	24	40	33	29	24	56	23	36	20	38	7	8	19	25
400-500	39	2	8	41	3	0	3	0	0	3	6	1	3	109
	17	40	16	15	4	-	23	-	-	9	13	4	10	13
>500	38	0	3	44	2	1	3	4	0	3	3	0	0	101
	16	-	6	16	3	11	23	36	-	9	7	-	-	13
Total	233	5	51	270	74	9	13	11	5	34	46	26	31	808
	100	100	100	100	100	100	100	100	100	100	100	100	100	100
By Sex:														
Male	161	4	36	152	2	2	12	11	4	23	44	2	19	472
	69	80	69	57	7	22	92	100	80	70	9	8	59	58
Female	71	1	16	116	72	7	1	0	1	10	3	24	13	335
	31	20	31	43	97	78	8	-	20	36	6	92	41	42
Total	232	5	52	268	74	9	13	11	100	33	47	26	32	807

TABLE A6 : The degree of adequacy of the school curriculum

The degree of adequacy	Responses	%
Adequate	262	32
Inadequate	522	65
Not sure	25	3
TOTAL	809	100

TABLE A7 : Distribution of Student's opinion according to the degree of adequacy of school curriculum

	Adequate	Inadequate	Not sure	Total
Overall sample	252	522	25	809
%	32	65	3	100
<u>Father work</u>				
Self-employed	59	124	7	190
	23	24	29	24
Government	164	293	14	471
Employee	64	57	58	59
3	12	15	0	27
	5	3	-	3
4	17	51	3	71
	6	10	13	9
5	6	23	0	29
	2	5	-	4
6	0	0	0	0
	-	-	-	-
7	0	4	0	4
	-	1	-	1
Total	258	510	24	792
	100	100	100	100
<u>Mother Education</u>				
Primary	148	288	18	454
	57	55	72	56
Secondary	91	159	6	256
	35	30	24	32
University	15	58	0	73
	6	11	-	9
Illiterate	5	17	1	23
	2	3	4	3
Total	259	522	25	806
	100	100	100	100
<u>Family income</u>				
<200	54	94	14	162
	21	18	54	20
200-300	75	150	4	229
	29	29	15	28
300-400	71	132	3	206
	27	25	12	26
400-500	36	72	2	110
	14	14	7	14
>500	24	73	3	100
	9	14	12	12
Total	260	521	26	807
	100	100	100	100
<u>By Sex</u>				
Male	144	316	9	469
	55	61	35	58
Female	116	203	17	336
	45	39	65	42
Total	260	519	26	805
	100	100	100	100

TABLE A8 : Distribution of students according to their opinion in applying vocational courses to the curriculum; and its relation to father's work, mother's work, family income and sex.

%	Yes	No	Total	
	560 6	256 31	816 100	
	Agree	Against	Do not know	Total
Overall sample of 560	476	8	76	560
%	85	1	14	100
<u>Father work</u>				
1	112	2	13	127
	24	29	18	23
2	267	4	53	324
	57	57	74	40
3	12	0	2	14
	3	-	3	3
4	48	1	3	52
	10	14	4	10
5	22	0	0	22
	5	-	-	4
6	0	0	0	0
	-	-	-	-
7	4	0	1	4
	1	-	1	1
Total	465	7	72	544
	100	100	100	100
<u>Mother work</u>				
Housewife	260	6	38	304
	55	75	50	54
Working	214	2	38	254
	45	25	50	46
Total	474	8	76	558
	100	100	100	100
<u>Family income</u>				
<200	88	5	17	110
	19	63	22	20
200-300	139	2	14	155
	29	25	18	28
300-400	124	1	18	143
	26	12	24	25
400-500	64	0	10	74
	13	-	13	13
>500	60	0	17	77
	13	-	22	14
Total	475	8	76	559
	100	100	100	100
<u>Sex</u>				
Male	285	1	44	330
	60	14	58	59
Female	189	6	32	227
	40	86	42	41
Total	474	7	76	557
	100	100	100	100

TABLE A9 : Students' Opinions in adding vocational courses to their present curriculum

Students' opinions for adding vocational courses	Responses	%
Agree	476	85
Against	8	1
Do not know	76	14
TOTAL	560	100

TABLE A10 : The degree of the effect of adding vocational courses
(Students' opinions)

The effect of adding vocational courses	Responses	%
More rapid	29	4
Less rapid	538	66
At the same rate	243	30
TOTAL	810	100

TABLE A11 : Distribution of student's opinion whether vocational education affects their future choice

	More rapidly	Less rapidly	At the same rate	Total
Overall sample *	29	538	243	810
%	4	66	30	100
<u>Father work</u>				
1	6	134	40	180
	21	25	21	24
2	20	298	123	441
	71	57	65	59
3	0	16	7	23
	-	3	4	3
4	1	52	13	66
	4	16	7	9
5	1	23	4	28
	4	4	2	4
6	0	3	2	5
	-	1	1	1
Total	28	527	189	744
	100	100	100	100
<u>Family income</u>				
<200	6	105	40	151
	21	20	21	20
200-300	6	171	47	224
	21	32	25	30
300-400	7	141	42	190
	24	26	22	25
400-500	5	71	26	102
	17	13	13	13
>500	5	50	36	91
	17	9	19	12
Total	29	538	191	758
	100	100	100	100
<u>By Sex</u>				
Male	10	323	104	437
	34	60	55	58
Female	19	215	86	320
	66	40	45	42
Total	29	538	190	757
	100	100	100	100

TABLE A12 : The effect of the relationship between present curriculum and future plan on student career choice

Career Choice	Affect on future plans		Total
	Yes	No	
Engineering	66	167	233
	16	41	29
Humanistic profession	5	0	5
	1	-	1
Artist	42	10	52
	10	2	6
Health profession	136	134	270
	34	33	33
Teachers	63	11	74
	16	3	9
Natural scientist	4	5	9
	1	1	1
Geologist	5	8	13
	1	2	2
Businessmen	3	7	11
	1	2	1
Agriculturalist	5	0	5
	1	-	1
Lawyer	22	12	34
	5	3	4
Government Employee	28	19	47
	7	5	6
Nurses and Technicians	15	11	26
	4	3	3
Others	10	22	32
	3	5	4
Total	405	406	811
	100	100	100

TABLE A13 : The effect of adding vocational courses on student's career choice

Career Choice	The Effect			Total
	More rapidly	Less rapidly	At the same rate	
Engineering	8	182	41	231
	28	33	23	30
Humanistic profession	0	4	0	4
	-	1	-	1
Artist	3	30	16	49
	10	6	9	6
Health profession	13	163	71	247
	45	27	39	33
Teachers	3	44	24	71
	10	8	1	9
Natural scientist	1	8	0	9
	4	2	0	1
Geologist	0	13	0	13
	-	2	-	2
Businessmen	0	9	0	9
	-	2	-	1
Agriculturalist	0	5	0	5
	-	1	-	1
Lawyer	1	15	9	25
	3	3	5	3
Government employee	0	28	15	43
	-	5	8	6
Nurses & technicians	0	20	4	24
	-	4	2	3
Others	0	30	0	30
	-	6	-	4
Total	29	551	180	760
	4	72	24	
	100	100	100	100

TABLE A14 : Students' opinions of the adequacy of the school curriculum and its relation to their career choice

Career choice	School curriculum			
	Adequate	Inadequate	Not sure	Total
Engineering	16	206	9	231
	6	40	36	28
Humanistic profession	2	3	0	5
	1	1	-	1
Artist	32	19	0	51
	12	4	-	6
Health profession	107	157	7	271
	40	30	28	33
Teachers	45	25	4	74
	17	5	16	9
Natural scientist	0	9	0	9
	-	2	-	1
Geologist	0	13	0	13
	-	2	-	2
Businessmen	4	7	0	11
	2	1	-	2
Agriculturalist	0	5	0	5
	-	1	-	1
Lawyer	20	12	2	34
	8	2	8	4
Government employee	21	25	1	47
	8	5	4	6
Nurses & technicians	7	17	2	26
	3	3	8	3
Others	7	25	0	32
	3	5	-	4
Total	262	521	25	809
	32	64	4	100
	100	100	100	100

TABLE A15 : The influence of advice on students' career choice

Career choice	Receive any help in directing their choice		
	Yes	No	Total
Engineering	140	93	233
	30	27	29
Humanistic profession	5	0	5
	1	-	1
Artistic	25	27	52
	5	8	6
Health profession	177	91	263
	38	27	33
Teachers	48	26	74
	10	8	9
Natural scientist	5	3	8
	1	1	1
Geologist	9	4	13
	2	1	2
Businessmen	4	7	11
	1	2	1
Agriculturalist	3	2	5
	1	1	1
Lawyer	19	15	34
	4	4	4
Government employee	17	29	46
	4	8	6
Nurses & technicians	7	19	26
	2	6	3
Others	7	25	32
	2	7	4
Total	466	341	807
	58	42	100
	100	100	100

TABLE A16 : Source of help in determining career choice

Career Choice	Career Office	School staff	Parents	Friends	Relatives	Total
Engineering	0	0	121	16	2	139
	-	-	31	29	33	30
Humanistic professions	0	1	2	2	0	5
	-	8	1	4	-	1
Artistic professions	0	5	10	10	0	25
	-	38	3	18	-	5
Health profession	1	2	162	11	0	176
	50	15	42	20	-	38
Teachers	1	1	43	4	1	50
	50	8	11	7	17	11
Natural scientist	0	0	6	0	1	7
	-	-	1	-	17	2
Geologist	0	0	5	3	0	8
	-	-	1	5	-	2
Businessmen	0	0	4	0	0	4
	-	-	1	-	-	1
Agriculturalist	0	1	2	0	0	3
	-	8	1	-	-	1
Lawyers	0	2	13	3	0	18
	-	15	3	6	-	3
Government employee	0	0	12	4	2	18
	-	-	3	7	33	3
Nurses & technicians	0	1	5	1	0	7
	-	8	1	2	-	2
Others	0	0	5	1	0	6
	-	-	1	2	-	1
Total	2	13	390	55	6	466
	1	3	83	11	2	100
	100	100	100	100	100	100

TABLE A17 : Distribution of students' career choice according to their academic interest

Career choice	Students' academic interest			
	Scientific	Literary	Vocational	Total
Engineering	225	2	6	233
	38	1	10	29
Humanistic profession	3	2	0	5
	1	1	-	1
Artist	3	48	1	52
	1	29	2	6
Health profession	265	2	2	270
	45	1	3	33
Teachers	9	58	7	74
	1	36	12	9
Natural scientist	9	0	0	9
	1	-	-	1
Geologist	13	0	0	13
	2	-	-	2
Businessmen	4	4	3	11
	1	2	5	1
Agriculturalist	5	0	0	5
	1	-	-	1
Lawyer	12	22	0	34
	2	14	-	4
Government employee	18	18	11	47
	3	11	19	6
Nurses & technicians	21	0	5	26
	4	-	8	3
Others	0	8	24	32
	-	5	41	4
Total	587	164	59	811
	73	20	7	100
	100	100	100	100

TABLE A18 : Students' opinions of the adequacy of the secondary school curriculum and its effect on their academic choice

Students' Opinion	Academic interest			
	Scientific	Literary	Vocational	Total
Adequate	146	105	10	261
	25	65	17	32
Inadequate	420	56	45	522
	72	34	75	65
Not sure	20	1	5	26
	3	1	8	3
Total	586	162	60	809
	72	20	8	100
	100	100	100	100

Table A19 : The effect of adding vocational courses on students' academic interest

The Effect	Academic interest			
	Scientific	Literary	Vocational	Total
More rapidly	22	6	1	29
	4	4	2	4
Less rapidly	400	42	44	540
	72	29	76	71
At the same rate	136	96	13	191
	4	67	22	25
Total	558	144	58	760
	73	19	8	100
	100	100	100	100

TABLE A20 : Relation between source of help and student's opinion of adding vocational courses to the present curriculum in relation to the sex of the students

	Source of help	The Effect			Total
		More rapidly	Less rapidly	At the same rate	
MALE:	Career Officer	0	1	0	1
		-	1	-	1
	School staff	0	5	1	6
		-	3	2	2
	Parents	5	142	53	200
		83	82	84	83
	Friends	1	21	9	31
		17	12	14	13
	Relatives	0	3	0	3
		-	2	-	1
	Total	6	172	63	241
		3	71	26	100
		100	100	100	100
FEMALE:	Career Officer	0	1	0	1
		-	1	-	1
	School staff	0	4	1	5
		-	3	2	3
	Parents	9	103	44	156
		90	84	88	86
	Friends	1	14	5	20
		10	12	10	10
	Relatives	0	0	0	0
		-	-	-	-
	Total	10	122	50	182
		6	67	27	100
		100	100	100	100

APPENDIX II

Tables B1 to B22

TABLE B1 : Student's academic specialisation in upper secondary schools (Overall sample)

	Scientific	Literary	Total
Overall sample	369 75	122 25	491 100
Father work: 1	115 31	29 25	144 30
2	190 52	58 51	248 51
3	15 4	6 5	21 4
4	38 10	20 18	58 12
5	9 2	1 1	10 2
6	2 1	0 -	2 1
Total	369 100	114 100	483 100
Family income: 200	54 15	23 21	77 16
200-300	90 25	51 45	141 29
300-400	84 23	22 19	106 22
400-500	85 23	14 12	99 21
500	53 14	3 3	56 12
Total	366 100	113 100	479 100
By sex: Male	267 72	54 47	321 66
Female	102 28	62 53	164 34
Total	369 100	116 100	485 100

TABLE B2 : Reasons given by students for undertaking their secondary education

Overall

Reasons	Number of responses	Percentage
Need for particular professional qualification	15	3
Personal interest	310	64
Financial remuneration	15	3
Country's need	56	11
Social status	17	4
Parent's wish	42	8
Ease and comfort in career	5	1
Father's occupation	17	4
Financial needs	4	1
No particular reason	4	1
Others	0	0
Total	485	100

TABLE B3: Source of different reasons for students taking their educational courses

Reasons:	Need for particular professional qualifications	Personal Interest	Financial Remuneration	Country's Need	Social Status	Parent's wishes	Ease and comfort in career	Father's Occupation	Financial Needs	No Particular Reason	Total
Overall sample	15	310	15	56	17	42	5	17	4	4	485
%	3	64	3	11	4	8	1	4	1	1	100
Father Educ:											
1	6	88	2	22	3	19	1	2	2	1	146
2	40	28	13	39	18	45	25	12	50	25	30
3	7	166	9	24	11	18	0	13	0	0	248
4	47	53	60	42	64	43	-	76	-	-	51
5	0	13	1	2	0	1	1	1	2	0	21
6	-	4	7	4	-	2	25	6	50	-	4
7	2	36	1	6	2	4	2	1	0	3	58
8	13	12	13	11	12	10	50	6	-	75	12
9	0	6	1	2	1	0	0	0	0	0	10
10	-	2	7	4	6	-	-	-	-	-	2
11	0	2	0	0	0	0	0	0	0	0	2
12	-	1	-	-	-	-	-	-	-	-	1
Total	15	311	15	56	17	42	4	17	4	4	485
	100	100	100	100	100	100	100	100	100	100	100
Family income:											
<200	7	55	4	8	1	2	1	0	0	0	78
200-300	48	18	27	15	6	5	25	-	-	-	16
300-400	2	88	1	22	10	7	3	2	2	3	140
400-500	13	29	6	40	58	17	75	13	75	60	29
>500	2	77	4	12	1	7	0	2	1	1	108
	13	25	27	22	6	17	-	13	25	20	23
	2	61	4	9	1	12	0	7	0	1	97
	13	20	27	16	6	29	-	43	-	20	20
	2	25	2	4	4	14	0	5	0	0	56
	13	8	13	7	24	32	-	31	-	-	12
Total	15	306	15	55	17	42	4	16	3	5	478
	100	100	100	100	100	100	100	100	100	100	100
By Sex:											
Male	4	207	11	44	13	28	0	11	0	1	320
Female	27	66	73	79	76	67	-	65	-	20	66
	11	105	4	12	4	14	5	6	2	4	167
	73	34	27	21	24	33	100	35	100	80	34
Total	15	312	15	56	17	42	5	17	2	5	487
	100	100	100	100	100	100	100	100	100	100	100

TABLE B4: Distribution of student's reasoning for undertaking their specialised streams

Reasons	Scientific	Literary	Total
Particular profession/ qualification	10	5	15
	3	5	3
Personal interest	222	88	310
	66	76	64
Financial remuneration	15	0	15
	4	-	3
Country's need	46	10	56
	12	9	12
Social status	13	4	17
	4	3	4
Parent's wishes	41	1	42
	11	1	9
Ease and comfort in career	4	1	5
	1	1	1
Father's occupation	16	1	17
	4	1	3
Financial needs	2	1	3
	1	1	1
No particular reasons	0	4	4
	-	3	1
Total	369	116	485
	100	100	100

TABLE B5 : Distribution of students' desired profession

Career choice	Respondent	Percentage
Engineering	172	35
Natural scientist	15	3
Athletics	13	3
Artist	4	1
Health profession	132	27
Nurses	28	6
Teachers	19	4
Government employee	36	7
Businessmen	0	0
Agriculturist	4	1
Social scientist	5	1
Lawyers	31	6
Journalist	28	6
Others	0	0
Total	487	100

TABLE 6B : Distribution of students according to their desired profession (overall sample) and by type of student

	Engin- eering	Natural Scientist	Humanistic Profession	Artist	Health Profession	Nurses & Lab. Tech- nicians	Teachers	Govrmt. Employees	Agricul- turalists	Social Scientist	Lawyers	Journalist	Total
Overall sample	172 35	15 3	13 3	4 1	132 27	28 6	19 4	36 7	4 1	5 1	31 6	28 6	487 100
<u>Father work</u>	74	10	9	2	85	17	8	16	0	2	12	15	250
1	43	63	70	50	64	61	42	24	-	40	39	54	51
2	68	2	2	1	30	7	7	8	4	1	13	4	145
	40	13	15	25	22	25	38	22	100	20	42	14	30
3	8	0	0	1	5	0	2	2	0	1	0	2	21
	5	-	-	25	4	-	10	6	-	20	-	7	4
4	17	4	2	0	9	3	2	8	0	1	6	6	58
	10	24	15	-	7	10	10	22	-	20	19	21	12
5	2	0	0	0	4	1	0	2	0	0	0	1	10
	1	-	-	-	3	4	-	6	-	-	-	4	2
6	2	0	0	0	0	0	0	0	0	0	0	0	2
	1	-	-	-	-	-	-	-	-	-	-	-	1
Total	171	16	13	4	133	28	19	36	4	5	31	28	486
	100	100	100	100	100	100	100	100	100	100	100	100	100
<u>Family income</u>	24	7	2	0	17	11	2	11	0	1	4	7	78
<200	14	44	15	-	13	11	11	32	-	17	13	25	16
200-300	35	6	5	2	33	5	12	12	0	4	16	12	142
	20	38	39	50	25	19	63	35	-	66	52	42	29
300-400	50	2	3	0	27	6	3	3	1	0	6	6	107
	29	12	23	-	21	22	16	9	100	-	19	21	22
400-500	38	1	3	1	32	9	1	6	0	1	3	3	99
	22	6	23	25	25	33	5	18	-	17	10	11	21
>500	25	0	0	1	21	4	1	2	0	0	2	0	56
	15	-	-	25	16	15	5	6	-	-	6	-	12
Total	172	16	13	4	130	27	19	34	1	6	31	28	482
	100	100	100	100	100	100	100	100	100	100	100	100	100
<u>By Sex</u>	132	0	11	4	91	21	0	34	0	1	8	17	321
Male	77	-	85	100	68	75	-	94	-	17	26	61	66
Female	39	16	2	0	42	7	19	2	1	5	23	11	167
	23	100	15	-	32	25	100	6	100	83	74	39	34
Total	172	16	13	4	133	28	19	36	1	6	31	28	488
	100	100	100	100	100	100	100	100	100	100	100	100	100

TABLE B7 : Source of career information for upper secondary students (Overall sample and by type of student)

Students get information						
		<u>Yes</u>	<u>No</u>			
		322	169			
	%	66	34			
Source		Parents	Relatives	Friends	Mass Media	Total
Overall sample		236	15	49	22	322
		73	5	15	7	100
Father work:	1	62	6	14	3	85
		26	40	30	14	27
	2	133	7	24	15	179
		57	47	51	67	56
	3	13	2	1	1	17
		6	13	2	5	5
	4	23	0	6	2	31
		8	-	13	9	10
	5	4	0	2	1	7
		2	-	4	5	2
	6	0	0	0	0	0
		-	-	-	-	-
Total		235	15	47	22	319
		100	100	100	100	100
Family income:						
	<200	21	4	19	3	47
		9	29	39	14	15
	200-300	54	4	12	12	82
		23	29	25	57	26
	300-400	58	1	7	4	70
		25	7	14	19	22
	400-500	53	5	9	2	69
		23	35	18	10	22
	>500	46	0	2	0	48
		20	-	4	-	15
Total		232	14	49	21	316
		100	100	100	100	100
By sex: Male		158	5	27	16	206
		67	33	55	73	64
Female		77	10	22	6	115
		33	67	45	37	36
Total		236	15	49	22	322
		100	100	100	100	100

TABLE B8 : Source of information offered to students according to their academic study and career choice

Source of information	Responses	Percentage
Parents	236	73
Relatives	15	5
Friends	49	15
Mass media	22	7
Total	322	100

TABLE B9 : The degree of curriculum relevancy to the student's future plans

Degree of relevancy	Responses	Percentage
Relevant	36	7
Hardly relevant	284	59
Not relevant	165	34
Total	485	100

TABLE B10 : Distribution of students according to the degree of relevancy of their present study to their further education

	Relevant	Hardly Relevant	Not Relevant	Total
Overall sample	36 7	284 59	165 34	485 100
Father work: 1	10 28	81 29	54 33	145 30
2	14 39	152 54	83 51	249 51
3	2 5	12 4	7 4	21 4
4	10 28	31 10	17 10	58 16
5	0 -	6 2	4 2	10 2
6	0 -	2 1	0 -	2 1
Total	36 100	284 100	165 100	485 100
Family income: 200	7 20	47 17	24 15	78 16
200-300	12 35	83 29	47 28	142 30
300-400	7 20	68 24	32 20	107 22
400-500	5 14	56 20	37 22	98 20
500	4 11	28 10	24 15	56 12
Total	35 100	282 100	164 100	481 100
By Sex: Male	12 33	183 64	125 76	320 66
Female	24 69	103 36	40 24	167 34
Total	36 100	286 100	165 100	487 100

TABLE B11 : The degree of curriculum relevancy and its effect on students' career choice

Career Choice	The degree of relevancy			Total
	Relevant	Hardly Relevant	Not Relevant	
Engineering	6	90	76	172
	17	32	46	35
Natural scientist	3	10	3	16
	9	3	2	3
Humanistic profession	1	8	5	14
	3	2	3	3
Artist	0	0	3	3
	-	-	2	1
Health profession	10	83	39	132
	28	29	24	27
Nurses & Laboratory technicians	1	19	8	28
	3	7	5	6
Teachers	4	13	2	19
	10	5	1	4
Government employee	1	23	12	36
	3	8	6	7
Businessmen	0	0	0	0
	-	-	-	-
Agriculturalist	0	0	0	0
	-	-	-	-
Social scientist	0	5	1	6
	-	2	1	1
Lawyers	6	18	8	32
	17	6	4	7
Journalist	4	18	8	30
	10	6	4	6
Others	0	0	0	0
	-	-	-	-
Total	36	287	165	488
	100	100	100	100

TABLE B12 : Distribution of student's opinion of willingness to do training courses (Overall sample and by type of student)

	Yes	No	Total
Overall sample	407	78	485
%	84	16	100
Father work: 1	130	15	145
	32	19	30
2	205	44	249
	51	56	52
3	17	4	21
	4	5	4
4	43	13	56
	11	17	12
5	10	2	12
	2	3	2
6	0	0	0
	-	-	-
Total	405	78	483
	100	100	100
Family income: 200	63	14	77
	16	18	16
200-300	121	20	141
	30	27	30
300-400	88	19	107
	22	25	22
400-500	84	14	98
	21	18	20
500	47	9	56
	11	12	12
Total	403	76	479
	100	100	100
By sex: Male	263	57	320
	65	73	66
Female	144	21	165
	35	27	34
Total	407	78	485
	100	100	100

TABLE B13 : Student's opinion on adding vocational courses
in relation to their future career choices

Career choice	Yes	No	Total
Engineers	166	6	172
	41	8	35
Natural scientist	13	3	16
	3	4	3
Humanistic profession	8	5	13
	2	6	3
Artist	4	0	4
	1	-	1
Health profession	101	30	131
	25	39	27
Nurses & Laboratory Technicians	21	7	28
	5	9	6
Teachers	14	5	19
	3	6	4
Government employee	28	8	36
	7	10	7
Businessmen	0	0	0
	-	-	-
Agriculturalist	3	0	3
	1	-	1
Social scientist	4	2	6
	1	3	1
Lawyers	27	4	31
	6	5	6
Journalist	19	8	27
	5	10	6
Others	0	0	0
	-	-	-
Total	408	78	486
	100	100	100

TABLE B14 : Distribution of student's opinion of the relation of their present study to future courses

	Yes	No	Total
Overall sample	242	249	491
%	49	51	100
Father work: 1	63	82	145
	34	33	30
2	122	127	249
	51	52	51
3	13	8	21
	6	3	4
4	33	25	58
	14	10	12
5	6	3	9
	3	1	2
6	0	2	2
	-	1	1
Total	242	242	484
	100	100	100
Family income: 200	36	41	77
	15	17	16
200-300	62	80	142
	26	34	30
300-400	54	53	107
	22	22	22
400-500	55	43	98
	23	18	20
500	34	22	56
	14	9	12
Total	241	239	480
	100	100	100
By sex: Male	156	163	319
	64	67	65
Female	88	79	167
	36	33	35
Total	244	242	486
	100	100	100

TABLE B15 : Distribution of the effect of student's present studies on their career choice

Career choice	Yes	No	Total
Engineer	37	135	172
	15	56	35
Natural scientist	9	7	16
	4	3	3
Humanistic profession	7	6	13
	3	2	2
Artist	2	2	4
	1	1	1
Health profession	81	51	132
	33	21	27
Nurses & Laboratory technicians	19	9	28
	7	4	6
Teacher	16	3	19
	7	1	4
Government employee	27	8	35
	11	3	7
Businessmen	1	0	1
	1	-	1
Agriculturalist	0	1	1
	-	1	1
Social scientist	3	3	6
	1	1	1
Lawyers	21	10	31
	8	4	5
Journalist	20	8	28
	8	3	6
Others	1	0	1
	1	-	1
Total	244	243	487
	100	100	100

TABLE B16 : The extent of dependence of the choice of career on the success of the present study

Extent of dependence	Responses	Percentage
Greatly	377	78
Somewhat	94	19
Not dependent	15	3
Total	486	100

TABLE B17 : Distribution of student's opinion according to the dependence of their future plans on the success of their present studies (Overall sample)

	Success dependent			Total
	Greatly	Somewhat	Not	
Overall sample	377	94	15	486
%	78	19	3	100
Father work: 1	107	34	3	144
	36	36	20	30
2	193	45	10	248
	48	48	67	51
3	19	2	0	21
	5	2	-	4
4	43	13	2	58
	12	14	13	12
5	10	0	0	10
	3	-	-	2
6	2	0	0	2
	1	-	-	1
Total	374	94	15	483
	100	100	100	100
Family income: 200	57	18	3	78
	15	19	20	16
200-300	106	29	7	142
	29	32	47	30
300-400	83	20	3	106
	22	22	20	22
400-500	80	16	2	98
	22	17	13	20
500	46	9	0	55
	12	10	-	12
Total	372	92	15	479
	100	100	100	100
By sex: Male	273	41	5	319
	73	44	33	66
Female	103	53	10	166
	27	56	67	34
Total	376	94	15	485
	100	100	100	100
Academic interest: Scientific	301	55	11	367
	80	60	73	76
Literary	75	37	4	116
	20	40	27	24
Total	376	92	15	483
	100	100	100	100

TABLE B18 : The degree of dependence of choice of career on the success of students' present studies

	Greatly dependent	Somewhat dependent	Not dependent	Total
Overall sample	376	94	15	485
%	74	19	3	100
Source of help:				
Parent	181	51	2	234
	74	71	50	73
Relatives	11	4	0	15
	5	5	-	5
Friends	33	15	1	49
	13	21	25	15
General information	19	2	1	22
	8	3	25	7
Total	244	72	4	320
	100	100	100	100

TABLE B19 : The relation between the degree of dependency of students' future plans on the success in their present studies and the relevancy to the curriculum

	Greatly dependent	Somewhat dependent	Not dependent	Total
Overall sample	376	94	15	485
%	78	19	3	100
Relevancy:				
Relevant	24	12	0	36
	6	13	-	8
Hardly relevant	220	60	7	287
	59	64	47	59
Irrelevant	132	22	8	162
	35	23	53	33
Total	376	94	15	485
	100	100	100	100

TABLE B20 : The degree of dependence of students' career choice on their success in their present studies

	Greatly dependent	Somewhat dependent	Not dependent	Total
Overall sample	379	93	14	486
%	78	19	3	100
<u>Career Choice:</u>				
Engineering	146	22	1	169
	39	24	7	35
Natural scientist	7	9	0	16
	2	10	-	3
Athletics	11	2	0	13
	3	2	-	3
Artist	2	0	2	4
	1	-	14	1
Health professions	105	21	7	133
	28	23	51	27
Nurses & Laboratory Technicians	24	3	1	28
	6	3	7	6
Teachers	13	6	0	19
	3	6	-	4
Government employee	32	4	0	36
	8	4	-	7
Businessmen	0	0	0	0
	-	-	-	-
Agriculturalist	3	0	0	3
	1	-	-	1
Social scientist	5	1	0	6
	1	1	-	1
Lawyers	15	15	1	31
	4	16	7	7
Journalist	16	10	2	28
	4	11	14	5
Others	0	0	0	0
	-	-	-	-
Total	379	93	14	486
	100	100	100	100

TABLE B21 : Distribution of student's opinion in getting educational advice

	Educational advice			
	Yes	No	No opinion	Total
Overall sample	428	3	4	435
%	98	1	1	100
<u>Academic interest:</u>				
Scientific	330	1	4	335
	77	100	100	77
Literary	98	0	0	98
	23	-	-	23
Total	428	1	4	433
	100	100	100	100
<u>Career choice:</u>				
Engineering	155	0	0	155
	36	-	-	36
Natural scientist	13	0	0	13
	3	-	-	3
Athletics	9	0	0	9
	2	-	-	2
Artist	2	0	0	2
	1	1	1	1
Health profession	118	0	3	121
	27	-	75	27
Nurses & Laboratory Technicians	26	0	0	26
	6	-	-	6
Teachers	16	0	1	17
	4	-	25	4
Government employee	33	0	0	33
	8	-	-	7
Businessmen	0	0	0	0
	-	-	-	-
Agriculturalist	3	0	0	3
	1	-	-	1
Technologist	5	0	0	5
	1	-	-	1
Social scientist	28	1	0	29
	6	100	-	7
Journalist	22	0	0	22
	5	-	-	5
Others	0	0	0	0
	-	-	-	-
Total	430	1	4	435
	100	100	100	100

TABLE B22 : Students' opinion regarding undertaking training courses with their present curriculum (Overall sample and student group)

Students' opinion regarding undertaking training courses			
	Yes	No	Total
Overall sample	413	78	491
%	84	16	100
<u>Secondary school level:</u>			
Lower	333	3	336
	82	100	82
Upper	74	0	74
	18	-	18
Total	407	3	410
	100	100	100
<u>Relevance:</u>			
Relevant	22	13	35
	6	17	7
Hardly relevant	241	45	286
	59	58	59
Not relevant	145	20	165
	35	26	34
<u>Educational relation:</u>			
Yes	175	68	243
	43	87	50
No	232	10	242
	57	13	56
Total	407	78	485
	100	100	100
<u>Univ. alternative:</u>			
Yes	383	71	454
	94	91	93
No	25	7	32
	6	9	7
Total	408	78	486
	100	100	100

APPENDIX III

1. Key to the Rank Order Used in the Scale of Father's Work

- 1: Self employed
- 2: Government employee
- 3: Unskilled worker
- 4: Skilled worker
- 5: Lower business
- 6: Higher business

2. List of Jobs under Different Fields of Work

a) Humanistic Professions

- Arabic
- English
- Fine Art
- Foreign language
- Philosophy
- Religion

b) Health Professions

- Medicine
- Dentistry
- Pharmacy

c) Engineering

- Chemical
- Civil
- Electrical
- Industrial
- Mechanical
- Marine

d) Social Sciences

- Economics (Home economics)
- History
- Psychology
- Geography
- Political science
- Sociology and anthropology

e) Natural Sciences

- Biological sciences
- Chemistry
- Physics
- Mathematics
- Pre-medicine
- Earth science
- Other physical science

أسئلة خاصة بطلبة الصفوف المنتهية للمرحلة المتوسطة

١- الحالة الاجتماعية

٢. تاريخ الميلاد :
٣. الجنس : (ضع اشارة صح امام مايناسبك)
- ذكر :
- أنثى :
٤. أسم المدرسة :
٥. المستوى التعليمي للوالد (ضع اشارة صح أمام مايناسبك)
- أ. التعليم الابتدائي
- ب. التعليم الثانوي
- ج. التعليم الجامعي
٦. وظيفة الوالد
٧. المستوى التعليمي للأم (ضع اشارة صح أمام مايناسبك)
- أ. التعليم الابتدائي
- ب. التعليم الثانوي
- ج. التعليم الجامعي
- د. غير متعلمة
٨. ماهو نوع العمل الذي تقوم به الام :
- أ. ربة بيت
- ب. موظفة (أذكر نوع الوظيفة رجاءاً)
٩. ماهو الدخل الشهر للعائلة :
- دينار عراقي .

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٢- الحالة التعليمية

١. ما هو/هي رغبتك أكاديميا في التخصص في التعليم الثانوي :

أ- الفرع العلمي

ب- الفرع الأدبي

ج- التعليم المهني
(الصناعي - الزراعي - التجاري)

٢. هل هناك علاقة بين دراستك الحالية وماتطمح اليه في المستقبل على المستوى الوظيفي (ضع إشارة صح أمام ما يناسبك) .

نعم لا

٣. هل تتلقى أي مساعدة في تخطيط حياتك العلمية والعملية المستقبلية (ضع إشارة صح أما ما يناسبك) .

نعم لا

٤. إذا كان الجواب "نعم" ، ضع علامة صح/مصدر المساعدة :

أ. المرشد التربوي

ب. مدير/ مديرة المدرسة أو حتى أحد المدرسين /

المدرسات

ج. عائلتك

د. اصدقاءك

هـ. اقربائك

و. الاتحاد الوطني لطلبة العراق في مدرستك

ز. اتحاد شباب العراق في منطقتك

٥. عند اكمالك مرحلة التعليم الثانوى ماذا تود ان تكون

- | | | |
|-----|--|--------------------------|
| ٠١ | مهندس / مهندسة | <input type="checkbox"/> |
| ٠٢ | اقتصادى / اجتماعي / جغرافي / طبيب نفساني / مؤرخ | <input type="checkbox"/> |
| ٠٣ | صحفي / رسام / فنان | <input type="checkbox"/> |
| ٠٤ | صيدلي / طبيب / طبيب بيطرى / طبيب اسنان | <input type="checkbox"/> |
| ٠٥ | مدرس / مدرسة | <input type="checkbox"/> |
| ٠٦ | كيمياوى / متخصص بالرياضيات | <input type="checkbox"/> |
| ٠٧ | متخصص بعلم الارض (جيولوجي) | <input type="checkbox"/> |
| ٠٨ | متخصص بعلم النباتات / الحيوانات | <input type="checkbox"/> |
| ٠٩ | رجل اعمال | <input type="checkbox"/> |
| ٠١٠ | زراعي | <input type="checkbox"/> |
| ٠١١ | محامي | <input type="checkbox"/> |
| ٠١٢ | موظف حكومى | <input type="checkbox"/> |
| ٠١٣ | ممرض / ممرضة | <input type="checkbox"/> |
| ٠١٤ | او ترغب بالقيام بعمل اخر غير ما ذكر اعلاه
يرجى تحديد ما تود القيام به في المستقبل . | <input type="checkbox"/> |

٦. هل تعتقد ان الدروس التي تتلقاها في مدرستك هي :

كافية غير كافية

لا أعلم

(ضع علامة صح امام ما يناسبك)

٧. واذا كان الجواب غير كافي علميا ، فهل تفصل بأضافة
دروس اخرى عملية (ضع علامة صح امام ما يناسبك)

نعم لا

٨ . واذا كان الجواب نعم ، فهل تفضل بأضافة دروس تعلمك
 حرفا ونخصصات متنوعة كالميكانيك ، والخرائطه ، والخزف ،
 والنجارة وغيرها الى المنهاج التدريسي الحالي

نعم..... لا.....

لا أعلم.....



٩ . ماذا تعتقد اذا كانت اضافة الدروس العملية بأضافتها
 الى المنهاج العلمي الحالي تؤثر على سير دراستك
 وخططك المستقبلية .

كثيرا جدا..... قليلا.....

لا تؤثر.....



The Questionnaires: Four types of questionnaires were prepared; one for students in the final year of lower secondary school, one for students in the final year of upper secondary school, the third for teachers/headmasters, and the fourth for employers.

I. Questionnaires for students in the final year of lower secondary school age - 16 years old

1. Name _____
2. Date of birth _____
3. Sex: Male _____ Female _____
4. Name of the school _____
5. Father's education: Primary _____
Secondary _____
University _____
6. What kind of work does he do? _____
7. Mother's education: Primary _____
Secondary _____
University _____
None _____
8. What kind of work does she do? _____
Housewife _____ Working (specify please) _____
9. Family income _____ I.D./month _____

II Educational Background

1. What is your specific academic interest _____
Scientific _____ Literary _____ Vocational _____
2. Is there any relationship for your study
to your future plan _____
Yes ___ No ___
3. Do you get any help to direct your choice
of study _____
Yes ___ No ___

4. If yes, check the source of help: _____
- a) Careers officer _____
- b) Teacher/headmaster _____
- c) Parent, friends or relatives -- _____
- d) Student union/Youth counsellors _____
5. When you complete your secondary education what do you want to be?
1. Engineer _____ 7. Businessman _____
2. Natural scientist _____ 8. Agriculturalist _____
3. Social Scientist _____ 9. Lawyer _____
4. Humanistic professional _____
5. Health professional _____ 10. Government employee _____
6. Teacher _____ 11. Technician _____
12. Other (specify) _____
6. Do you consider the courses you study in your school in relation to your future plan _____
- Adequate _____ Inadequate _____ Not sure _____
7. If it is inadequate, do you prefer introducing more practical subjects _____
- Yes _____ No _____
8. If yes, what is your opinion on introducing vocational courses within the present curriculum _____
- Agree _____ Against _____ I do not know _____
9. How do you think vocational courses will effect your future choice _____
- More rapidly _____ Less rapidly _____ At the same rate _____

١- الحالة الاجتماعية

- ٠٢ تاريخ الميلاد:
- ٠٣ الجنس: (ضع اشارة صح أمام مايناسبك)
- ذكر :
- أنثى :
- ٠٤ أسم المدرسة :
- ٠٥ المستوى التعليمي للوالد (ضع اشارة صح أما مايناسبك)
- أ . التعليم الابتدائي
- ب . التعليم الثانوي
- ج . التعليم الجامعي

٠٦ وظيفة الوالد

٠٧ المستوى التعليمي للأم :

أ. التعليم الابتدائي

ب. التعليم الثانوي

ج. التعليم الجامعي

د. غير متعلمة

٠٨ ما هو نوع العمل الذي تقوم به الام

أ. ربة بيت

ب. موظفة (مع ذكر الوظيفة رجا^{١٤})

٠٩ ما هو الدخل الشهر للعائلة

..... دينار عراقي

٢- الحالة التعليمية

٠١ ما هو اختصاصك الدراسي (ضع علامة صح امام ما يناسبك)

الفرع العلمي الفرع الادبي

٠٢ عندما تكمل دراستك الاعدادية ، ماذا تتمنى ان تكون /

تكوني :

٠١ مهندس / مهندسة

٠٢ باحث اجتماعي

٠٣ اقتصادي

٠٤ رياضي

٠٥ رسام

٠٦ طبيب / طبيب بيطري / طبيب اسنان

- ٠٧ صيدلــي
- ٠٨ مـدرس
- ٠٩ موظف حكومي
- ٠١٠ رجل أعمال
- ٠١١ ررَاعِي
- ٠١٢ مساعد مختبر / كوادِر وسطي / عامل فني
- ٠١٣ مؤرخ / جغرافي / متخصص بالاثار
- ٠١٤ متخصص باللغات
- ٠١٥ صحفي / صحفية
- ٠١٦ أو أى وظيفة ترغب القيام بها غير مذكورة اعلاه

٠٣ ماهو السبب الذى دفعك لاختيار فرعك الدراسى الحالى

- ٠١ من اجل الحصول على وظيفة معينة
- ٠٢ رغبة شخصية
- ٠٣ تحصيل مالى اكثر
- ٠٤ حاجة القطر الماسة لتخصصي
- ٠٥ للمركز الاجتماعى العالى
- ٠٦ لتحقيق رغبة العائلة
- ٠٧ للحصول على وظيفة مريحة فى المستقبل
- ٠٨ من اجل استمرار وظيفة الوالـد
- ٠٩ من اجل حاجة مادية ملحـة
- ٠١٠ ليس هناك أى سبب لاختيارى
- ٠١١ اذا كان هناك سبب اخر يرجى ذكره

٠٤ هل تعتقد ان هناك علاقة بين دراستك الحالية ودراسـتك

الجامعية مستقبلا .

لا

نعم

- ٥٠ في حالة عدم حصولك على درجات كافية توّهلك للذهاب الى الكلية التي تطمح في الذهاب اليها ، هل توافق على الانضمام الى أى كلية تنتسب اليها .
- نعم..... لا.....
- ٦٠ في حالة اجابتك بنعم ، فماذا تقبل .
- الاختيار الاول.....
- الاختيارالثاني.....
- ٧٠ هل تفضل القيام بدراسة دروس مهنية مع دروسك النظرية .
- نعم..... لا.....
- ٨٠ اذا كان جواب نعم ، فبأى مرحلة دراسية تعتقد من الافضل اعطاء الطلاب الدروس المهنية .
- المرحلة المتوسطة.....
- المرحلة الاعدادية.....
- ٩٠ بأعتقادك الشخصي ، هل تتصور ان الدروس التي تلتقاها حاليا في مدرستك لها علاقة قوية بما يحتاجه المجتمع أولا ، والحاجة الوظيفية ثانيا ، والتعليم الجامعي اخيرا .
- لها علاقة قوية..... بعض الشيء.....
- ليس لها علاقة.....

٣- المعلومات الوظيفية

- ١٠ هل تعتقد بأنك قد تلقيت معلومات كافية عن المجالات

الوظيفية المتوفرة لك بعد تخرجك من الجامعة والتي لها علاقة مباشرة بتخصصك الدراسي .

نعم..... لا.....

٢. اذا كان الجواب نعم ، فمن كان مصدر هذه المعلومات لك :

١. العائلة.....

٢. الاقارب.....

٣. الاصدقاء.....

٤. الاتحاد الوطني لطلبة العراق في مدرستك.....

٥. مركز اتحاد شباب العراق في منطقتك.....

٦. مصدر معلومات عامة كأحد هذه المصادر :-

أ. كتاب..... ب. الجرائد.....

ج. الراديو/التلفزيون.....

د. أو أحد الوسائل الاخرى.....

٣. اذا لم تتلق أى معلومات ، فهل ترغب ان توضح لك المجالات الوظيفية التي لها علاقة بتخصصك الدراسي والمتوفرة في القطر :

نعم..... لا.....

لا أدري.....

٤. اذا توفرت لك فرصة التعرف على قابليتك الدراسية أولاً وما يتوفر من تخصصات وظيفية ، فهل لديك استعداد لتغيير تخصصك الدراسي ليكون على علاقة تامة بما يحتاجه القطر من تخصصات وكوادر علمية ووظيفية .

نعم..... لا..... لا أعلم.....

٥. ما مدى علاقة دراستك الحالية ومدى نجاحها على طموحك الشخصي الوظيفي .

كثيرا..... بعض الشيء..... لا يعتمد.....

Student Questionnaire, for students of 18 years oldI. Socio-economic background

2. Date of Birth _____

3. Sex: Male Female _____
4. Name of the school _____
5. Father's education: Primary _____
 Secondary _____
 University _____
6. What kind of work does he do? _____

7. Mother's education: Primary _____
 Secondary _____
 University _____
 None _____
8. What kind of work does she do
 Housewife Working (specify) _____
9. Family incomeI.D. monthly _____

II. Educational background

1. What is your specific study
 Literary Scientific _____

2. When you complete your secondary education,
 what do you want to be _____

- | | |
|----------------------------------|----------------------------|
| 1. Natural scientist .. | 7. Businessman/manager .. |
| 2. Engineer .. | 8. Agriculturilist .. |
| 3. Social scientist .. | 9. Lawyer ... |
| 4. Health
professional .. | 10. Government employee .. |
| 5. Humanistic
professional .. | 11. Technician .. |
| 6. Teacher .. | 12. Other (specify) .. |
3. Reason for your undertaking such course _____

1. Reason for particular profession/qualification ..
2. Personal interest ..
3. Financial remuneration ..
4. Country's need ..
5. Social status ..
6. Parent's wishes ..

7. Ease and comfort in career ..
8. Father's occupation ..
9. Financial needs ..
10. No particular reason ..
11. Any other reason ..
4. Do you consider the courses you study now in your secondary school have relation to the courses you intend to attend in higher education? _____
 Yes No
5. In case of not getting enough marks to qualify you to achieve your aim, would you accept any courses at the university? _____
 Yes No
6. If yes, can you identify _____
 First choice Second choice _____
 Third choice _____
7. Do you prefer doing a training course besides your study? _____
 Yes No
8. If yes, at what level do you think it is better to start, at lower secondary level or upper level _____

9. In your opinion, do you think that the education you received in the formal educational system was relevant to the needs of the society, the job, and your further education? _____
 Very relevant ... Relevant ... Hardly relevant ... _____
 Not relevant ... _____

III. Career Information

1. Do you get any information on the employment possibilities open to you after your graduation, either before or after applying for higher education in the field you intended to study _____
 Yes ... No ... _____

2. If yes, check the source of your information
1. Parent ..
 2. Relatives or friends ..
 3. Students union or Youth centres ..
 4. Employment counsellor ..
 5. General information sources
 - a) Books ..
 - b) Newspapers ..
 - c) Radio ..
 - d) Others ..
3. If you did not receive any career information, would you like to have advice on course specialization and its relevance to aptitude, career preference and employment?
Yes ... No ... No opinion ...
4. If proper occupational guidance is made available to you, will you be willing to change your field of study to one more directly related to an occupation with a better future?
Yes ... No ... No opinion ...
5. To what extent does your choice of career depend on success in your present studies?
Greatly .. Somewhat dependant .. Not dependant ..

٠١ ماذا تتمنى ان تكون مشاركتك من موقعك الوظيفي ، ومدى استطاعتك في تقديم افضل عمل

- أ . في امكانية تغيير المناهج الدراسية
ب . في اعداد وسائل تعليمية
ج . في المساهمة بالدراسات التدريبية للكوادر التعليمية

٠٢ هل تود اضافة دروس مهنية تدريبية ومناهج صناعية الى المنهاج العلمي الذي يدرس حاليا ؟

- نعم لا

٠٣ اذا كان جوابك نعم . هل تذكر رجاءاً ما هي الدروس التي ترغب باضافتها حسب اهميتها رجاءاً :-

٠٤ هل ترغب في المشاركة في لجان تأليف الكتب واعداد الوسائل التعليمية :-

- نعم لا

أ . عضو في لجنة اعداد المناهج .

ب . عضو مشارك في اعداد اللجان العلمية .

ج . ان تكون مقيماً للمنهاج الجديد اذا وولت ذلك .

٠٥ أ . هل توضح رأيك رجاءاً حول اقتراح تدريس دروس نظرية علمية ومهنية عملية في مدرسة واحدة ؟

ب . ام هل تفضل تدريسها في مدارس منفصلة مخصصة للدراسات المهنية ؟

٠٦ واذا كنت تعتقد ان هناك صعوبات في دمج الدروس العلمية والادبية مع الدراسات المهنية العملية ، فما هي هذه الصعوبات ؟

أ . ليس هناك توافق بين الدروس العلمية والمهنية

ب . ليس هناك مدرسين متخصصين في اعطاء الدروس المهنية في المدرسة

ج . بدمج الدروس العلمية والعملية لايؤدي الغرض المتوخى

منه بتغير نظرة الطلبة السلبية نحو التعليم المهني

.....

د . لا اعتقد ان المدرسة تستطيع ان توفر التدريب اللازم للطلبة

وذلك لكثرة انواع العمل المختلفة النوعية والتدريب

.....

هـ . حتى لو تم التدريب في المدارس ليكون الطالب مؤهلا

لاختيار عملا مناسباً له ، فأنتهي أرى المدرسة غير مؤهلة

لهذا العمل

ز . لاسباب اخرى (يرجى ذكر واحد)

Teachers and Headmasters/mistresses

1. What do you like to see as your position in the needed changes as teacher/administrator?
 - a) Formulate the curriculum
 - b) Participate in choosing the method of instruction
 - c) Participate in general development of the training programme

2. Are you interested in seeing special courses for industrial/technical training added to the academic curriculum?
Yes No

3. If yes, could you specify what kind of courses you would like to see developed

4. Are you willing to co-operate with the committee of curriculum changes
 - a) as a member of the curriculum committee Yes .. No ..
 - b) as participant in the needed activities Yes .. No ..
 - c) in evaluating the new curriculum when you asked to
Yes .. No ..

5.
 - a) Could you please indicate what you think about introducing vocational courses within the general curricula
 - b) Do you prefer it to be studied in a different school

6. If there are difficulties in your opinion, what are they?
 - a) No coherence between academic and vocational courses ..
 - b) Lack of teachers with suitable training they are supposed to have ..
 - c) By linking vocational and academic courses does not mean better attitude towards manual work ..
 - d) Because of different types of jobs are too complex to follow vocational courses often disturb the flow of academic studies ..
 - e) Type of training at the educational institution is not sufficient for the skill needed at the job ..
 - f) Other (specify) ..

- القسم الثاني من البحث الميداني

المقابلات الشخصية :-

- س ١ . ماهي النتائج المتوخاة من سياسة تسهيل مهنة انتقال الطلبة من المرحلة المتوسطة الى الاعدادية بفرعها العلمي والادبي ؟
- س ٢ . رغم الضوابط الجديدة التي وضعتها وزارة التربية على الطلبة الذين يكملوا الدراسة المتوسطة ، نرى ان الطلبة مازالوا يتسربوا الى المرحلة الاعدادية بشكل سهل ، هل هناك ضوابط اخرى تزمع وزارة التربية في اتخاذها ؟
يرجى توضيحها أن أمكن
- س ٣ . الا تعتقدون بهذا الشكل الحالي ، وبهذا العدد الكمي الهائل من الطلبة على الدراسة الاعدادية سوف يؤثر على المستوى العلمي للطلبة ؟
- س ٤ . ما هو الدور الذي يلعبه التعليم الثانوي في التأثير على نوع الوظيفة اولا ، وسوق العمل ثانيا ، والتعليم العالي (الجامعي)
ثالثا ؟
- س ٥ . منذ ثورة ١٤ تموز ١٩٥٨ ولحد الان ، حاولت الجهات المسؤولة في اضافة بعض التعديلات ، وكذلك تغيير بعض النواحي في نظام التعليم ليكون موافقا لما يحصل من تغير في القطر على الاصعدة الاقتصادية والاجتماعية والسياسية .
فما هي نتائج كل هذا على نظام التعليم في الوقت الحاضر ؟

- س٦ . ونحن بصدد الكلام حول التغييرات التي حصلت على نظام التعليم ، فكم استفادوا الطلبة من هذه التغييرات حسب رأيك الشخصي علميا ، وماهي تأثير هذه التغييرات على خططهم المستقبلية ؟
- س٧ . ما هو رأيك في تنوع التعليم الثانوي ، حتى يكون موهلا لتدريب وتعليم الطلبة اولا ، وثانيا حتى يكون موازيا للتطور الحاصل في القطر على الاصعدة الاقتصادية والتقدم الصناعي والتطور الاجتماعي ؟
- س٨ . تقريبا ، معظم الدروس التي يتلقاها الطلبة في المدارس وخاصة في المرحلة الاعدادية بفرعها العلمي والادبي ، تؤولهم للتوجه نحو الجامعات ، فما هو رأيك بتقديم افضل الطرق التعليمية بتأهيل الطلبة علميا ومهنيا حتى يكون مواكبا للتطور الهائل في القطر ؟
- س٩ . في معظم الدول الاوربية حصلت مبادرات واتخذت خطوات جريئة من أجل تنوع التعليم الثانوي ، ودمج المناهج العلمية والمهنية وتدريبها بمدرسة واحدة ، فما هي الخطوات التي اتخذتها الجهات المسؤولة لتنوع التعليم الثانوي ؟
- س١٠ . انني هنا لأطالب بزيادة الدروس المهنية على حساب الدراسة العلمية . . بل أسأل عن ما اتخذته الجهات المسؤولة من خطوات حول اعادة تنظيم التعليم الثانوي بطريقة تتناسب والتطور الحاصل في القطر على الاصعدة الاقتصادية والاجتماعية والسياسية . . أرجو توضيح ذلك وذكر ما حصل من تغير وتطور .

Interviews

1. What are the consequences of this open door policy to the secondary education?
- 2.) Is there any advantage in adopting such a policy as this?
3. On the other hand, by adopting open door policy in secondary education do you not think this affects the policy of matching between the increased number and the quality of education?
4. What is the impact on the employment, first, labour market, second, and the pressure exerted on the higher education third?
5. During the last two decades, the government tried to implement different ideas to create an educational system which suits the economic, political and social demand, what is, in your opinion, the effect of all previous experience of the educational system of today?
6. Talking about the educational changes, how much do you think the students benefitted in relation to their academic preparation as well as their future plans?
7. What is your belief in diversifying the secondary education, to meet the economic development and the industrial advancement in the country?
8. Most of the courses studied by students are for the purpose of university preparation, what do you think the best way to prepare students academically as well as technically to meet the demands of the surrounding and their interest?
9. In many European countries, efforts have been made to combine general education with technical education under one roof, what does in a real term the government have done to bridge the gap between the general and technical courses?
10. I am not asking to increase the number of places in the vocational areas at the expense of the non vocational disciplines, to what extent has the reshaping of secondary education moved in this direction?

11. What is the reaction of the students, as well as their parents to combining technical and general education under one roof?
12. How much to you think this will affect their future plans?
13. And if it affects, then in what ways?
14. Special curriculum must be prepared to meet these changes, do you think you have enough adequately prepared teachers to handle this, and if not do have a plan to get over it?
15. Such changes will affect the examination system as well, are you fully prepared to meet this challenge, and in which way?

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بسم الله الرحمن الرحيم
الجمهورية العراقية



وزارة التربية

المديرية العامة للعلاقات الثقافية

مديرية التبادل الثقافي

رقم التلكس ٢٢٥٩

رقم صندوق البريد ٤٠٧٧

رقم الاضبارة أو رمز الشعبة :

العدد / ٥٢٩٩٢

التاريخ ١٩٨٤ / ١١ / ١١

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الى / مؤسسة التعليم المهني
المديرية العامة للتربية في محافظة بغداد / الرضاة
/ الكرخ = = = = =

م / بحث ميداني

يرجى التفغل بابداء المساعدة اللازمه للسيدة خوله فاضل محمد /
المدرسه في تربية الكرخ والمجازه دراسيا للحصول على شهادة الدكتوراه
في المملكه المتحده في موضوع التربية والتخطيط التربوي لزيارة بعض المدارس
المتوسطه والاعداديه والمهنيه ومقابلته بعض الساده ذوي الاختصاص في مجال
بحثها الذي ضرور القيام به والذي موضوعه تنويع التعليم الثانوي في العراق
من اجل توزير الكوادر الوسطى .

مع التشدير ...

فائزه اسماعيل مهدي

ع/الديبر العام

نسخه منه الى /

مديرية التبادل الثقافي / سهام

أميرة ١٠/١١

الميزان البرقي / تخطيط

س. ب. رقم ٨٠٠١

رقم التلكس ٢١٢٢١٨

هاتف

٢٠ - ٥٣٧٠٠٧١

٢٠ - ٥٣٧٠٠٨١

بسم الله الرحمن الرحيم



الجمهورية العراقية

وزارة التخطيط

لجنة الاستعدادات

٥٤٥

العدد /

التاريخ ٥٤ / ١١ / ١٩٨٤

الى / وزارة التربية / المديرية العامة للتخطيط التربوي

م / استبيان •

كاتبكم المرمم ٥٣٣٥٣ الموزع في ١٣/١١/١٩٨٤ •

اولا : اقرت لجنة الاستعدادات في اجتماعها بالجلسة طاعة واحدة وستعين العمقدة

بطارخ ٩٨٤/١١/٢٠ موافقتها على قيام السيد خوله فاؤل محمد طالبة

الذكوراه في جامعة الفهره / الملكة المتحد • باجراه استبيان يشمل كسل

من السيد وكيل وزارة التربية والسادة المدرراه المعلمين ومدراء الاقسام

كما يشمل المدرسين والطلاب في المدارس الاعدادية في بغداد / الكرخ

والرباطة واعداد يتي صالحة قادية ومدام والاسكان واعدادية تجارة الخضراة

للحمول على المعلومات لافرائي بحثها الموسوم (التخطيط لتبوع التلاميذ

الطابوي في العراق) •

طابها : تزود اللجنة بنسخة من الاستشارة بعد ملئها بالمعلومات

طالها : اقتنن القرار بصادقة السيد وزير التخطيط

للتنقل بالا طالع • مع التذير

رئيس اللجنة

اسماعيل ملسون

نسخه منه الى /

وزارة التعليم العالي والبحث العلمي / دائرة البعثات والملاحظات المتاقية

السيد • خوله فاؤل محمد

لجنة الاستعدادات

وزارة التربية

الديرة العامة للتخطيط التربوي
مديرية التوثيق والدراسات



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رقم التلكس ٢٢٥٩
رقم صندوق البريد ٤٠٧٧
رقم الاضبارة أو رمز الشعبة :
العدد / ٥٦٨١١
التاريخ ١٩٨٤ / ٨ / ٢

الس / المديرية العامة للتربية في محافظة بغداد / الكرخ
/ م تسهيل مهمة

إشارة إلى كتاب وزارة التخطيط - لجنة الاستهيانات المركزية
الرقم ٢٢٥ والمؤرخ في ١٩٨٤ / ١١ / ٢٥ .
وبموافقتها المتخذة بجلستها ١٦١ المنعقدة بتاريخ ١٩٨٤ / ١١ / ٢٠
نرجو تسهيل مهمة السيدة خولة فاضل محمد طالبة الدكتوراه
في جامعة لغبيرة / المملكة المتحدة ، لتطبيق الاستهيان الخاص
ببحثها الموسوم (التخطيط لتنويع التعليم الثانوي في العراق)
على بعض المدارس المتوسطة والاعدادية التابعة لمدبريتكم
شاكرين تعاونكم المستمر . مع التقدير .

سعدون رشيد عبد اللطيف

م . المدير العام للتخطيط التربوي

نسخة منه إلى /

وزارة التخطيط / كتابكم المشار اليه اعلاه للعلم . . . مع التقدير .
الديرة العامة للتربية في محافظة بغداد / الرصافة / لنفس الغرض اعلاه
مع التقدير .

الديرة العامة للتخطيط التربوي .
مديرية التوثيق والدراسات .
السيدة /

